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DEPARTMENT OF AFRICAN LANGUAGES AND LINGUISTICS

DÉPARTEMENT DE LANGUES AFRICAINE ET LINGUISTIQUE

A GENERATIVE APPROACH TO THE VERB MORPHOLOGY OF SAMBA LEEKↃ

A dissertation submitted in partial fulfillment of the requirements for the award of the postgraduate diploma **"Diplôme d'Etudes Approfondies"** *(D.E.A) in linguistics.*

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DEDICATION

To the Lord Almighty who has kept me alive
and who has given me the privilege to come out with
this work. May his name be glorified.

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A work like this one could never have been done single-handedly. I therefore owe much gratitude to the following people for their invaluable support and contributions:

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LIST OF ABBREVIATIONS AND SYMBOLS.

C	Consonant
V	Vowel
c.o	each other
s.o	someone
#	word boundary
+	morpheme boundary
~	alternates with
[...]	phonetic data.
/.../	phonemic data.
|...|	morphological data.
TBU	Tone bearing unit.
Sm	Subject marker
Tm	Tense marker
UAC	Universal Association Conventions.
UR	Underlying representation
PR	Phonetic representation
α place	place of articulation α
→	becomes or is realized as.
Λm	Aspectual marker
P.	Past tense
F.	Future tense
Perf.	Perfective
Prog.	Progressive
´ or H	High tone
` or L	Low tone
_ or m	Mid tone
HTS	High tone Spreading.

Table of Contents

CHAPTER I

GENERAL INTRODUCTION

I- 1. INTRODUCTION

This work sets out to study the way verbs are built up in Samba Leekɔ and how they function in the language. In this introductory part of the work, we will examine the geographical, historical, and linguistic location of the language as well as present a review of previous studies on the language, the aim of our study, the theoretical framework, methodology and the outline of our work.

I-2. GEOGRAPHICAL LOCATION

Samba also known as Tchamba or Chamba is spoken in Cameroon and in Nigeria. The Samba spoken in Nigeria ia called Samba -daka while the one spoken in Cameroon is called Samba -Leekɔ.

In Cameroon, the Samba language is spoken in two different provinces, namely the North province (in Faro Division) and the North West Province. In the North province, Samba-Leekɔ is spoken in localities like Poli, Béka, Laro, Wangay, Balkoss and Yelli. Our work however is focused on the Samba-Leekɔ spoken in the North West Province.

In the North West province, Samba Leekɔ is spoken in four different villages which are found in two divisions, namely: Mezam and Ngohketunjia divisions. These four villages are the following:

➔ Bali - Gham in Mezam Division.

➔ Bali - Kumbat, Bali - Gangsin and Bali - Gashu in Ngohketunjia Division.

Bali - Kumbat lies in the Northern territory, Bali-gashu at the centre and Bali-Gangsin at the South eastern region. The Cameroon population census of 1987 puts its population at about 42,000 inhabitants. Griffins, (1994), says Bali - Kumbat has the highest population of about 14,000 inhabitants and Bali - Gashu has the least population with about 1500 inhabitants.

The three villages found in Ngohketunjia Division are bounded geographically and linguistically on the north by Babanki (Kejom Ketingoh [824] and Bamali (Kənswei nsei [842]), on the west by Awing [917], on the east by Bafanji (məŋgambo [908]) and on the South by the Bamboutous Division in the west Province.

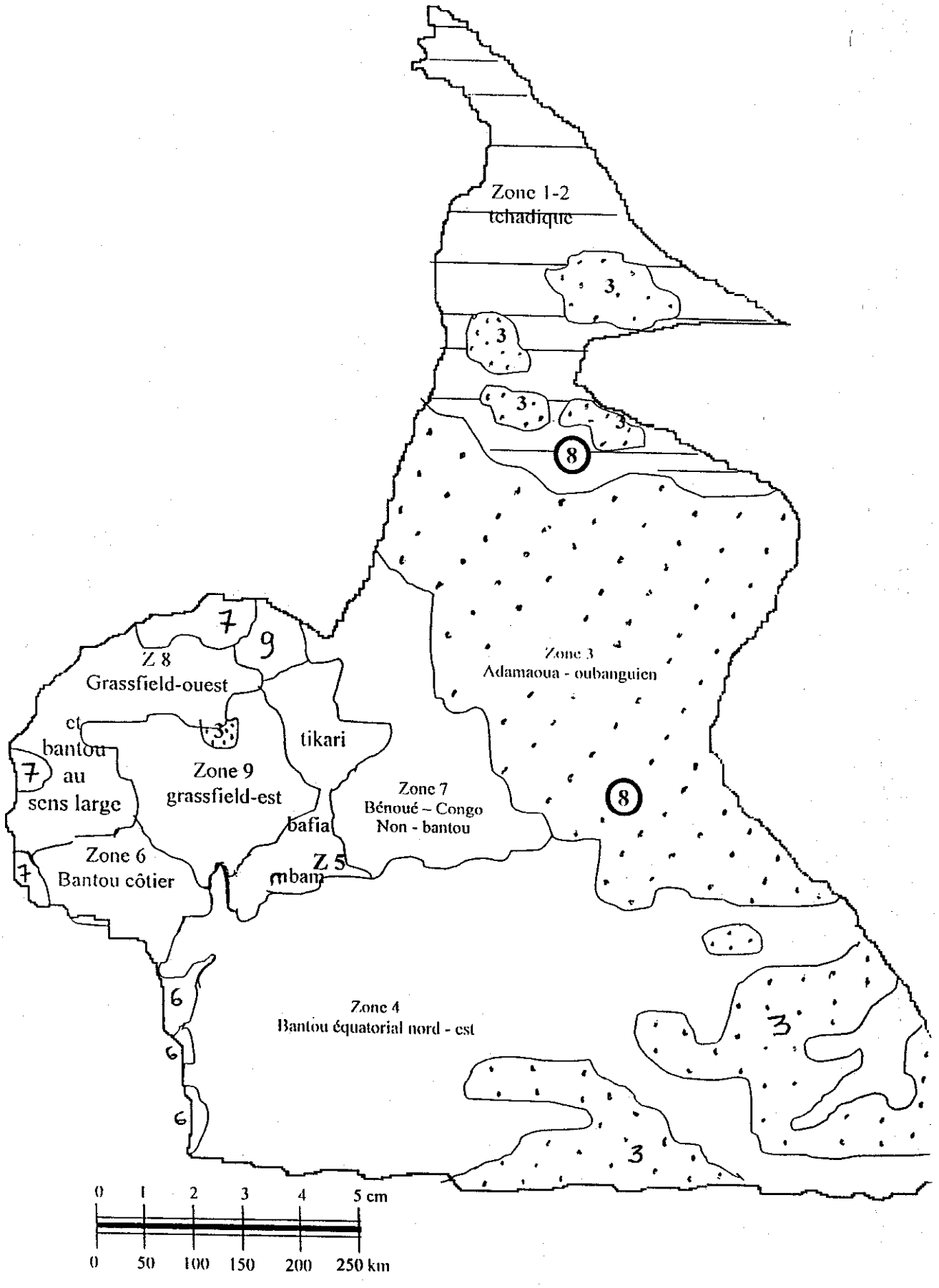
Bali - Gham found in MezamDivisionis located to the south west of the other three villages and it is separated from them by Awing [917) which bounds it on the eastern and northern regions. Bali-Gham is further bounded on the north and on the west by Akum (ngaməmbo [868]), a village which stretches Southwards into the Bamboutos Division.

The two different locations of these villages and the distant location of their brother village, Bali-Nyonga (see maps next page) suggest that they forced themselves into their present sites after their emigration from the North of Cameroon. Even in recent times, these Bali villages still have boundary problems with neighbouring villages.

Figure 1

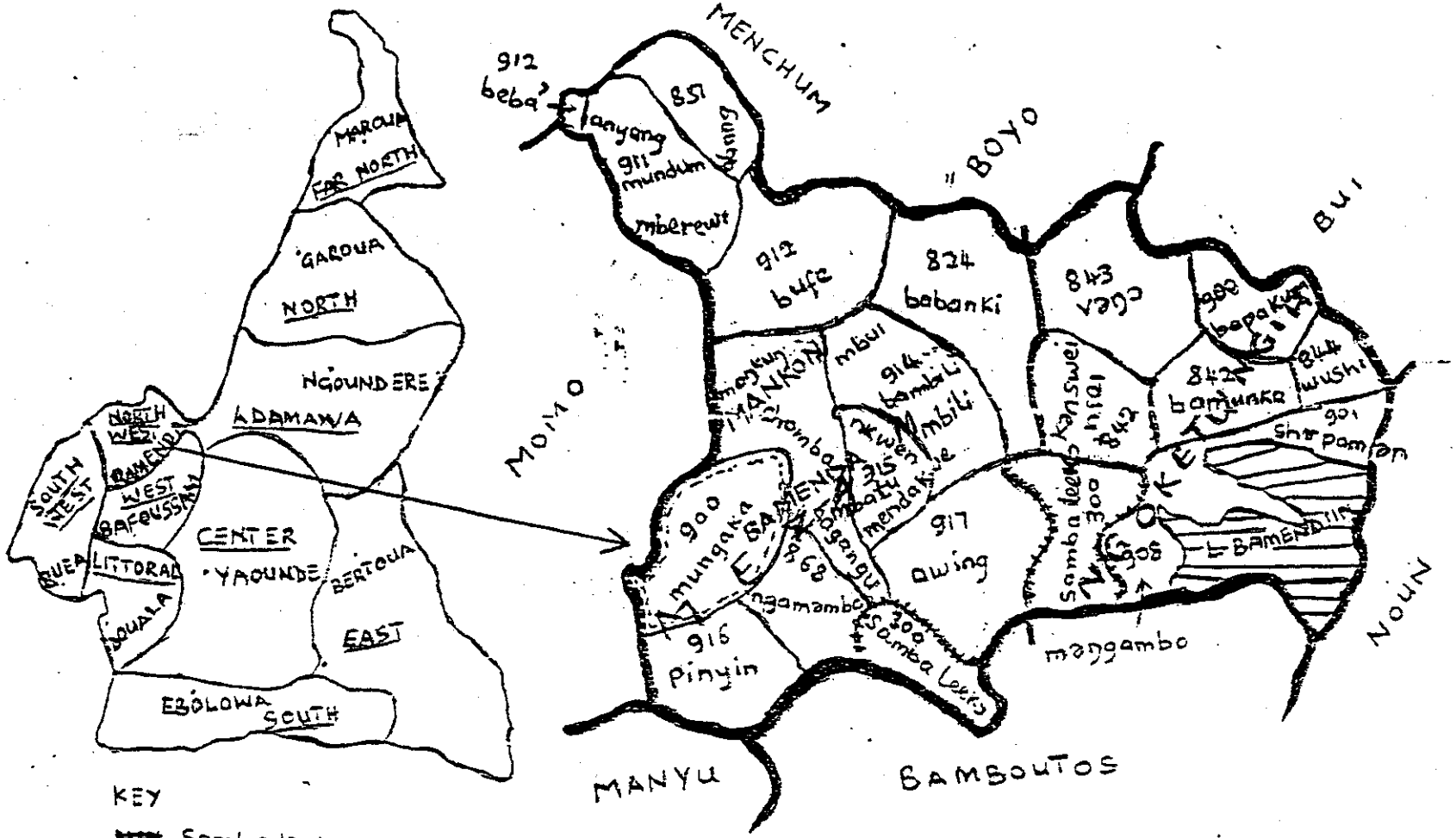
LINGUISTIC ZONES IN CAMEROON

Figure 1 shows the different linguistic zones found Cameroon. It shows the location of the Adamawa Oubangian family which is the linguistic family of Samba leekɔ and the area where it found in Cameroon



SAMBA LEEKO VILLAGES

Figure 3 IN NGOKETUNJIA & MEZAM DIVISIONS NORTH WEST PROVINCE



I-3. HISTORICAL BACKGROUND

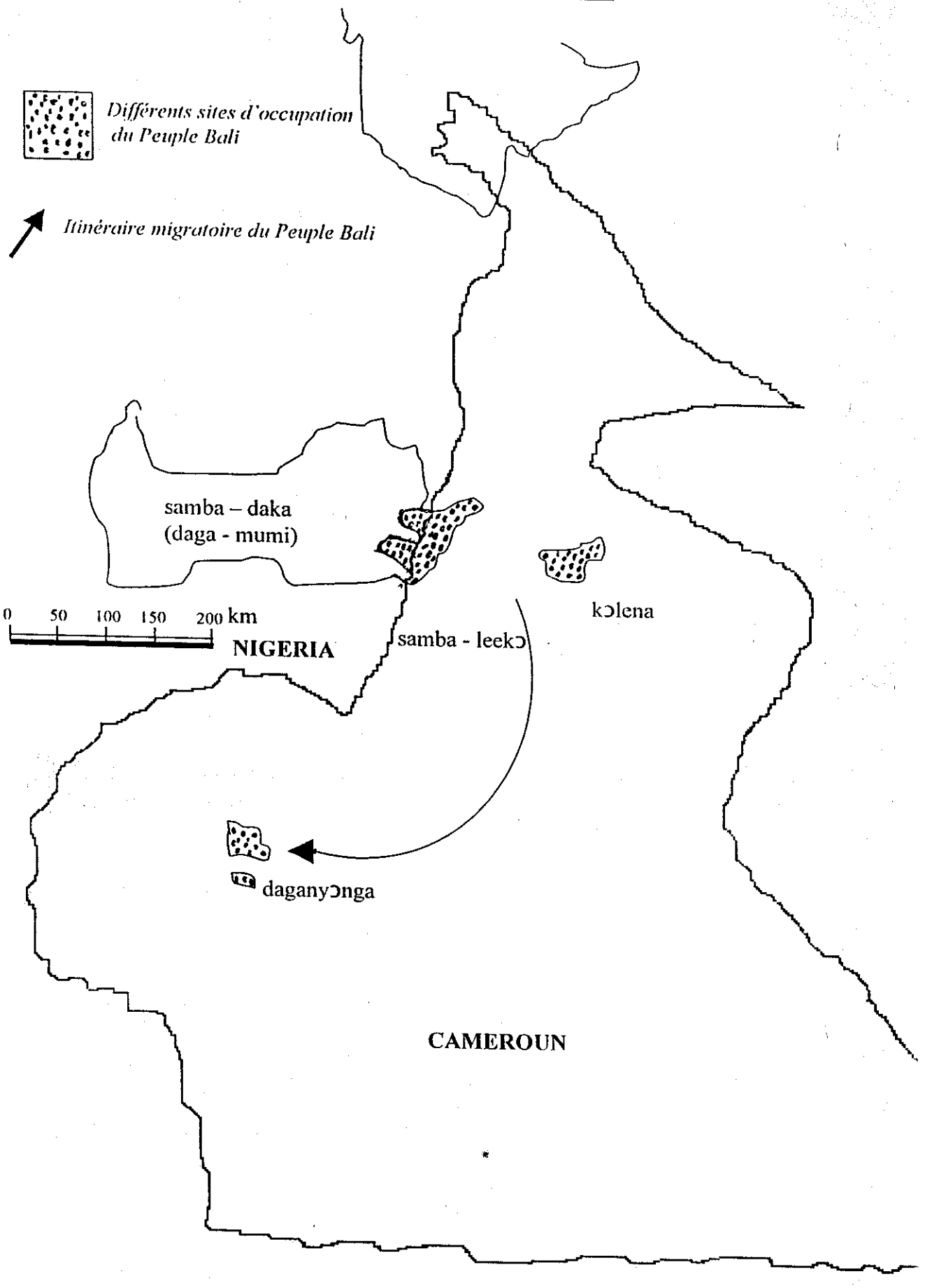
The Bali people of the North West Province of Cameroon emigrated from the Northern region of Cameroon and from across the borders of the present day Gongola state of Nigeria some 150 years ago (Griffins, 1994). Samba Leeko which is spoken in Cameroon originated from Samba Daka found in Nigeria. Its name evolved from Tschamba to Tchamba and then to Chamba. The people are called Chamba as in the appellation Bali Chamba (Nyamndi, 1988) and the language is called Samba as in Samba Leeko. Their migration originated from the time of the Fulani Jihad (Nyamndi, 1988). This is illustrated in the map on page 6.

These people were warmongers and they usually fought among themselves. Their warlike nature resulted in their migration to their present settlement. The death of their Fon, Gawolbe, in one of their many battles posed a hereditary problem. This led to a struggle for leadership which separated them into five different groups, each paying allegiance to a leader.

As a result of this, these five groups became five different villages including Bali Nyonga that speaks Mungaka[1] [900], a completely different language from Samba Leeko. (See map on page 7)

There are however some few lexical similarities that exist between Samba Leeko grassfield and Mungaka.

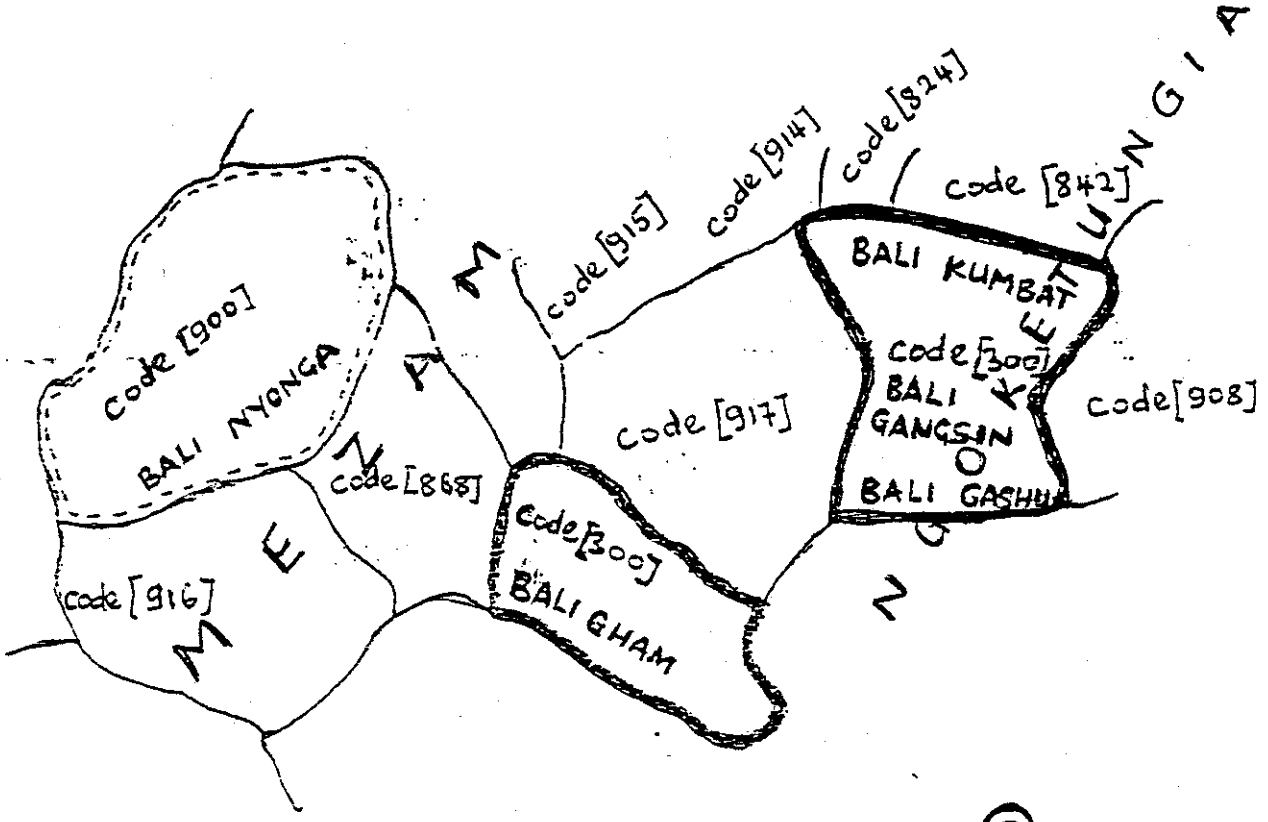
Figure 2 **Les parlers samba**



SOURCE : KOUONANG (1986 : 6)

THE SITUATION OF THE DIFFERENT SAMBA LEEKO VILLAGES AND ITS BROTHER VILLAGE, BALI NYONGA

Figure 4



KEY

Samba

Mungaka

I- 4. LINGUISTIC CLASSIFICATION

Samba Leeko is a language spoken in two regions of Cameroon, namely the North and the North West Provinces. Nyamndi (1988:14) calls the language spoken in the North Province Samba Leeko Benue and the one spoken in the North West province Samba Leeko grassfield.[2] Our focus in this work, as earlier said, is on Samba Leeko spoken in the North West province of Cameroon, that is Samba Leeko Grassfield. During our field work, we realized that the native speakers of this language are ignorant of the appellation 'Samba Leeko' as the name of their language. Some call it 'Mubaako' and others 'Daganyoŋga'.

The linguistic family tree of Samba Leeko originates from the Niger Kordofanian phylum. It then descends to the Niger Congo sub-phylum which is further divided into different families. From the Adamawa Oubangian family, it descends to the Adamawa sub-family and then to the Samba group which has Samba Leeko as its language. Samba Leek ɔ has different dialects but our focus is on Daganyonga (see genetic classification on the next page.)

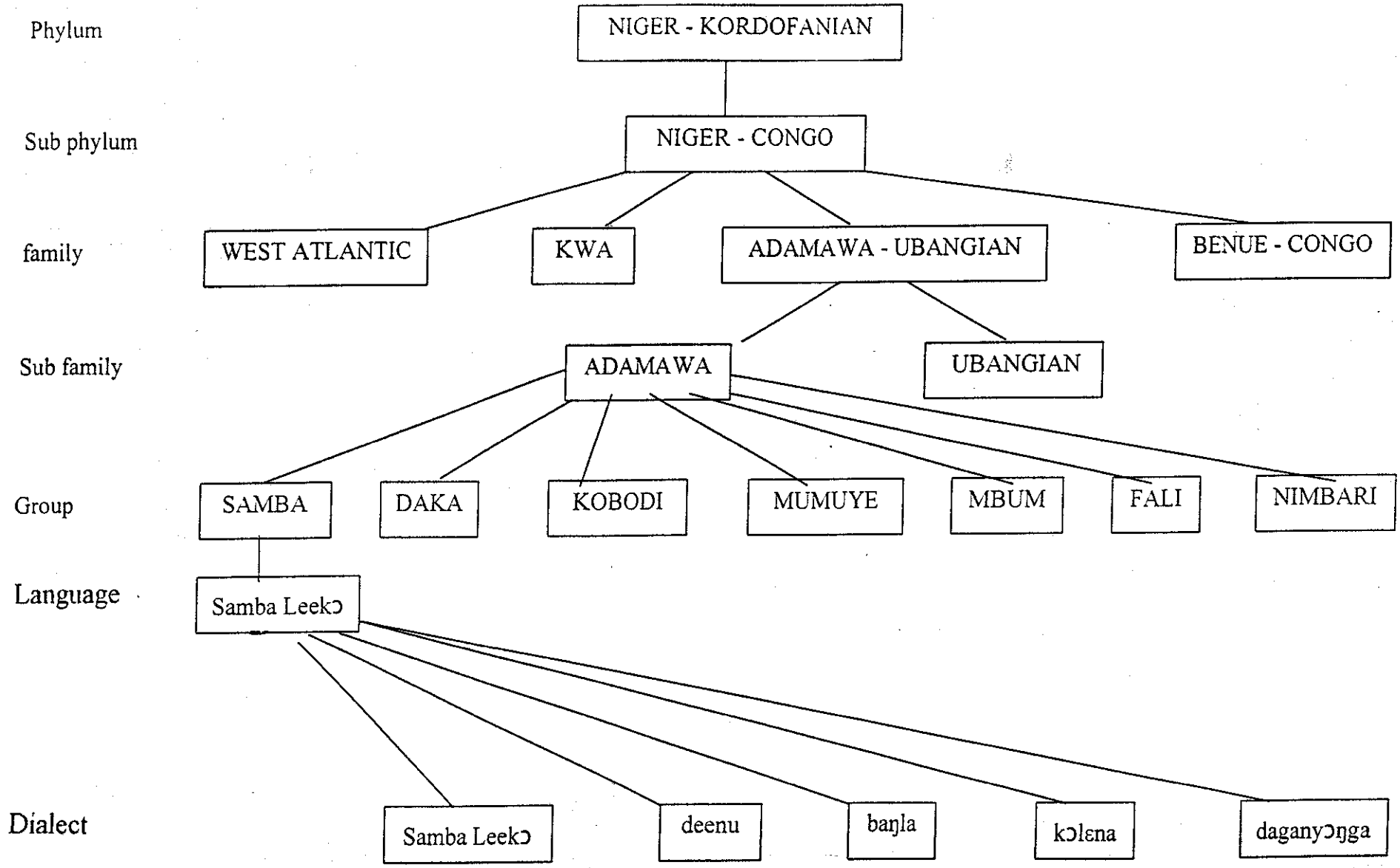
The Daganyonga dialect spoken in the North West Province exhibits some limited regional lexical and phonological differences depending on the village of the speaker(s). Thus, the Samba Leeko spoken by natives from Bali-Kumbat has some words which are different from those used by the natives from the other three villages: Bali-Gham, Bali-Gashu, and Bali-Gangsin. Below are some examples:

English	Bali-Kumbat	The others.
bridge	[kólàm]	[kópsìjá]
caterpillar (larva)	[sìsìá]	[sùsùá]
stomach	[bàɣàlá]	[bàɣá]
corner (of a house)	[sáŋsìá]	[tó?tìá]

This regional variation is however not significant since natives from these villages consider their language as one. Also, the level of intelligibility between them is very high. As a result, we will not consider these variations in our work, especially, given the fact that little or no differences were found in the verbal forms. We will thus consider the Samba Leeko spoken in the North West Province as one, irrespective of the region where it is spoken.

Figure 5

GENETIC CLASSIFICATIO N OF Samba Leekɔ



SOURCE : ATLAS LINGUISTIQUE DE L'AFRIQUE CENTRALE (ALAC), ATLAS LINGUISTIQUE DU CAMEROUN (ALCAM) GREENBERG'S CLASSIFICATION
Adapted by LOGA (1999)

I-5. PREVIOUS STUDIES ON THE LANGUAGE

Some previous work has been done on Samba Leeko. In 1976, NOSS worked on the phonology of Samba Leeko. In 1983, KOUONANG again worked on the phonology of Samba Leeko. Using the structural approach, they were able to establish a sound system for the language and also propose a writing system, the basis from which further scientific work could be done. LOGA in 1999 also worked on the phonology of Samba Leeko in a work entitled: *Aspects of Samba Leeko Phonology*. The demarcation between her work and that of NOSS and KOUONANG is that while NOSS and KOUANANG used the structural approach for their analyses, LOGA used the Generative and Autosegmental theoretical frameworks in hers. After presenting the sound system of Samba Leeko, LOGA (1999) went on to present the surface phonological and tonological alternations in the language and propose possible solutions to explain how they come about. After LOGA, the most recent work on which we have laid our hands is ESSAMBA's maîtrise dissertation entitled: *Morphologie Nominale du Sámbá* in which she works on noun morphology.

Apart from these works, we have not been able to lay hands on any other previous work on the language although it is possible that they might exist.

I-6. AIM OF STUDY AND CHOICE OF TOPIC

The aim of this work is to study the way verbs are built up in Samba Leeko and how they function in the language. Our goal is also to analyse all the surface phonological and tonological alternations witnessed in the language so as to come out with the exact underlying representations. As for our choice of topic, it was influenced by the fact that no work existed on

verb morphology in this language. We therefore thought it important to work on verb morphology because morphological studies are the first step towards the development of the grammar of a language. We also believe that this work will contribute to the study and development of the languages of the grassfield zone and our African languages in general.

I-7. THEORETICAL FRAMEWORK

In our work, we will use two theoretical models namely: Generative model for segmental analyses and the Autosegmental model for tonal analysis. This is in a bid to better describe the various verbal structures and explain the different morphophonological and morphotonological processes that occur in the language.

The Standard Generative Model of Chomsky and Halle (1968) recognizes two levels of representation: the systematic phonemic level (or Underlying representation) and the systematic phonetic level (Phonetic Representation). Phonological rules are considered to relate the Underlying Representation to the Phonetic Representation. While this theory aptly describes and explains segmental phenomena in languages, it has its own shortcomings in the handling of suprasegmental phenomena. That is why we have opted for the Autosegmental Model for tonal analyses.

As proposed by Goldsmith (1976), it is argued in the Autosegmental model that each tier is autonomous with its series of features. This means that the CV- tier, the segmental tier and the tonal tier function independently from each other. This autonomy facilitates the explanation of tonal phenomena.

I-8. METHODOLOGY

Our work started with literature review which orientated and guided us throughout the project. While going through literature review, we made an inventory of words in the English Language, made up mostly of verbs. A majority of the verbs were in isolation, some in phrases and some in sentences. This list was then taken to informants and read to them in English. They in turn translated the words, phrases and sentences into Samba Leeko, and the researcher wrote them down for subsequent analyses. Where difficulties were met, the researcher recorded the translations for subsequent careful transcription and analysis.

Below is the list of informants whom we consulted in Yaounde. All of them had lived in the village and had a mastery of their language.

INFORMANTS

NAME	PROFESSION
Mr. BILA Augustin	Teacher
Mr. SABLA Edward	Soldier
Mr.SAMA Alexandre	Student (ASTI)
Mr. Anthony NJIKAM	Teacher
Miss Doh Winifred	Hairdresser.
Mr. SABLA Henry	

I-9. OUTLINE OR WORK

This work is divided into five chapters. Chapter one presents the general introduction to the work, which gives the geo-historical location and the linguistic classification of Samba Leeko. It goes further to present the previous works on the language, the aim of study, the theoretical framework and methodology used, and an outline of the entire work.

The rest of the work is divided into 4 chapters. Chapters two, three and four, deal with Verbal Elements while chapter five deals with Verbal Flexion. Thus, chapter two presents a review of the Phonology of Samba Leeko and the morphophonological and morphotonological processes that exist in the language; chapter tree deals with the morphological structure of the verb and chapter four with verb derivation.

As for chapter five, it deals with the Verbal Flexion.

The work ends with a general conclusion.

END NOTES ON CHAPTER ONE

[1.] Mungaka is a language that originated from Samba Leeko but which has undergone a great deal of transformation to such an extent that there exists no mutual intelligibility between it and Samba Leeko. There are however some lexical similarities between them.

The Mungaka and Samba Leeko speakers still share the same social and cultural values like the belief in their fetish gods realised in the "Vomas" and the "ŋwanas" ; the " Voma" and the " ŋwana" being societal dances. They also perform their yearly festivals like the "Lela" which is a royal dance led by the Fon and which is called the Fon's dance. It is performed in all the Bali villages for purification.

[2.] After about 160 years of separation, there exists some intelligibility between Samba Leeko Grassfield and Samba Leeko Benue. Despite these changes, they still maintain some forms of similarities as observed by Griffins (1994). She makes reference to a comparison made by Edward Mueller between Samba Leeko Benue and Samba Leeko grassfield. It revealed that 85% of a word list of about two hundred words were lexically similar as illustrated below:

I. NOUNS:

English	Grassfield	Benue
" fish"	[díbá]	[díbá]
" foot"	[dùná]	[dùná]
" star"	[dùdùwá]	[dùdùwàá]
" neck"	[gààlá]	[gààlá]
" me"	[mɔ́]	[mɔ́]
" child"	[wàà]	[wàà]

II. VERBS.

As far as the verbs are concerned, we find that the verb roots remain the same even though the verb prefix and suffixes differ.

English.	Grassfield	Benue.
	Pfx root suffix	Pfx roots suffix
" to listen	[kə -zəŋ - mbà]	[ø - zəŋ - mbìá]
" to come"	[kə - jáá - mbà]	[ø - jàà - mbìá]
" to give"	[kə - pī ī - mbà]	[ø - pìì - mbìá]
" to kill"	[kə - lō$^{?}$ - mbà]	[ø - lò$^{?}$ - mbìá]
" to go"	[kə - dáà - mbà]	[ø - dáá - mbìá]
" to buy"	[kə - lɛ́b - bà]	[ø - lɛ́b - mbìá]

CHAPTER TWO

REVIEW OF SAMBA LEEKɔ PHONOLOGY AND TONOLOGY

INTRODUCTION

Many readers will pose questions on why a morphological study should start with phonology but we deemed it necessary in this work for methodological reasons. Defining the structuralist approach, Dubois et al (1973 : 453) say:

> " Les structuralistes définissent des niveaux ou des rangs ... Les phonèmes sont considérés par leurs combinaisons au rang du morphème et les morphèmes par leurs combinaison dans la phrase."

This means that phonemes and morphemes are intimately linked together since phonemes are the building blocks for morphemes. This brings in an intimate relationship between phonology and morphology. Given that the sounds of a language must be used in a morphogical study, it is of utmost importance that we identify these sounds and study them in order to better carry out our morphological study.

This chapter will be divided into two sections: part one which deals with phonology and part two which deals with tonology.

II-1. PHONOLOGY

Phonology is defined as the study of the sound systems of languages, that is , how speech sounds structure and function to convey meaning. In

this chapter, therefore, we will identify and study the sounds attested in Samba Leeko limiting ourselves only to the phonemic level since much work has been done on the phonology of the language (see NOSS, (1976), Kouonang (1983) and LOGA, (1999)).

Following the works of KOUONANG, (1983) and LOGA, (1999), Samba Leeko has nine (9) phonemic vowels namely: three front, three central, and three back vowels. NOSS, (1976) mentions only eight vowels namely: three front, two central and three back vowels. From our data analysis, we have however found out that the third central vowel [i] does exist so Samba Leeko has nine (9) vowels. KOUONANG, (1983) talks of the existence of long vowels but NOSS, (1976) LOGA, (1999) and ESSAMBA. (2000) do not mention them. This led us to study the issue of long vowels more closely and from our data analysis, we realised that long vowels do not exist in Samba Leeko as will be demonstrated later.

At the level of consonants, Samba Leeko has twenty-two (22) phonemic consonants.

Using examples, we will illustrate the phonemic vowels and consonants. After that, we will look at the morphophonological rules that apply in the language.

The alphabet used in our study is the International Phonetic Alphabet (API).

II. 1.1- PHONOLOGICAL INVENTORIES

II.1.1.1- Inventory of phonemic vowels.

Vowels are sounds that are produced with no constriction of the organs of articulation. In this section of the work, we will present all the phonemic vowels attested in Samba Leeko, discuss on the question of long

vowels, draw a phonemic vowel chart and present the distinctive features of these sounds

Samba Leeko has the following phonemic vowels:

[i] High front oral vowel. It occurs at word medial position as seen below: [ǹsèptîká] " sell" [kàlíîmbà] " To eat"

[ɨ] High central oral vowel. it occurs at word medial and final position as in: [gbísìjá] " chin" [sɨ́] Negative marker " not"

[u] High back rounded oral vowel. It occurs word medially as in: [ǹlùmká] " bite" [kə́dúsìmbà] " to burn"

[e] Mid high front vowel. It occurs word medially and finally as seen below: [kpèndèé] "plantain" , [kə̀(ɲwànì)déémbà] "to read (a book)"

[ə] mid high central unrounded vowel. it occurs at word medial position as in: [kàtə̄ə̄mbà] " to sweep" [kàsə́kmbà] " to keep"

[o] mid high back rounded vowel. It occurs word medially as seen below: [gówá] " rope" [gónúwá] " a trap" .

[ɛ] mid low front vowel. It occurs at word medial position as in the words: [kàbèsìmba] " to finish" [kàpɛ̄tbà] " to share"

[ɔ] mid low back rounded vowel. It occurs word medially as seen below: [kà tɔ̄ʔmbà] " to tear" [kà (lót)lɔ̄ɔ̄mbà] " to laugh"

[a] Low central oral vowel. It occurs at word medial and final position as in: [ŋ̀gámká] " talk" [kàdáàmbà] " to go".

II.1.1.1.1. The question of long vowels.

KOUONANG, (1983) identified six long vowels in Samba Leeko. They are as follows:

[ii], [ee], [ɛɛ], [aa], [uu] and [ɔɔ].

She used the following minimal pairs to justify the existence of these long vowels in the language.

(1)

i/ii	in	jí-	" to sing"
		-jíí-	" to accept"
e/ee	in	ké-	" pot"
		-kéé-	" to open"
ɛ/ɛɛ	in	mɛ́-	" tongue"
		-lɛ́ɛ́-	" to fish with a hook"
a/aa	in	gà-	" chief"
		-gàà-	" neck"
		-lá-	" to cultivate"
		-láá-	" to throw"
		-wáá-	" groundnut"
u/uu	in	-lú-	" to bite"
		-lúú-	" to burn"
ɔ/ɔɔ	in	vɔ̀m-	" breast"
		-bɔ̄ɔ̄n-	" wine"
		dɔ̀ɔ̀n-	" elephant"

After thorough work with informants, we realised that KOUONANG's assumptions were wrong for the few minimal and quasi-minimal pairs she presented (see data in (1)) to illustrate the pertinence of vocalic length were either wrongly transcribed or wrongly segmented. Working with informants through the list of words she presented, and making necessary corrections, we had the following transcriptions and segmentations:

(2)

(a) For the suspicious pair i/ii

[kə̀(náp) - jíì - mbà] " to sing (a song)."

[kə̀ - jíì -mbà] " to accept"

(b) For the suspicious pair e /ee

[kèè - lá] " pot"

[kə̀ - kèè - mbà] " to open

(c) For the suspicious pair ɛ/ɛɛ

[méɛ́ - lá] " tongue"

[k ə̀(lób) - léɛ̀- mbà] " to fish with a hook"

(d) For the suspicious pair a/aa

- [gàà - lá] " chief"

[gàà - lá] " neck"

- [kə̀(án)-lám -bà] " to cultivate" (cf.[ǹlàmáná] " imperative")

[kə̀ - lάá -mbà] " to throw" (cf. [ǹlàáká] " imperative")

[wáá - lá] " groundnut"

[e] For the suspicious pair u/uu

[kə̀ -lúm - bà] " to bite" (cf ǹlùmká " imperative)

[kə̀ - lúú - mbà] " to burn" (cf ǹlùùká " imperative)

[f] For the suspicious pair ɔ/ɔɔ

[vɔ̀m] " breast"

[bɔ̄ɔ̄n - á] " wine"

[dɔ́ɔ́n - á] " elephant"

Looking at the data we have just presented in (2) above, we realise that KOUONANG had a problem of wrong transcription for the minimal pairs that portray the distinction between the vowels i/ii, e/ee, ɛ/ɛɛ and a/aa). This is because all of these words as presented in the data in (2) have double vowels (ii, ee, ɛɛ and aa) and there is none with a single vowel.

The forms that present the distinction between u/uu and a/aa portray a problem of wrong segmentation when we compare KOUONANG's data in (1) and the data in (2).

It is obvious that looking at the verbs, [kə̀lúmbà] 'to bite' and [kə̀lúúmbà] ' to burn', for example, one can immediately draw the conclusion that the prefix is [kə̀-] while the suffix is [-mbà] and that the verb root portrays a difference in vocalic length: u/uu. This however is a hasty conclusion for as we study the various tenses in the language, we are able to come out with the exact verb roots and suffixes which are those presented in the data in (2e).

As for the forms that present the distinction between ɔ/ɔɔ in (2f), we can argue that they are not minimal pairs given that they have differences in tone. The first word, [vɔ̀m], carries a low tone while the two words with which it is contrasted bear mid tones and high tones respectively. It should be noted that in Samba Leekɔ, tone

plays a lexical function. Secondly, these words do not have the same consonants.

The conclusion we therefore draw is that long vowels do not exist in Samba Leeko for we have not been able to come out with any minimal pairs that portray distinction in vowel length. Also, the fact that out of four previous works on Samba Leeko, (NOSS 1976, KOUONANG 1983, LOGA 1999, and ESSAMBA 2002), only KOUONANG talks of long vowels is enough proof to the fact that she surely made mistakes in her analysis. Our conclusion therefore is that what KOUONANG calls long vowels is a concatenation of two identical vowels.

II.1.1.1.2 Phonemic Vowel chart.

From the phonemic vowels presented in section II.1.1.1, we can draw the following phonemic vowel chart.

Table 1: Phonemic vowel chart of Samba Leeko

	Front	Central	Back
High	i	ɨ	u
Mid high	e	ə	o
Mid low	ɛ		ɔ
Low		a	

II.1.1.1.3 Vowel distinctive feature matrix.

Table 2: Vowel distinctive feature matrix.

Sound / Features	i	ɨ	u	e	ə	o	ɛ	ɔ	a
Syllabic	+	+	+	+	+	+	+	+	+
High	+	+	+	-	-	-	-	-	-
Back	-	+	+	-	+	+	-	+	+
Round	-	-	+	-	-	+	-	+	-
ATR (Tense)	+	+	+	+	-	+	-	-	-
Low	-	-	-	-	-	-	-	-	+

II.1.1.1.4. Justification of vowel features.

SYLLABIC: [syll]: This is a feature assigned to sounds that can be the nucleus or peak of a syllable. All vowels are [+syll].

HIGH [high]: This feature is used to distinguish between high and non high vowels.

BACK [back]: It is used for sounds produced with the body of the tongue further back than the position of front vowels. These sounds are [+back] while front vowels are [-back].

ROUND [round]: This feature distinguishes between sounds that are produced with lip rounding, [+round], and those produced without lip rounding [-round].

ATR [ATR]: This feature is used to distinguish sounds with a tongue root advancement, [+ATR] from those produced with a tongue root retraction [-ATR].

LOW [low]. This feature is assigned to sounds that are produced by lowering the body of the tongue downward from its normal resting position.

II.1.1.2. INVENTORY OF PHONEMIC CONSONANTS.

Simo et al. (1993: 217) define consonants as:

> " any speech sound produced by momentarily stopping somehow and then releasing the air stream."

This means that consonants are produced with constriction of the organs of articulation. In the sections that follow, we will present the phonemic consonants in Samba Leeko, draw a phonemic consonant chart and present a distinctive feature matrix for these sounds.

In Samba Leeko, the following phonemic consonants are attested:

[p] Voiceless bilabial oral stop.

Examples:	[kəpētbà]	" to share"
	[m̀wɔ̀pká]	" break" (calabash)

[b] Voiced bilabial oral stop.

Examples:	[kəsátbà]	" to learn"
	[kúb]	" ten"
	[bèjá]	" money"

[t] Voiceless alveolar oral stop

Examples:	[kèmētbà]	" to lick"
	[táàlà]	" parlour"

[d] Voiced alveolar oral stop.

Examples: [kàdésìmbà] " to measure"

[díbá] " fish"

[k] Voiceless velar oral stop

Examples: [ǹsátká] " learn" (imperative)

[kàmá?mbà] " to do"

[g] Voiced velar oral stop

Examples: [kàgúúmbà] " to sew"

[gɔ̀ɣá] "animal"

[kp] voiceless labio-velar oral stop.

Examples: [kpàlàɣá] "ladder"

[kpàntìjá] " mortar"

[gb] Voiced labio-velar oral stop

Examples: [gbàsìjá] " forehead"

[gbáɣá] " chair"

[ʔ] Glottal stop

Examples: [kàkūʔmbà] " to chew"

[jíláʔ] " two"

[m] Bilabial nasal

Examples: [m̀màʔká] " do"

[kùkíìnù] " hen"

[n] Alveolar nasal.

Examples: [n̪ùnká] "fry"

[kùkíìnù] "hen"

[ɲ] Palatal nasal

Examples: [ǹɲùnká] " fry"

[kàɲísìmbà] " to fill"

[ŋ] Velar nasal

Examples: [túŋá] " ear"

[kpàŋkàlá] " millipede"

[f] Voiceless labio-dental oral fricative

Examples: [fíkábá] " spoon"

[fəəmá] " measles"

[v] Voiced labio-dental oral fricative

Examples: [m̀vàtká] " die" (imp.)

[kùváànù] " cock"

[s] Voiceless alveolar oral fricative.

Examples: [kàsákmbà] " to keep"

[kàbésìmbà] " to finish"

[z] Voiced alveolar oral fricative

Examples: [zììlá] " year"

[zíìná] " vein"

[ɣ] Voiced velar oral fricative

Examples: [tɔ̀glɔ̀ɣá] " worm"

[gɔ̀ɣá] "animal"

[dʒ] Voiced palato-alveolar affricate

Examples: [kədʒūbà] "to beat"

[dʒɔ̀lá] "mud"

[l] Lateral

Examples: [kəlāmbà] "to work"

[ǹlùmká] "bite" (imp.)

[w] Bilabial approximant

Examples: [m̀wɔ̀pká] "break (calabash)"
[wáálá] "groundnut"

[j] Palatal approximant.

Examples: [jéwàá] "knife"
[jìdlá] "head"

The syllabic nasals: [m̀], [ǹ], and [ŋ̀] are not phonemic given that their occurrence is predictable and can be captured by rules as will be discussed in our subsequent analysis.

II.1.1.2.1. Phonemic Consonant Chart

Following the inventory of phonemic consonants discussed above, we can draw the phonemic consonant chart below:

Table 3: Phonemic consonant chart of Samba Leeko

Place / Manner	Bilabial	Inter-dental	Alveolar	Palato-alveolar	Palatal	Velar	Labio-velar	Glottal
Plosive	p b		t d			k g	kp gb	ʔ
Nasal	m		n		ɲ	ŋ		
Fricative		f v	s z		ɣ			
Affricate				dʒ				
Lateral			l					
Approximant	w				j			

II.1.1.2.2 CONSONANT DISTINCTIVE FEATURE MATRIX

SOUNDS / FEATURE	m	n	ɲ	ŋ	p	b	t	d	k	g	kp	gb	ʔ	f	v	s	z	ʤ	L	ɣ	w	j
CONSONANTAL	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	−	−
SYLLABIC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTERIOR	+	+	-	-	+	+	+	+	-	-	-	-	-	+	+	+	+	+	+	-	+	−
CORONAL	-	+	+	-	-	-	+	+	-	-	-	-	-	-	-	+	+	-	+	-	-	-
CONTINUANT	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	-	+	+	+	+
NASAL	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	−	-
LATERAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
VOICE	+	+	+	+	-	+	-	+	-	+	-	+	-	-	+	-	+	+	+	+	+	+
ROUND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	−
DEL REL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-

II.1.1.2.3. JUSTIFICATION OF CONSONANT FEATURES

CONSONANTAL [cons]: A sound is [+cons] if it is produced with constriction (interruption of the air stream) in the oral cavity. This feature is used to distinguish the rest of the consonants from the glottal stop and semi-vowels which are [-cons]

ANTERIOR [ant]: A sound is [+ant] if it is produced with constriction at the teeth ridge or farther forward. This feature is used to distinguish between bilabial, interdental and alveolar sounds from the rest of the sounds.

CORONAL [cor]: The feature [+cor] describes sounds produced by raising the blade of the tongue (including the tip) towards the teeth, alveolar or hard palate. It distinguishes alveolar and palatal sounds from the rest of the sounds which are [-cor].

CONTINUANT [cont]. The feature [+cont] describes sounds produced with air flowing continuously out of the oral cavity or the nasal cavity. It differentiates fricatives, glides and laterals which are [+cont] from stops, affricates and nasals which are [-cont].

NASAL [nas]. Nasal sounds are those produced with air flowing simultaneously through the nasal and oral cavities. It differentiates between nasal and oral sounds.

VOICE [voice]: A sound is [+voice] if it is produced with the vocal cords vibrating. This feature is used to distinguish between voiced and voiceless consonants.

LATERAL [lat]: This feature refers to sounds produced when the tip of the tongue is raised to touch the alveolar region allowing air to flow on both sides of the tongue.

ROUND [rd]: This feature is used to describe sounds produced with lip rounding.

DELAYED RELEASE [del rel]: A sound is [+del rel] when during its production, air is trapped somehow and released later. This feature distinguishes [dʒ] from the other sounds.

SYLLABIC [syll]: It refers to sounds that can constitute the nucleus of a syllable. All consonants except for syllabic nasals are [-syll]. Glides are both [-consonantal] and [-syllabic].

II.1.2. MORPHOPHONOLOGICAL RULES

Our studies on the verb in Samba Leeko portay a number of morphophonological processes which will be presented in this section of the work. We will begin by listing all the processes,captured by rules, then we will present each morphophonological process with illustrative data, clearly state the rule capturing it and show how it applies.

To begin with the presentation of the processes, the following morphophonological processes occur in Samba Leeko:

-Nasal Asimilation
-Vowel deletion
-Glide insertion
-Lateral insertion
-Frication
-Voicing
-Devoicing
-Dissimilation.

II.1.2.1. NASAL ASSIMILATION

We talk of assimilation when a segment takes on the feature(s) of a neighbouring segment. It could be a consonant taking up the features of

another consonant or vowel or a vowel taking up the feature(s) of another vowel or consonant.

In Samba Leeko, just as in many other African languages, we notice a process of nasal assimilation. This is a process whereby a nasal assimilates the place of articulation of the following consonant. Consider the data below:

(3)

a. (i)		(ii)	
kàjáámbà	"to come"	ǹjáákáˊ	"come"
kàlúúmbà	"to burn"	ǹlùùkáˊ	"burn"
kàɗáàmbà	"to go"	ǹdáákáˊ	"go"
kàtīmbà	"to push"	ǹtìʔkáˊ	"push"
kàzáŋmbà	"to listen"	ǹzàŋkáˊ	"listen"
kàɲènmbà	"to choose"	ǹɲènkáˊ	"choose"
kàdʒūbà	"to beat"	ǹdʒùbkáˊ	"beat"
kànápnāāmbà	"to dance"	ǹnàànábáˊ	"dance"

b. (i)		(ii)	
kàmāāmbà	"to deny"	m̀mààkáˊ	"deny"
kàpíímbà	"to give"	m̀pííkáˊ	"enter"
kàbīmbà	"to rot"	m̀bl̀mkáˊ	"rot"
kàátbà	"to cut"	m̀vátkáˊ	"cut"
kàwɔ̄pbà	"to break (calabash)"	m̀wɔ̀pkáˊ	"break"

b. (i)		(ii)	
kàgámbà	"to talk"	ŋ̀gámkáˊ	"talk"
kàkɛ̄ʔsìmbà	"to help"	ŋ̀kɛ̀ʔsìkáˊ	"help"

Given the data in (3) above, the forms in the columns labelled (i) are verbs in the infinitive while those in the columns labelled (ii) are verbs in the imperative mood. Looking at the forms in column (ii), we notice that the verb prefix [kə̀-] and the verb suffixes [-bà] and [-mbà] are absent. We are left with the verb root which takes on the imperative marker which as will be demonstrated later is the discontinuous morpheme [Ǹ...ká].

When the homorganic nasal, [Ǹ] is affixed to the verb root, we notice a process of nasal assimilation. This explains why in the forms in (3a), column ii), [Ǹ] is realized as the alveolar nasal, [ǹ], before alveolar, palato-alveolar and palatal sounds. In the forms in (3b), it becomes the bilabial nasal, [m̀], before bilabial and interdental sounds and in the forms in (3c), it is realized as the velar nasal, [ŋ̀], before velar sounds.

This morphophonological process can be captured by the rule below:

(4) Nasal assimilation rule:

N --> [α place] / -- [α place]

Prose statement: A nasal assimilates the place of articulation of the following consonant.

(5) Sample derivations[1]

	ǹsáŋsìká "meet"	m̀mə̀ə̀ká "deny"	ŋ̀gámká "talk"
UR /	Ǹ- sáŋsì-ká	Ǹ-mə̀ə̀-ká	Ǹ-gám-ká /
R_1	\	\	\
Nasal	\	\	\
assimilaton	n	m	ŋ
PR	[ǹsáŋsìká	m̀mə̀ə̀ká	ŋ̀gámká]

[1] In our derivations in this part of the work, we will not present underlying tones. The question of underlying tones will be treated under the section dealing with tonology.

II.1.2.2. VOWEL DELETION

(6)

a. (i)		(ii)	
kə̀ dʒūbə̀.	"to beat"	mə́ dʒùbà	"I have beaten"
kə̀ gámbà	"to talk"	mə́ gámà	"I have talked"
kə̀ ɲə̄ə̄mbà	"to drink"	mə́ ɲə̀ə̀à	"I have drunk"
kə̀ mə̄ə̄mbà	"to deny"	mə́ mə̀ə̀à	"I have denied"

b. (i)		(ii)	
kə̀ dáàmbà	"to go"	mə́ dáà	"I have gone"
kə̀ jáámbà	"to come"	mə́ jáá	"I have come"

In the data in (6), the forms in column (i) present the verbs in the infinitive while those in column (ii) are in the present perfect tense, conjugated with the first person singular pronoun, [mə́], "I". When we examine the verbs in (6a, column ii), we notice that they are made up of: the verb root + [à]. This vowel [à], as will be demonstrated later, is the aspectual marker for the perfective aspect. In the forms in (6b, column ii), the verbs are constituted of the verb root only, in spite of the fact that they are in the present perfect tense. This leaves us with the conclusion that the vowel [à], which acts as aspectual marker has been deleted. The reason for this deletion is that Samba Leeko does not permit a sequence of three identical vowels within one word. Thisexplains why sequences like [mə̀ə̀à, ɲə̀ə̀à] [2] are admitted while the sequences [*jááà, dáàà] are not. To break the three identical vowel sequence, the last vowel is deleted giving us the forms in (6b, column ii).

---

[2] Sequences with three contiguous vowels like [mə̀ə̀à, ɲə̀ə̀à] are very rare in the language. They occur only with the schwa sound, [ə].

The vowel deletion rule can be formulated as follows:

(7) Vowel deletion rule.

a --> ø / aa --- #

Formal statement:

$$\begin{bmatrix}+\text{syll}\\+\text{low}\end{bmatrix} \text{ --> } \text{ø} \,/\, \begin{bmatrix}+\text{syll}\\+\text{low}\end{bmatrix} \quad \begin{bmatrix}+\text{syll}\\+\text{low}\end{bmatrix} \text{ ---- } \#$$

Prose statement: The [+low] vowel [a] is deleted when it occurs after the sequence [aa] at word final position.

(8) Sample derivation

mə̀ mə̀ə̀à mə́ jáá mə́ dʒùbà

UR	/ mə́ mə̀ə̀-à	mə́ jáá-à	mə́ dʒùb-à /
Vowel		:	
del		:	
a->ø/aa-#	---	ø	---
PR	[mə́ mə̀ə̀à	mə́ jáá	mə́ dʒùbà]

II.1.2.3. GLIDE INSERTION

Glide insertion refers to the insertion of a glide in the middle of contiguous vowels to break vowel clusters. For this to happen, the contiguous vowels must occur across morpheme boundary. Consider the data below:

(9)

a. /mə́ líí-à/	--> [mə́ lííjà]	"I have eaten"
/mə́ sàsì-à/	--> [mə́ sàsìjà]	"I have scattered"
/mə́ kətsì-à/	--> [mə́ kətsìjà]	"I have reduced"
/mə́ kətsì-fá-à]	--> [mə́ kətsìfájà]	"I have reduced them"
/lè-á/	--> [lèjá]	"farm"
b. /mə́- lɔ̀ɔ̀-à/	--> [mə́ lɔ̀ɔ̀wà]	"I have laughed"
/mə́ wùù-à/	--> [mə́ wùùwà]	"I have sewn"
/mə́ gùù-à/	--> [mə́ gùùwà]	"I have planted"
/lílò-á/	--> [lílòwá]	"thief"

The data in (9) present verb and noun roots plus suffixes. The verb roots are accompanied by the perfective aspectual marker, [à]. The verbs are conjugated with the first person singular, [mə́]. The noun roots on their part are followed by the noun a noun suffix [á].

In the forms in (9a), all the verb and noun roots end in vowels with the feature [-round]. When the noun suffix, [à], and the perfective aspectual marker, [á], are added, we notice that the palatal glide, [j] is inserted in btween the contiguous vowels that are created.

As for the forms in (9b), we find that all the verb and noun roots end with the rounded vowels [ɔ,u, o]. When these vowels get into contact with the noun suffix and the perfective aspectual marker, the bilabial glide, [w], is inserted in between them.

This leads us to the conclusion that a bilabial glide, [w] is inserted after rounded vowels while a palatal glide, [j] is inserted after unrounded vowels. These processes can be captured by the following rules:

(i) Bilabial glide insertion rule:

$$\sigma \text{ --> } w \;/\; \begin{bmatrix} ɔ \\ o \\ u \end{bmatrix} \text{ -- } +V$$

(ii) Palatal glide insertion rule:

$$\sigma \text{ --> } j \;/\; \begin{bmatrix} i \\ e \\ a \end{bmatrix} \text{ -- } +V$$

These two rules can be merged to form one general rule which can be presented as below:

(10) Glide insertion rule

$$\sigma \text{--> } \begin{bmatrix} w \\ j \end{bmatrix} \;/\; \left\{ \begin{bmatrix} ɔ \\ o \\ u \end{bmatrix} \; \begin{bmatrix} i \\ e \\ a \end{bmatrix} \right\} \text{ -- } +V$$

Formal statement:

$$\sigma \text{--> } \begin{bmatrix} -\text{cons} \\ -\text{syll} \\ \alpha \text{ round} \end{bmatrix} \;/\; \begin{bmatrix} \text{syll} \\ \text{cons} \\ \alpha \text{ round} \end{bmatrix} \text{ --- } + \begin{matrix} \text{syll} \\ \text{cons} \end{matrix}$$

Prose statement

A glide is inserted in between two vowels at morpheme boundary.

Exceptions: Verb roots ending in [əə] and [aa]. See section II.1.2.2.

II.1.2.4. LATERAL INSERTION

In Samba Leeko, there are two processes of lateral insertion: one which inserts a lateral sound in between contiguous vowels and the other which inserts a lateral sound between [t] and a following [a]. To distinguish between these two processes, we shall call one Lateral Insertion 1 and the other lateral Insertion 2.

II.1.2.4.1. LATERAL INSERTION 1

This morphophonological process concerns the insertion of a lateral sound, [l], in btween contiguous vowels which is one of the ways in which Samba Leeko simplifies unidentical vowel clusters at morpheme boundary. This lateral insertion rule is phonologically conditioned given that it occurs only in verb roots ending in the vowel [e]. This is illustrated in the data in (11).

(11)

a. /mə dʒùb-à/ --> [mə dʒùbà] "I have beaten"
/mə lɛ́b-à/ --> [mə lɛ́bà] " have bought"

b. /mə déé-à/ --> [mə déélà] "I have read"
/mə kèè-à/ --> [mə kèèlà] "I have opened"

In the data in (11a), the suffixation of the perfective aspectual marker, [à], has no influence on the verb roots given that they end in consonants. In (11b) on the contrary, the addition of the aspectual marker [à] provokes a lateral insertion process in between the vowels ; [ee and [a]. This process can be captured by rule as below:

(12) Lateral Insertion Rule 1.

σ --> l / [ee] --- +V

Formal Statement:

$$\sigma \text{ --> } [+\text{lat}] \; / \; \begin{bmatrix} +\text{syll} \\ -\text{cons} \\ -\text{high} \\ -\text{low} \end{bmatrix} \quad \begin{bmatrix} +\text{syll} \\ -\text{cons} \\ -\text{high} \\ -\text{low} \end{bmatrix} \; \_\_ \; + \begin{bmatrix} +\text{syll} \\ -\text{cons} \end{bmatrix}$$

Prose statement

A lateral sound is inserted in between the vowels [ee] and a following vowel at morpheme boundary.

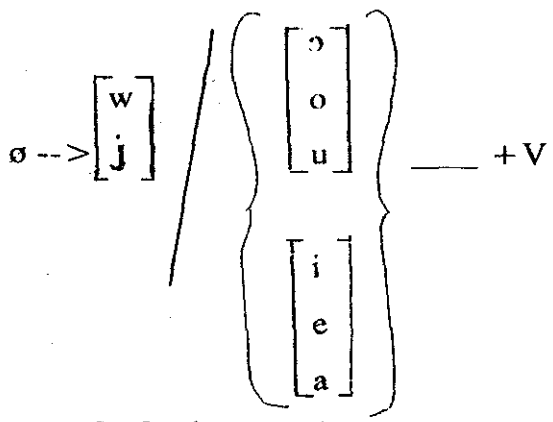
(13) ORDERING OF VOWEL CLUSTER SIMPLIFICATION PROCESSES.

At this point of our work, we need to present a summary of vowel cluster breaking processes in Samba Leeko. We have noticed that Samba Leeko is a language that does not accept unidentical vowel clusters, especially at morpheme boundary. It therefore uses many phonological processes to break these vowel clusters. Given the processes we have just identified, it is necessary to order them if we want to come out with right derivations. Following Mohanan's parameter for ordering rules, (Mohanan 1986 : 9, 24), we have to start from more specific rules to general ones. Thus we propose the following order for vowel cluster simplification processes in Samba Leeko.

1. Vowel deletion: V --> ø / aa --+V

2. Lateral Insertion: ø --> l / ee -- +V

3. Glide insertion:



Exception: The vowel sequence [ee] tolerates clusters of three vowels.

Given these rules, we can have the derivations below for the following expressions:

[mɔ́ lííjà]	"I have eaten"
[mɔ́ mɔ̀ɔ̀à]	"I have denied"
[mɔ́ j̀áá]	" I have come"
[mɔ́ wùùwà]	"I have planted"
[mɔ́ kɔ̀ɔ̀là]	"I have opened"

(14) Sample derivations for cluster simplification processes.

	mə̀ lííjà	mə̀ mə́ə́à	mə́ ɟ áá	mə́ wùùwà	mə́ kèèlà
UR / /	mə̀ líí-à	mə̀ mə́ə́-à	mə́ ɟ áá-à	mə́ wùù-à	mə́ kèè-à
R1 Vowel deletion V->σ/aa-+V	___	___	ø	___	___
R2: Lat. Insertion σ ->l/ee-+V	___	___	___	___	l
R3: Glide insertion	j	___	___	w	___
PR	[mə̀ lííjà	mə̀ mə́ə́a	mə́ ɟáá	mə́ wùùwà	mə́ kèèlà]

II.1.2.4.2. LATERAL INSERTION 2

A second process of lateral insertion is attested after verb roots that end in [t] when they are followed by a vowel at word final position. This process is due to the fact that Samba Leekɔ does not permit the sequence [t-a] at word final position. As such, each time that this sequence occurs at word final position, a lateral sound has to be inserted in between the two sounds.

This process is presented in the data below:

(15)

a. [mə́ dʒùb] "I beat"

[mə́ lùm] "I bite"

[mə́ màʔ] "I do"

[mə́ ɲèn] "I choose"

[mə̀ mèt] "I lick"
[mə̀ vàt] "I die"
[mə̀ vət] "I cut"
[mə̀ sát] "I learn"

b. /mə̀ dʒùb-à/ [mə̀ dʒùbà] "I have beaten"
/mə̀ lùm-à/ [mə̀ lùmà] "I have bitten"
/mə̀ mà?-à/ [mə̀ mà?à] "I have done"
/mə̀ ɲèn-à/ [mə̀ ɲènà] "I have chosen"

c. /mə̀ mèt-à/ [mə̀ mètlà] "I have licked"
/mə̀ vàt-à/ [mə̀ vàtlà] "I have died"
/mə̀ vət-à/ [mə̀ vətlà] "I have cut"
mə̀ sát-à/ [mə̀ sátlà] "I have learned"

d. /mə̀ mèt-án-à/ [mə̀ mètánà] "I have licked something"
/mə̀ vət-án-à/ [mə̀ vətánà] "I have cut something"
mə̀ sát-án-à/ [mə̀ sátánà] "I have learned something"

In the forms in (15c), the verb roots end in [t] which is followed by the vowel [a] at word final position. In (15b), the verb roots end in other sounds other than [t]. Comparing the forms in (15c) and (15b), we notice that the lateral sound [l] is inserted in the forms in (15c) but not in the forms in (15b). This pushes us to conclude that this insertion is due to the presence of the alveolar sound [t] at the end of the verb root. A look at the forms in (15a) however indicates that [t] alone does not trigger [l] insertion given that [t] occurs at word final position and we find no lateral sound inserted. The possible solution is that [l] insertion is triggered by the sequence [t-a]. This solution however presents some weaknesses when applied to the forms in (15d) where the sequence [t-a] does not provoke [l]

insertion . To explain why Lateral insertion occurs in (15c) but not in (15d), we need to look at the position of the sequence [t-a]. In (15c), the sound sequence [t-a] occurs at word final position, whereas in the forms in (15d), this sequence occurs at word medial position. We can thus say that for lateral insertion to occur, the [t-a] sequence must be at word final position.

The process of lateral insertion can therefore be captured by rule as follows:

(16) Lateral Insertion rule 2

ø --> l / t -- a#

Formal statement:

$$\text{ø} \dashrightarrow [+\text{lat}] \;/\; \begin{bmatrix} +\text{cons} \\ +\text{cor} \\ -\text{voice} \\ -\text{son} \\ -\text{cont} \end{bmatrix} \_\_\_\_ \begin{bmatrix} +\text{syll} \\ -\text{cons} \\ +\text{low} \end{bmatrix} \#$$

Prose statement:

A lateral sound is inserted in between the voiceless alveolar stop [t] and a following vowel, [a], at word final position.

II.1.2.5. FRICATION

Frication refers to the change of a sound from a non-fricative to a fricative sound. Consider the data in (17).

(17)

a. Verbs.

(i)	(ii)	(iii)
[kàsákbà] "to seize"	[mɔ́ sàk] "I seize"	[mɔ́ sàɣà] "I have seized"
[kàlākbà] "to shout"	[mɔ́ làk] "I shout"	[mɔ́ làɣà] "I have shouted"

[kàsókbà] "to put" [mə́ sə́k] "I put" [mə́ sə́ɣà] "I have put"
[kə̀ɟākbà] "to look at" [mə́ ɟàk] "I look at" [mə́ ɟàɣà]"I have looked at"

b. Nouns.

[gə̀glī]	"the animal"	[gə̀ɣá]	"animal"
[gbàglī]	"the chair"	[gbàɣá]	"chair"
[lə́glī]	"the hut"	[lə́ɣá]	"hut"

Looking at the data in (17a), we notice that the verbs present an alternation between [k ~ ɣ]. The question we ask ourselves at this point is, which of the sounds is at the underlying representation (UR)?

A study of the environments in which the two sounds occur gives us the following distribution:

[k] <
- at word initial position
- at word medial position but never intervocalically
- at word final position

[ɣ] – word medially at intervocalic position.

Given that [k] has more environments in which it occurs, we can argue that it is the basic sound which changes to [ɣ] in between two vowels. [ɣ] whose environment of occurrence is predictable is thus not at the underlying representation. This process can be captured by the rule below:

(18) k --> ɣ / V – V

This rule states: the velar plosive, [k], becomes the velar fricative, [ɣ] in between two vowels.

As for the forms in (17b), they present an alternation between the sounds [g ~ ɣ] . A study of the data demonstrates that [g] occurs word initially and word medially while [ɣ] occurs only intervocalically. One could argue that [ɣ] is the basic sound which changes to [g] before the lateral sound [l] but this argument is invalidated when we consider that [g] is not limited to this environment.It also occurs before the vowel [ɔ] .

On the other hand, if we consider [g] as being in the underlying representation, we can argue that [g] becomes [ɣ] in between two vowels. This solution looks more natural and better since it is similar to the previous process of frication where [k] becomes [ɣ] intervocalically.This leads us to the conclusion that [g] which has more environments in which it occurs is the basic phoneme, thus the rule below:

(19) g → ɣ / v - v

This rule states: the voiced velar plosive, [g] becomes the velar fricative [ɣ] in between two vowels.

It should be noted that this rule does not apply in verbs for Samba Leekɔ does not have any verbs whose root ends in the velar plosive [g] .The two rules can be merged to form a general rule of frication which can be presented below:

(20) Frication rule:

k/g → ɣ / v –v or

$$\begin{bmatrix} +\text{cons} \\ -\text{ant} \\ -\text{son} \\ -\text{cont} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{cont} \end{bmatrix} \Big/ \begin{bmatrix} +\text{syll} \\ -\text{cons} \end{bmatrix} \text{ -- } \begin{bmatrix} +\text{syll} \\ -\text{cons} \end{bmatrix}$$

Prose statement: the plosive sounds [k/g] become the fricative sound [ɣ] in between two vowels.

(21) Sample derivations.

	mə̀ sàk	mə̀ sàɣà	gògl̄	gòɣá
UR	/ mə̀ sàk-ø	mə̀ sàk-à	gòg-l̄	gòg-á /
Frication		↑		↑
k/g- > ɣ/V—V	--	ɣ	--	ɣ
PR	[mə̀ sàk	mə̀ sàɣà	gòglī	gòɣá]

II.1.2.6. VOICING

Voicing refers to the process whereby an unvoiced sound becomes voiced when it is in the environment of a voiced sound or sounds. Consider the following data:

(22)

a. **column 1** **column 2**

náp "song"

kə̀ -náp -jíì - mbà "to sing" mə̀ jíí - náb - à "I have sung"

kə̀ - náp - nàà - mbà "to dance" mə̀ nàà -náb - à "I have danced"

vpfx song v.root v.sfx sm root song Am

b.

kə̀ - pɛ́p - bà "to blow" mə̀ pɛ̀b- à "I have blown"

kə̀ - táp - bà "to tie" mə̀ táb- à "I have tied"

vpfx v.root v.sfx Sm Rt Am

The data in (22a), in the first column present the noun "náp" in isolation, then within the verbs "to sing" and "to dance" where it acts as an object. In the verbs in the second column in (22a), the verbs "to sing" and "to dance" have been conjugated in the present perfect tense. When the perfective aspectual marker, [à], is added to the noun [náp], its final [p] sound changes to [b] to give [nábà].

We notice a similar process in the verbs in (22b) where the verb roots end in a voiceless sound, [p]. When these verbs are conjugated in the present perfect tense, the [p] sound of the verb root changes into [b], to give [pèbà] and [tábà].

At this level, we can propose two possible solutions:

(i) That [b] becomes [p] at word final position and before consonants giving the rule:

$$b \text{ --> } p \;/\; \left\{ \begin{matrix} [\text{ -- \#}] \\ [\text{ -- [+cons]} \end{matrix} \right\}$$

(ii) that [p] becomes [b] at intervocalic position giving the rule:

$$p \text{ --> } b \;/\; V\text{—}V$$

These two solutions aptly predict the data but we can say that the second solution where [p] bcomes [b] in between two vowels looks more advantageous in that the environment of [b] is more predictable. The process captured by this rule is also more natural given that, in many African languages, voiceless consonants have been known to become voiced at intervocalic position.

Besides, considering the first solution with [b] as the basic alternant raises a problem when we look at a form like:

[kànápnààmbà] "to dance"

where [p] is found in between two voiced sounds. It is true that it obeys the rule that [b] becomes [p] before consonants, ([b] --> [p] / -- [+cons]), but this assumption is not phonologically founded in this context because the neighbouring sounds to [p] are voiced sounds. There is therefore no sound with a [-voiced] feature which we can say is responsible for devoicing [b] to [p].

As such, the second solution is the best and the voicing rule can be stated as follows:

(23) Voicing rule:

p --> b / V – V

Formal statement:

$$\begin{bmatrix} +\text{cons} \\ -\text{ant} \\ -\text{cor} \\ -\text{cont} \\ -\text{son} \\ -\text{voice} \end{bmatrix} \quad \text{--> } \begin{bmatrix} +\text{voice} \end{bmatrix} \text{ / } \begin{bmatrix} +\text{syll} \\ -\text{cons} \end{bmatrix} \text{ --- } \begin{bmatrix} +\text{syll} \\ -\text{cons} \end{bmatrix}$$

Prose statement:

The [-voice] plosive, [p], becomes its [+voice] counterpart, [b], in between two vowels.

(24) Sample derivations.

mə̀ nàànábà	kənápnàámbà	mə̀ tábà
UR	/ mə̀ nàà-náp-à	kə̀-náp-nàà-mbà	mə̀ táp-à /
Voicing	:		:
p -> b/ V-V	b	--	b
PR	[mə̀ nàànábà	kənápnàámbà	mə̀ tábà]

II.1.2.7. DEVOICING

We talk of devoicing when a voiced sound loses its [+voice] feature and acquires the feature [-voice] due to the influence of a neighbouring [-voice] sound or sounds. Consider the data below:

(25)

a. jídlá --> /jíd-lá/ "head"
   lídlá --> /líd-lá / "dirt"

b. kətíímbà "to plait"
   kəsūūpbà "to wash"

c. jít-tíímbà "to plait (one' s) head"
   lít-sùùpbà "to wash dirt"

d. jíd-gísíjá "hair on the head"

In the forms in (25a) and (25b) respectively, we have nouns and verbs occurring in isolation. In (25c), these nouns and verbs have been brought together to form phrases. What we notice is that when the nouns [jídlá] and [lídlá] occur in isolation, the noun roots, [jíd-] and [líd-] end in the [+voice] alveolar sound [d]. When they are used in phrases as in (25c), their roots end with the [-voice] alveolar consonant, [t], but also with the [+voice] consonant, [d], as in (25d). We thus have the alternation t ~ d from which we have to determine the basic alternant.

The first solution could be to assume that [t] is the basic phoneme which changes into [d] before voiced consonants, thus from the data above we have [d] occurring before [l] in (25a) and [g] in (25d). This argument can be captured by the rule:

$$t \dashrightarrow d \,/\, \text{--} \begin{bmatrix} +\text{voice} \\ +\text{cons} \end{bmatrix}$$

A second possible solution could be that [d] is the basic phoneme and that it changes into [t] before [-voice] consonants as illustrated in the forms in (25c). This leads us to formulate the rule below:

$$d \dashrightarrow t \,/\, \text{--} \begin{bmatrix} -\text{voice} \\ -+\text{cons} \end{bmatrix}$$

These two solutions correctly predict the data that we have presented in (25). None has an advantage over the other given that the environments in which both sounds occur are predictable.

Since we have to come out with just one sound at the underlying representation, we need additional data on the language to better study this alternation between t ~ d . Consider the forms below:

(26)

kàvɔ́tbà	"to cut"
kàbɛ́tbà	"to imitate"
kàvátbà	"to die"

Our first solution states that [t] becomes [d] before [+voice] consonants. This means that we should not have a form where the [-voice] consonant [t] occurs before [+voice] consonants. When we look at the forms in (26) above, we notice that this rule is invalidated. Instead of having [d] before the [+voice] consonant, [b], we have the [-voice] consonant, [t]. This rule is therefore not general and the environment of [t] is not really predictable since it occurs before voiceless consonants in (25c) and before voiced consonants in (26).

This leaves us with the second solution which states that [d] becomes [t] before [-voice] consonants. From the study of our data, we did not notice any forms that disqualify this rule given that each time we find [d], it occurs before voiced consonants. We shall therefore assume that [d] is the basic phoneme which undergoes devoicing before [-voice] consonants, thus, the rule below:

(27) Devoicing rule

$$d \text{ --> } [t] \; / \; \text{--} \quad \begin{bmatrix} -\text{voice} \\ +\text{cons} \end{bmatrix}$$

Formal statement:

$$\begin{bmatrix} +\text{cons} \\ -\text{ant} \\ +\text{cor} \\ -\text{cont} \\ -\text{son} \\ +\text{voice} \end{bmatrix} \text{ --> } \begin{bmatrix} -\text{voice} \end{bmatrix} / \text{ --- } \begin{bmatrix} +\text{cons} \\ -\text{voice} \end{bmatrix}$$

Prose statement:

The voiced alveolar sound [d] becomes its [-voice] counterpart [t] when it occurs before [-voice] consonants.

(28) Sample derivations.

		jídlá	jíttíímbà	lítsùùpbà
UR	/	jíd-lá	jíd-tíí-mbà	líd-sùùp-bà /
Devoicing			:	:
d- > t/--	[+cons -voice]	---	:	:
			t	:
PR		[jídlá	jíttíímbà	lítsùùpbà]

II.1.2.8 DEGEMINATION

In Samba Leeko, we noticed that some words occur with an identical consonant cluster. This has to do with words whose verb roots end in the sounds [b] and [k].

In the first group of words whose roots end in a final [b], this [b] gets into contact with the initial sound, [b], of the verb suffix thereby giving birth to a [bb] consonant sequence.

Consider the data below:

Pfx	root	suffix		
/ kə̀-	dʒūb -	bà /	--> kə̀dʒūbbà	" to beat"
/kə̀ -	lɛ́b -	bà /	---> kə̀lɛ́bbà	" to buy"
/ kə̀ -	gáb -	bà /	---> kə̀gábbà	" to know"

In the second group of words which have the sound [k] at final position in their verb roots, this final [k] gets into contact with the [k] of the imperative marker which as will be demonstrated later is the discontinuous morpheme [Ǹ...ká]. The union between the final [k] of the verb root and the initial [k] of the imperative tense marker brings about a [kk]sequence. This is illustrated in the data below:

a) Pfx root suffix

/ kə̀ - lāk - bà / ---> " to shout"
/ kə̀ - sɔ́k - bà / ---> " to put / keep"
/ kə̀ - jāk - bà / ---> " to look at"
/ kə̀ - sák - bà / ---> " to seize"

b)

Imp.	Root	Imp Tm.			
ǹ	- làk -	ká	--->	ǹlàkká	" shout" (imperative)
ǹ	- sɔ́k -	ká	--->	ǹsɔ́kká	" put /keep"
ǹ	- jàk -	ká	--->	ǹjàkká	" look at"
ǹ	- sàk -	ká	--->	ǹsàkká	" seize"

Given this doubling of identical consonants, a rule of degemination applies to reduce the two consonants to one. This rule can be stated as below:

Degemination:

[bb] ---> [b]
[kk] ---> [k]

NB. A similar rule is proposed by KOUONANG (1983) and also by NGUM (2004) in her work on the mètáʔ language.

After this part of chapter Two which deals with Phonology, we will move on to the second part which deals with tones and tonological processes.

II. 2. TONOLOGY

Pike (1948:3) defines a tone language as any language "having significant contrastive but relative pitch on each syllable". This means that the pitch of one' s voice either rises or falls depending on the syllable pronounced.

Generally, tone has two functions: the lexical and the grammatical functions but in Samba Leeko, tone assumes only one function, the lexical function. According to Pike (1948:49) "when pitch is lexical, it distinguishes the meaning of words". Thus in Samba Leeko, there are words whose meaning is differentiated only by tones.

(30) Examples.

-kə̀lɛ́bà	" to buy"
kə̀lɛ̀bà	" to give birth"
-bìlá	" country"
bílá	" change"

II.2.1. INVENTORY OF TONES.

Samba Leeko makes use of three level tones namely; the mid tone, [-], the high tone [´], and the low tone [`] . These tones are combined in different ways in different words. At the underlying level, these three tones

do not exist. Only the L and H tones exist and the Mid tone comes about as a result of upstep. As will be demonstrated in chapter Three, some forms are toneless underlyingly.

The examples below exemplify the three level tones found in Samba Leeko:

(31)

a. High tone [´]

[ǹlííká] " eat" [m̀wɔ́pká] " respect"

b. Mid tone [-]

[kəmētbà] " to lick" [kə̀ɲəəmba] " to drink"

c. Low tone [`]

[ǹlùmká] " bite" [m̀pètká] " share"

II.2.2. MORPHOTONOLOGICAL PROCESSES.

Samba Leeko verbs exhibit five tonological processes which are:

-Tone docking
-default Low assignment
-stray erasure
-upstep
-High Tone Spreading (H.TS.)

II.2.2.1 TONE DOCKING

Tone docking refers to the process whereby a floating tone docks onto the preceding vowel following the Universal Association conventions (UAC) of Goldsmith (1976). These conventions require that tones be linked

to tone bearing units (TBU) one to one, from left to right and that association lines do not cross. Consider the data below:

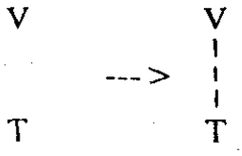
(32) Illustrative data.[3]

[kə̀ - sásì - mbà]	" to scatter" (Infinitive)
[ǹ - sàsì - ká]	" scatter" (Imperative)
[mə̀ sàsì -j-à]	" I have scattered" (Present perfect tense)

Looking at the data above, the first verb root vowel bears a H tone in the form in the infinitive and a L tone in the forms in the imperative and the present perfect tenses. The H tone in the infinitive forms can only be argued to come from the infinitive marker [kə -] whose floating H tone docks onto the first root vowel while the second root vowel gets its L tone by default Low assignment.

The rule of tone docking can be presented as follows:

Tone docking.



Prose statement.

A floating tone docks onto a preceding TBU.

[3] As will be discussed later, the infinitive marker in Samba Leeko is the morpheme [Kə-] which bears two tones: L and H. [Kə-] is linked to the low tone through the UAC while the H tone remains floating. It either docks onto the verb root or is stray erased.

The imperative marker is the discontinuous morpheme Ǹ...Ká with the first part, Ǹ-, coming before the verb root and the second part, -Ká after the verb root.

II.2.2.2. STRAY ERASURE

The rule of stray erasure states that any floating tone that does not link onto a TBU is deleted. Consider the data below:

[kə̀ - kə́tsì -mbà] " to reduce" (Infinitive)
[ŋ̀ -kə́tsì - ká] " reduce" (Imperative)
[mə́ - kə́tsì - j - à] "I have reduced " (Present perfect tense)

In the forms above, the first root vowel bears a H tone all through. A possible argument is that this H tone is underlying, if not we won't be able to explain where the H tone comes from in the forms in the imperative mood and present perfect tense. With this underlying H tone, the floating H tone of the infinitive marker is prevented from docking and is then stray erased. The rule of stray erasure can be formulated as below:
Stray erasure

V

T------ > σ

Prose statement.

A floating tone that does not dock onto a TBU is erased.

III.2.2.3. DEFAULT LOW ASSIGNMENT

This tonological process involves assigning a low tone to any toneless tone bearing unit. It can be presented as below:

V

:

:

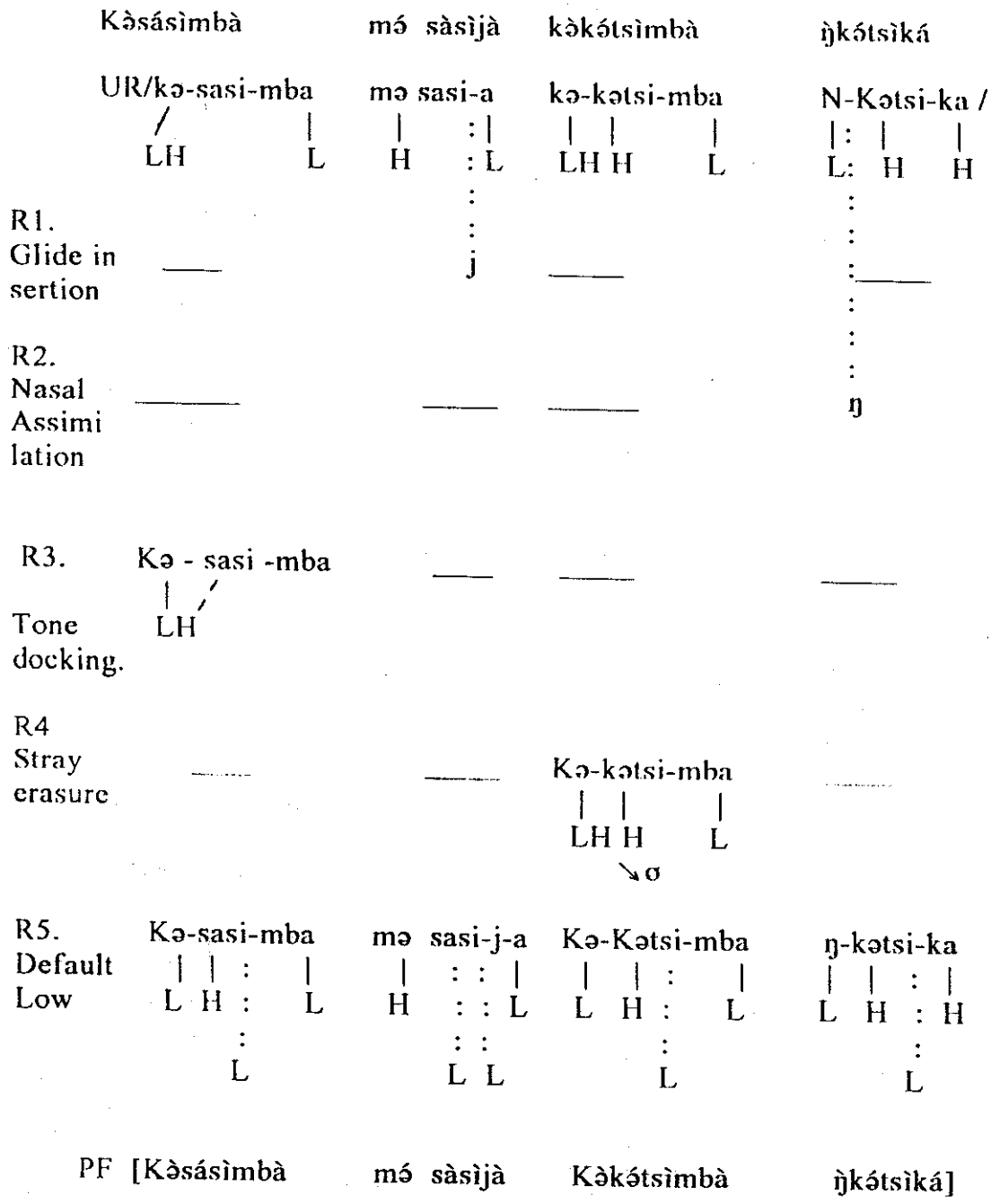
L

Prose statement.

Assign a L tone to any toneless TBU.

The rules of tone docking, stray erasure and default Low assignment are better clarified in the derivations in (33)

(33) Sample derivations.



II.2.2.4. HIGH TONE SPREADING (HTS)

High Tone Spreading is a tonological process whereby a H tone which is already linked to a TBU spreads rightwards to another TBU. In Samba Leeko, there are two processes of High tone spreading:

(1) A HTS process that affects underlyingly linked H tones and
(2) A HTS process that affects floating H tones which dock onto the verb root.

II.2.2.4.1. HIGH TONE SPREADING 1.

This concerns the HTS process that affects underlyingly linked H tones. Let us examine the data below:

(34)

a. INFINITIVE

kè - dáà - mbà	"to go "
kà - líì - mbà	"to eat "
kà - jíì - mbà	"to accept"
kà-(lób)-léè-mbà	"to fish (with a hook)"

b. IMPERATIVE

ǹ- dáá - ká	"go "
ǹ - líí - ká	"eat "
ǹ - jíí - ká	" accept"
ǹ-léé-(lób)-á	"fish (with a hook)"

c. PRESENT CONTINUOUSE TENSE

mɔ́	kɔ́ - dáà - nà	"I am going "
mɔ́	kɔ́ - líì - nà	"I am eating "
mɔ́	kɔ́ - jíì - nà	"I am accepting"
Sm	Am Vroot Am	

The forms in (34a) are verbs in the infinitive. Looking at the verb roots, we notice that they all have two identical vowels, bearing the tones H and L. This gives us a HL tonal melody. In the forms in (34b), the verbs are in the imperative. Instead of the HL tonal melody, the verb roots now bear two H tones. In the (34c) forms conjugated in the present continuous tense, the verb roots again have a HL tonal melody. At this point, we have the alternation HL~HH to deal with.

What provokes this alternation and what is the underlying tonal melody are questions we need to answer.

We can start answering these questions by assuming that underlyingly, these verb roots bear the tones HL. When theses tones occur before a L tone as in (34 a and c), they are maintained.

However, when they occur before a H tone as in (34b), the L tone becomes a H tone giving the tonal melody HH. This means that each time we have a HL sequence occurring before a H tone, the HL sequence must change to HH. This solution has its limits when applied to the data below:

(35) ǹ - ɲísì - ká " fill"
m̀-bésì - ká "finish "
ǹ- désì- ká "measure "

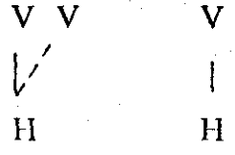
In these verbs conjugated in the imperative, the verb roots bear the tonal sequence HL. Contrary to our expectations, this HL sequence is followed by a H tone but it doesn't change to HH following our rule. This solution is therefore not correct since it does not correctly capture the morphotonological process before us.

A second solution could be to assume that the verb roots in (34) underlyingly have only one tone, a H tone which is linked to the first root vowel while the second root vowel is toneless. In the forms in (34a,c), this second root vowel acquires its L tone by default Low. In those in (34b), however, where this second root vowel bears a H tone, we could argue that a process of HTS occurs before the default Low application. This HTS is tonologically conditioned in that it occurs only when the adjacent tone is a H tone. This explains why HTS will occur for the forms in (34b) but not for the forms in (34a,c) where the adjacent tones are L tones.

To explain why HTS does not occur in the forms in (35), we can assume that these forms have a HL tonal sequence underlyingly in the verb roots. Thus, the H tone is blocked from spreading onto the second root vowel by its underlying L tone.

Given this solution, we can state the following rule of HTS:

(36) High Tone Spreading 1.



Prose statement: A H tone spreads rightwards to a toneless TBU.

Condition: The adjacent tone must be a H tone.

II.2.2.4.2. HIGH TONE SPREADING 2.

The tonological process of HTS 2, affects floating H tones which dock onto the verb root.

This process is presented in the data below:

(37)

a. INFINITIVE

kə̀-lə́ə́-mbà	" to sleep"
kə̀-wúú-mbà	" to plant (a seed)"
kə̀-gúú-mbà	" to sew"
kə̀-lúú-mbà	" to burn"
kə̀-déé-mbà	" to read"

b. IMPERATIVE

ǹ - lə̀ə̀ - ká	" sleep"
m̀ - wùù - ká	"plant"
ŋ̀ - gùù - ká	" sew"
ǹ - lùù - ká	" burn"
ǹ - dèè - ká	" read"
Tm V.root -Tm	

c. PRESENT PRERFECT TENSE

mə́	lə̀ə̀	_____		à	" I have slept"
mə́	wùù	- w -		à	" I have planted"
mə́	gùù	- w -		à	" I have sewn"
mə́	lùù	- w -		à	" I have burned"
mə́	dèè	- l -		à	" I have read"
Sm	V.root	Inserted Am sounds			

(38)

a) INFINITIVE

kə̀ - sásì - mbà " to scatter"

b) IMPERATIVE

ǹ - sàsì - ká " scatter"

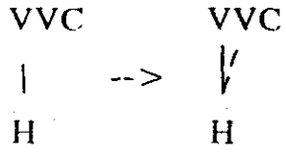
c) PRESENT PERFECT TENSE

mə́ sàsì - j - à " I have scattered."

When we compare the forms in (37), it is evident that the H tones in the verb roots in (37a) are not underlying since the verb roots in (37b,c) have no H tones. These H tones can only come from the floating H tone of the infinitive marker which docks onto the first root vowel. This H tone then spreads to the second root vowel (despite the fact that the adjacent tone is a L tone and not a H tone as is the case of HTS 1).

In (38a), the first root vowel also gets its H tone from the docking of the floating H tone marking the infinitive. This H tone, however, does not spread to the second root vowel as is the case in (37a). To explain why HTS occurs in (37a) but not in (38a), we can pose the condition that HTS occurs only if the two vowels are contiguous. With these explanations, we can state the following rule of HTS.

(39) High Tone Spreading 2.



H H

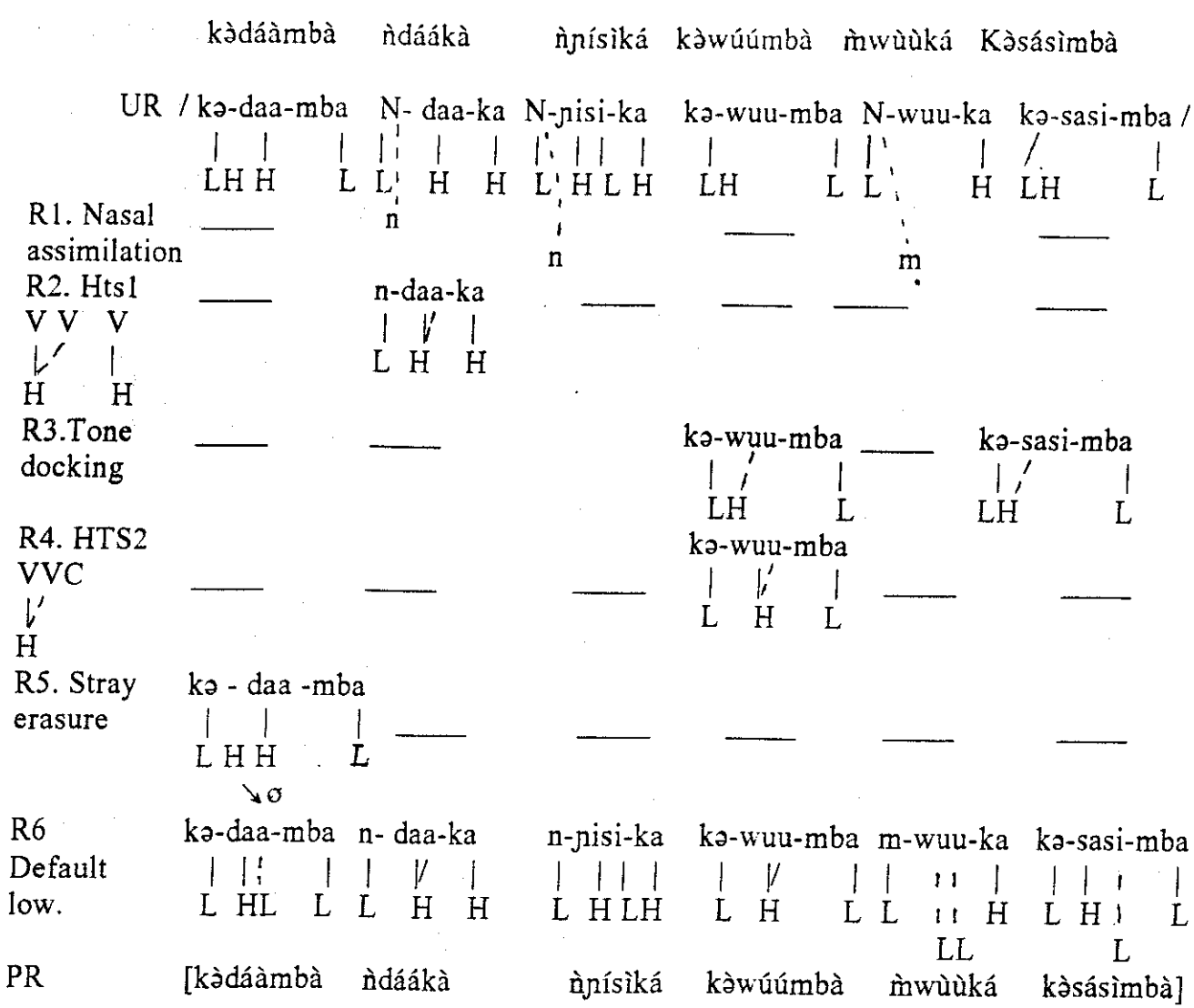
Prose statement: A H tone spreads rightwards to the next vowel.
Condition: The two vowels must be contiguous.

These arguments on HTS1 and HTS 2 are best illustrated in the derivations in (40).

(40)

Sample derivations:

kədáàmbà	" to go"
ǹdáákà	" go"
ǹɲísìkà	" fill"
kəwúúmbà	" to plant"
m̀wùùkà	" plant" (Imperative).
Kəsásìmbà	" to scatter"


kàdáàmbà ǹdáákà ŋ̀ɲísìká kàwúúmbà m̀wùùká Kàsásìmbà
UR / kə-daa-mba N- daa-ka N-ɲisi-ka kə-wuu-mba N-wuu-ka kə-sasi-mba /
LH H L L H H L H L H LH L L H LH L
R1. Nasal assimilation
n n m
R2. Hts1
V V V
H H
n-daa-ka
L H H
R3.Tone docking
kə-wuu-mba kə-sasi-mba
LH L LH L
R4. HTS2 VVC
H
kə-wuu-mba
L H L
R5. Stray erasure
kə - daa -mba
L H H L
ø
R6 Default low.
kə-daa-mba n- daa-ka n-ɲisi-ka kə-wuu-mba m-wuu-ka kə-sasi-mba /
L HL L L H H L H LH L H L L H LL L H L L
PR
[kàdáàmbà ǹdáákà ŋ̀ɲísìká kàwúúmbà m̀wùùká kàsásìmbà]

II.2.2.5. UPSTEP OF LOW TONES.

According to Snider (1999), upstep and downstep are register[1] phenomena. Upstep of Low tones occurs in Samba Leeko when the high register, (h), of a floating high tone, (H), spreads onto a Low tone, (L), thereby delinking its low register feature, (l). To better understand this phenomenon, let's consider the data below:

(41)

a) INFINITIVE	b) IMPERATIVE	(c) PRESENT PERFECT
kə̀ - mɛ̄t - bà " to lick"	m̀ - mɛ̀t - ká	mə́ mɛ̀t -l-à
kə̀ - tɔ̄ʔ - mbà " to tear"	ǹ - tɔ̀ʔ - ká	mə́ tɔ̀ʔ - à
kə̀ - ɲɛ̄n - mbà " to choose"	ǹ - ɲɛ̀n - ká	mə́ ɲɛ̀n - à
kə̀ - lām -bà " to work"	ǹ - làm -ká	mə́ làm - à
kə̀ - jāk - bà " to look at"	ǹ - jàk -ká	mə́ jàɣ - à
Pfx root suff	Tm root Tm	Sm(l) root Am

(42)

a)INFINITIVE	b) IMPERATIVE	(c) PRESENT PERFECT
kə̀- ɲəə̄ - mbà " to drink"	ǹ - ɲə̀ə̀ - ká	mə́ ɲə̀ə̀ - à
kə̀ - məə̄ - mbà " to deny"	m̀ - mə̀ə̀ - ká	mə́ mə̀ə̀ - à
kə̀ - lɔ̄ɔ̄ - mbà " to laugh"	ǹ - lɔ̀ɔ̀ - ká	mə́ lɔ̀ɔ̀ -w - à

[1] A register is defined as the range of the human voice, thus we can have an upper range, a middle range or a lower range. For more information on The Register tier Theory, see the endnotes for this chapter.

(43)

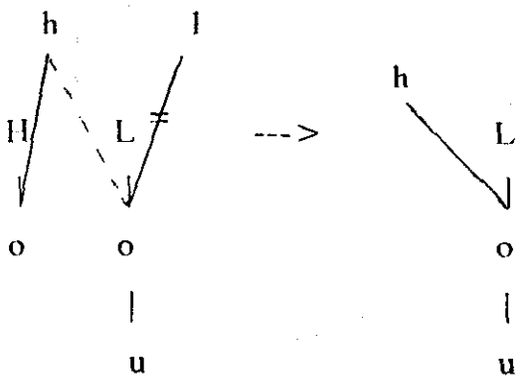
a)INFINITIVE b) IMPERATIVE (c) PRESENT PERFECT

kɔ̀ - kɛ̄ʔsì - mbà " to help" ŋ̀ - kɛ̀ʔsì - ká mɔ́ kɛ̀ʔsì -j - à

Looking at the data in (41), we notice that the verb roots bear a Mid tone in (41a) but Low tones in (41 b,c). The most probable explanation we can have for this alternation is that these verb roots, underlyingly, bear a Low tone as in (41b,c). In (41a), this low tone is affected by the floating H tone of the infinitive marker. When the underlying L tone of the verb root and the floating H tone of the infinitive marker come together, the floating high register feature of the H tone spreads onto the L tone, causing its low register feature to delink thereby giving birth to a mid tone with the features [Lh.]

In (42), where the verb root has two vowels, we find that this Low upstepping process affects both vowels. This means that this process is iterative. The form in (43), however poses a problem in that although the verb root has two vowels, low upstep occurs only on the first root vowel. The iterative nature of this process thus has some constraints which we can say are linked to the positioning of the vowels. Looking at the verb root vowels in (42) and (43), one can argue that just like in HTS2, low upstep applies iteratively only when the two affected vowels are contiguous. This gives us the rule below:

(44) Upstep of L. tone.



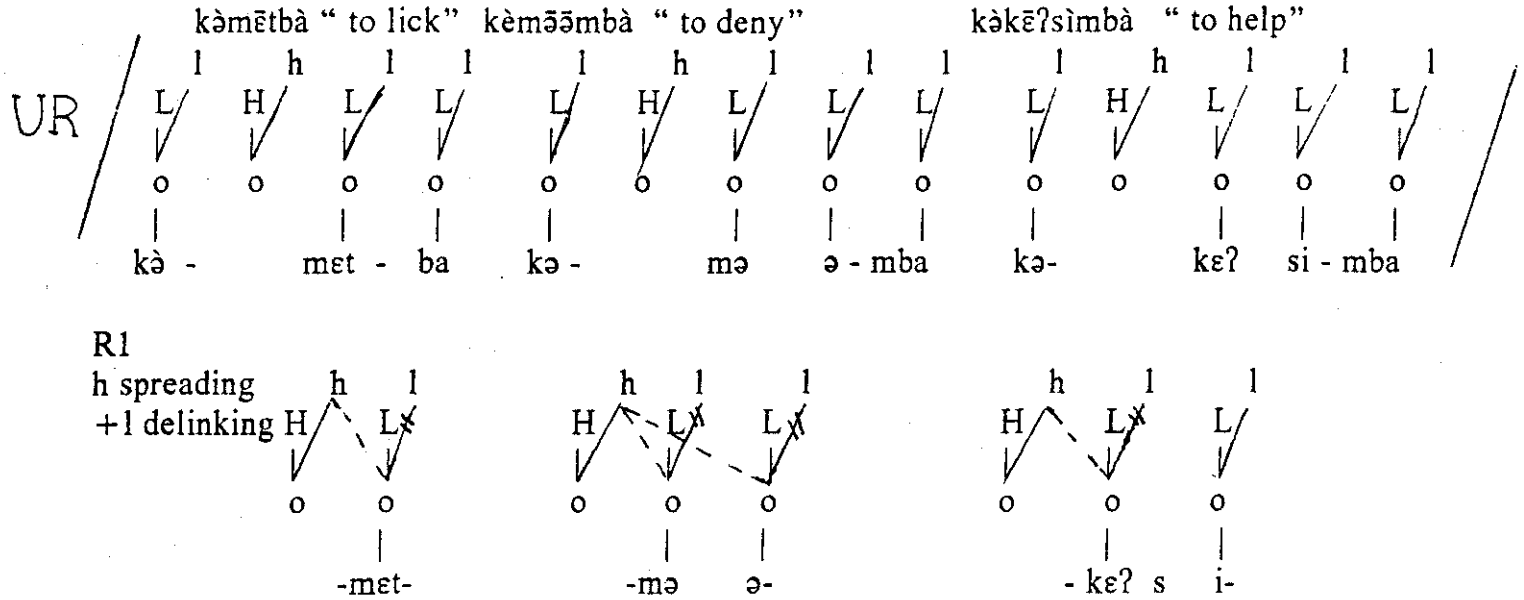
Prose statement:

A floating high register feature spreads rightwards to a L tone delinking its low register feature.

NB: The rule is iterative if the affected tone bearing units are contiguous.

These arguments can be illustrated in the derivation below:

45) Sample derivations.



II.3. CONCLUSION TO CHAPTER 2

In this chapter, we have carried out a review of Samba Leeko phonology and tonology and we have studied the different morphophonological and morphotonological processes that take place in the language. From our study, we have found out that Samba Leeko has nine vowels, all short vowels, and twenty-two consonants.

At the level of morphotonological processes, we have realised that Samba Leeko does not accept unidentical vowel clusters especially across morpheme boundaries. To separate vowel clusters, the language uses a series of processes ranging from vowel deletion to glide and lateral insertion. The language also uses other morphophonological processes like frication, voicing and devoicing which are known to occur in many other Cameroonian languages.

Finally, our study of the tone system has shown that Samba Leeko makes much use of tonological processes like tone docking, HTS, default low assignment, stray erasure and usptep of L tones.

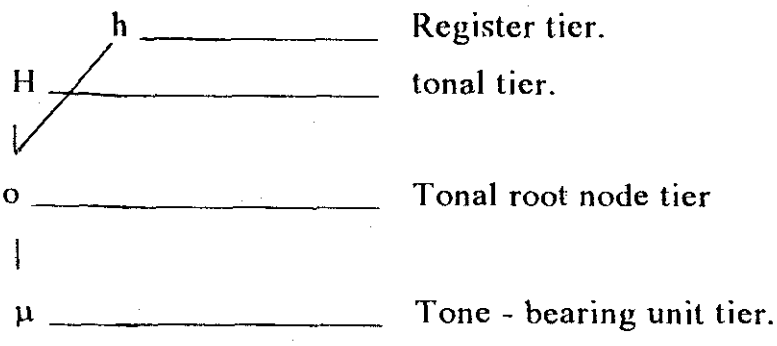
As earlier announced, we will carry out a deeper study on the tonological melodies in Samba Leeko verbs to better understand what its underlying tones are in chapter Three which is entitled the morphological structure of the verb.

ENDNOTES ON CHAPTER TWO

Register Tier Theory (RTT).

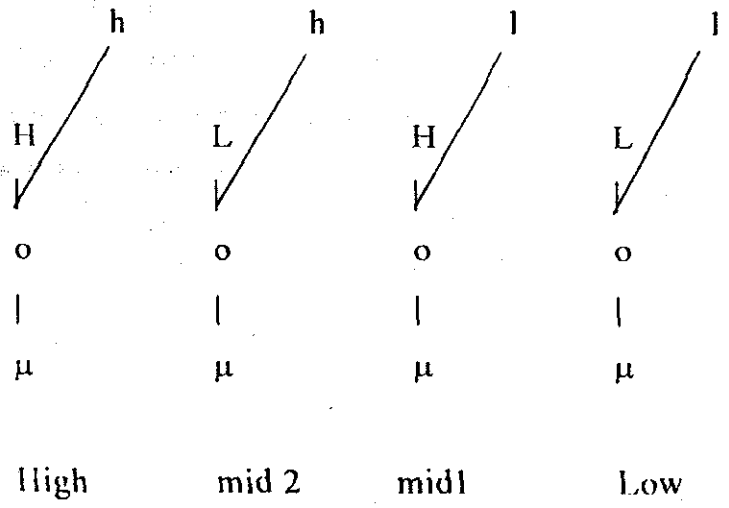
The Register Tier Theory propounded by Snider, (1999), is an application of Autosegmental Phonology to tonal phenomena. This theory provides an overview of the composition of what has been globally referred to as the tonal tier. Snider (1999: 23) proposes the following composition for the tonal tier.

(1)



With the features presented in (1), Snider (1999: 24) fully specifies up to four level tone phonemes: High, Mid 2, Mid 1 and Low (L) which are as below:

(2)



High mid 2 mid1 Low

Given these features, an upstepped low tone is realised as mid1 or mid2.

CHAPTER III

THE MORPHOLOGICAL STRUCTURE OF THE VERB

III.1. INTRODUCTION

The Morphology of a language is defined by Bloomfield (1933: 207) as:

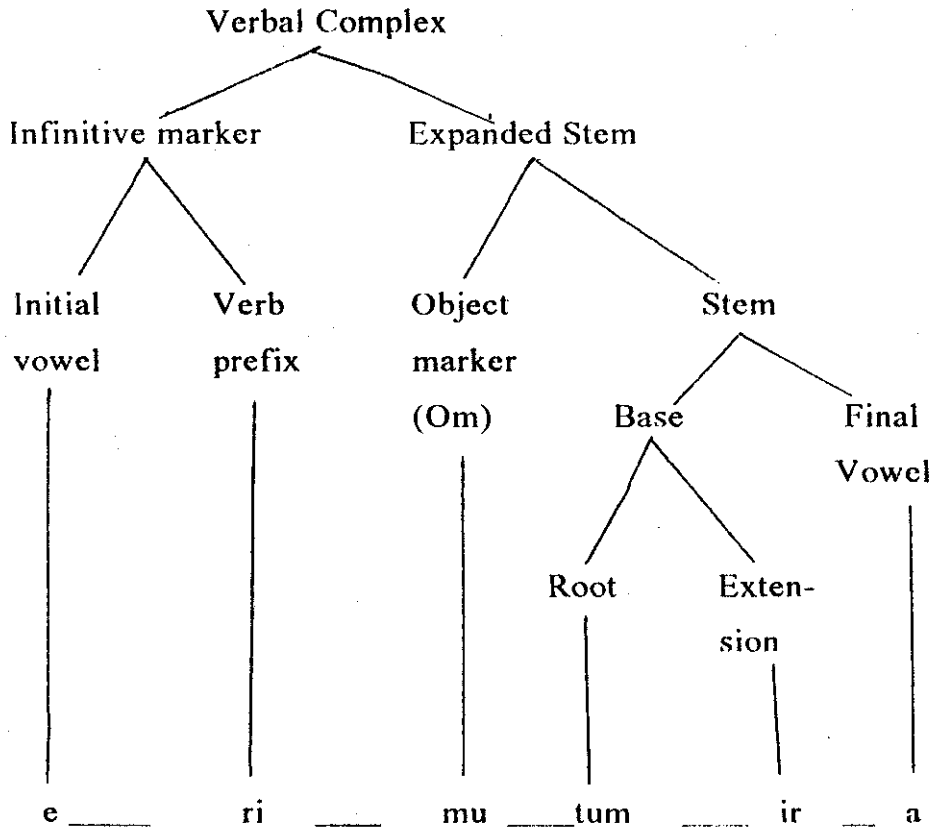
" ... Constructions in which bound forms appear among constituents. By definition, the resultant forms are either bound forms or words, but never phrases. Accordingly, we may say that morphology includes the construction of words and parts of words while syntax includes the construction of phrases."

From the above definition, we can say that morphology is the study of how morphemes combine to form words. For us to study the morphological structure of the verb, we have to study the verb in isolation, free from all flexional markers. As such, we will focus on the verb in its infinitive form. This study will enable us to identify the various morphemes that make up the verb in its infinitive form in Samba Leeko.

Mutaka (1990), working on Kinande[1] , presents the structure of the verb in the infinitive as below:

[1] Kinande is a language spoken in the Democatic Republic of Congo

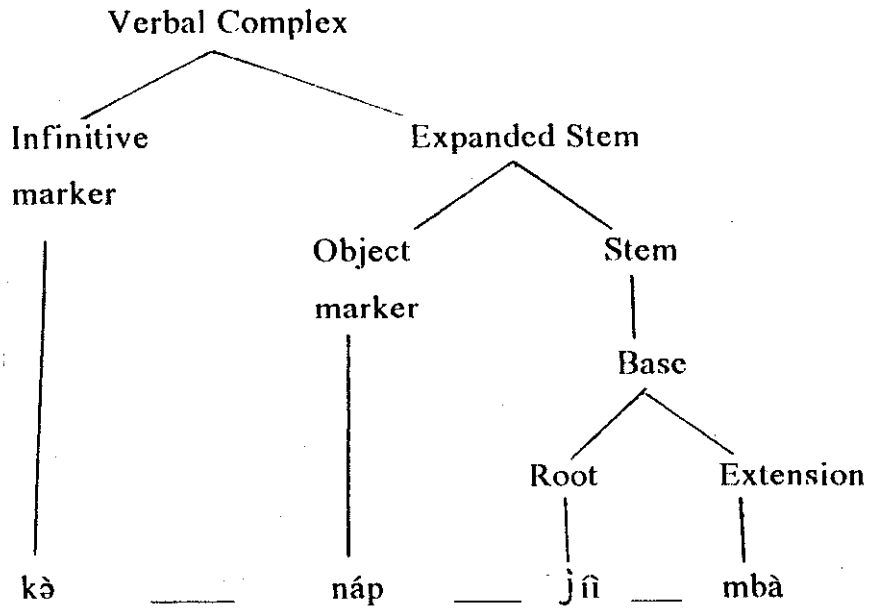
(1) Verbal Structure of Kinande.



crímútumira " to send him".

Looking at the diagram on the verbal structure of Kinande, we realised that Samba Leeko verbs have an almost similar structure except for the fact that they lack the initial vowel and the final vowel which we find in Kinande. This gives us the following presentation for Samba Leeko verbs in the infinitive.

(2) Verbal Structure of Samba Leekɔ.



kə̀nápjíìmbà " to sing (a song)" .

In the following sections, we will examine the various constituents of the verb in the infinitive form in Samba Leekɔ.

III.2. THE INFINITIVE MARKER.

The infinitive form of a verb refers to the non-finite form of that verb that is, the form of the verb that has no flexional markers (Sm, Tm, Am).

The infinitive marker is Samba Leekɔ is the morpheme [kə̀-] which occurs only in verbs and at word initial position. At the surface level, this morpheme bears a L tone but we will argue that underlyingly it has two

tones: L and H. The reason for positing a LH tonal sequence is that we find some tonological processes in the infinitive forms which can only be provoked by the presence of a H tone. The L tone links onto the infinitive marker [kə-] following the Universal Association Conventions of Goldsmith (1976) while the H tone remains floating. This floating H tone either undergoes tone docking onto the verb root or is stray erased. Consider the data below:

(3)

a.	[kè-sásì-mbà]	" to scatter" (infinitive)
	[ǹ-sàsì-ká]	" scatter" (imperative)
	[mə́-sàsì-j-à]	" I have scattered" (present perfect)
b.	[kə̀-ɲɛ̄n-mbà]	" to choose" (infinitive)
	[ǹ- ɲɛ̀n-ká]	" choose" (imperative)
	[mə́- ɲɛ̀n-à]	" I have chosen" (present perfect)

In the forms in (3a), the first verb root vowel bears a H tone in the infinitive form but a L tone in the other forms. This H tone results from the docking of the floating H tone of the infinitive marker onto the verb root, (-sasi-], which as earlier pointed out is toneless underlyingly (see section II.2.2.1). In the other forms, the verb root vowels get their L tones by default Low assignment.

In the forms in (3b), the root vowel in the infinitive form bears a mid tone but bears a L tone in the other forms . This mid tone can only be argued to result from the process of upstep provoked by the floating H tone of the infinitive marker when it comes into contact with the underlying L tone of the verb root. (For more details see section II.2.2.5)

Due to these tonological processes, it is obvious that the infinitive marker in Samba Leeko bears two tones: the L tone which is present at the

surface representation and the H tone which is underlying. Its presence is only felt when it comes into contact with verb roots which are underlyingly toneless or which bear low tones.

A second form of the infinitive is attested in Samba Leeko with its infinitive marker being a zero, (ø), morpheme. This form is not very common. It is mostly used by old people, the younger generation preferring the form with the [kə-] prefix. Following some comparative work we did between Samba Leeko Grassfield and Samba Leeko Benue, we discovered that the form of the infinitive with the zero morpheme should have been the original form given that it is almost similar to the infinitive, in Samba Leeko Benue. However since languages evolve, this form of the infinitive is gradually giving way to the form with the [kə-] prefix in Samba Leeko Grassfield. Below are some examples.

(4)

		Samba Leeko Grassfield	Samba Leeko Benue.	
Inf. marker	Root Suffix			
/ø	- dʒùb - bì / -->	[dʒùbì]	[dʒùbmbìá]	" to beat"
/ø	- lùm - bì / -->	[lùmbì]	[lùmbìá]	" to bite"
/ø	- vàt - bì / -->	[vàtbì]	[vàtmbìá]	" to cut"
/ø	- líì - mbì / -->	[líìmbì]	[líìmbìá]	" to eat"
/ø	- lò? - mbì / -->	[lò?mbì]	[lò?mbìá]	" to kill"
/ø	- pìì - mbì / -->	[pììmbì]	[pììmbìá]	" to give"

Given the data in (4) above, we notice that when the ø morpheme is the infinitive marker, the verb suffix changes from [bà] and [mbà] to [bì] and [mbì] respectively.

At the tonal level, we notice that with the ø morpheme as the infinitive marker, the tones of the verb roots do not undergo any alternations. This is because the ø morpheme carries no tones which can provoke H tone docking and upstep as in the case where the infinitive marker is [kə̀-]. This is illustrated in the examples below:

(5) (A) ø morpheme *infinitive marker* (B) [kə̀] infinitive *marker.*

(a) H tone verb roots.

/ ø - lɛ́b-bì /	/ kè-lɛ́b-bà /	" to buy"
/ ǹ-lɛ́b-ká /	/ ǹ-lɛ́b-ká /	" buy" (imp.)
/ mə́ lɛ́b-à /	/ mə́ lɛ́b-à /	" I have bought"

(b) L tone verb roots.

/ ø - dʒùb -bì /	/ kə̀ - dʒūb - bà /	" to beat"
/ ǹ - dʒùb - kà /	/ ǹ - dʒùb- ká /	" beat" (imp)
/ mə́ dʒùb - à /	/ mə̀ dʒùb - à /	" I have beaten"

(c) Toneless verb roots

/ ø - vèt - bì /	/ kə̀ - vét - bà /	" to cut"
/ m̀ - vèt - ká /	/ m̀ - vèt - ká /	" cut" (imp.)
/ mə́ - vèt - l- à /	/ mə́ vèt - l - à /	" I have cut"

III.3. THE OBJECT MARKER

The object marker in Samba Leeko verbs is always either a noun or a pronoun. It occurs in between the verb prefix and the verb root. It is not used in all verbs since it is used for semantic reasons: either to clarify

doubts in polysemic words or add more meaning to a word. Two objects can be used within a verb and in that case, the two objects both occur in between the verb prefix and the verb root. Below are some examples:

(6)

a) kə - píí - mbà " to give"
Pfx V.root Suff.

kə - mə - án - píí - mbà " to give me something"
Pfx " me" " some V.root suff.
thing"
kə - mə - ŋwànì - píí - mbà " to give me a book."
Pfx " me" " book" - V.root suff.

kə - jíì - mbà " to accept"
Pfx V.root suff.

kə -náp - jíì - mbà "to sing"
Pfx " song" - V.root suff.

kə -líló - jíì - mbà "to steal"
Pfx " thief" - V.root suff.

III.4. THE VERB BASE

The verb base in Samba Leeko is made up of the verb root and a suffix. This suffix is a non-productive verbal extension, also called grammatical suffix. In the following section, we will examine the different verb roots and the verb suffixes in Samba Leeko to see how they are formed and how they combine with each other in the language.

III.4.1. THE VERB ROOT

In Samba Leeko, four different types of syllable structures are attested in the verb roots. These are the -CVV-, -CVC-, -CV.CV-, and -CVC.CV- structures.

III.4. 1.1. THE -CVV- VERB ROOT

Verbs with -CVV- roots are highly attested in Samba Leeko. They are always preceded by the verb prefix and /or object marker and are followed by the grammatical suffix [mbà / mbì]. Below are some examples:

(7)

Pfx	V.root	Suffix.	
Kə̀	- jíì	- mbà	" to accept"
kə̀	- dáà	- mbà	"to go"
kə̀	- mə̄ə̄	- mbà	"to deny"
kə̀	- wúú	- mbà	"to plant" (a seed).
kə̀	- lɔ̄ɔ̄	- mbà	"to laugh"
ø	- líì	- mbì	"to eat"
ø	- dáà	- mbì	" to go"

From the examples in (7), we realise that the -VV- verb root is made up of two identical vowels. One could argue that the examples above present a

-CV- verb root with the -VV- sequence being just one long vowel. This is however not the case for as we pointed out in chapter two, long vowels do not exist in Samba Leeko.

III.4.1.1.1. ITS TONE GROUPS.

The -CVV- verb root has the following surface tonal melodies:

(8)

a) MM.

kà-ɲɔ̄ɔ̄ - mbà " to drink" (cf. ǹɲɔ̀ɔ̀ká " drink")

kà- mɔ̄ɔ̄- mbà " to deny" (cf. ǹmɔ̀ɔ̀ká " deny")

kà- lɔ̄ɔ̄ - mbà " to laugh" (cf. ǹlɔ̀ɔ̀ká " laugh")

b)HH

kà-wúú- mbà " to plant a seed" (cf. ǹwùùká " plant")

kà-gúú- mbà " to sew" (cf. ŋgùùká " sew")

c) HL

kà-dáà- mbà " to go" (cf. ǹdááká " go")

kà-líì- mbà " to eat" (cf. ǹlííká " eat")

Following the data in (8) above, the -CVV- verb root has three different tonal melodies namely: MM, HH and HL. At the underlying level however, all these tonal melodies do not exist. Looking at the forms in (8a), which have mid tones in the infinitive but low tones in the imperative, we can argue that the mid tones are not underlying but come about as a result of upstep of underlying low tones. (For details see section II,2.2.5)

In the forms in (8b), the verb roots have a HH melody in the infinitive forms but a LL melody in the imperative forms. The possible argument here is that these verb roots are underlyingly toneless. In the infinitive forms, the floating H tone of the infinitive marker, [kà-] docks onto the first root vowel following the Universal Association Conventions of Goldsmith (1976), then spreads onto the second root vowel through HTS 2 (see section II.2.2.4.2.).

In the forms in the imperative, the toneless verb root vowels get their low tones by Default Low assignment.

In (8c), where we have a HL tonal melody in the verbs in the infinitive, we can say that these verb roots bear a H tone underlyingly. This H tone links onto the first root vowel and then, the second root vowel gets it low tone by default. In the imperative forms where the two root vowels both bear H tones, we can argue that this is as a result of HTS 1 by which a H tone spreads rightwards to another TBU if the adjacent tone is a H tone.

From these arguments, it is evident that the -CVV- verb root has as underlying tones: H and L while other forms are toneless.

III.4.1.2. THE -CVC- VERB ROOT

Meeussen, (1974: 86), in his studies on Proto Bantu verb roots states that " the most common type is CV(N)C". Thus he calls it the " normal type". This statement is true for Samba Leeko where the -CVC- verb root is the most recurrent. This verb root is preceded by the verb prefix and/or object marker and is followed by either the -CV suffix [bà / bì] or the -NCV suffix [mbà / mbì].

Examples.

(9)

Pfx	V.root	Suffix.	
ø -	léb -	bì	" to buy"
kə̀ -	túm -	bà	" to send"
kə̀ -	tīʔ -	mbà	" to push"
ø -	ɲèn -	mbì	" to choose"

III. 4.1.2.1. ITS TONE GROUPS.

The -CVC- verb root exhibits the following surface tonal melodies:

(10)

(a) M.

kə̀-ɲɛ̄n - mbà	" to choose"	(imp. ǹɲɛ̀nká	" choose")
kə̀-lām - bà	" to work"	(imp. ǹlàmká	" work")
kə̀-dɔ̄? - mbà	" to knock"	(imp. ǹdɔ̀?ká	" knock")

(b) H

kə̀- má? - mbà	" to do"	(imp. m̀mà?ká	" do")
kə̀-lúm - bà	" to bite"	(imp. ǹlùmká	" bite")
kə̀-gáb - bà	" to know"	(imp. ŋ̀gàbká	" know")

(c)

kə̀-sát - bà	" to learn"	(imp. nsátká	" learn")
kə̀-sɔ́k - bà	" to keep"	(imp. ǹsɔ́ḱá	" keep")
kə̀-táp - bà	" to tie"	(imp. ǹtápká	" tie")

The -CVC- verb root appears with two surface tones: H and M. In (10a), the mid tone in the infinitive forms alternates with a low tone in the forms in the imperative. The possible argument to explain this alternation is that, like in the forms in (8a) these forms bear a low tone underlyingly. This low tone is upstepped by the floating H tone of the infinitive marker.

As for the forms with surface H tone, we have segmented them into two parts: (10b) and (10c). In (10b, the verb root in the infinitive form bears a H tone which is absent in the forms in the imperative. As we argued for the -CVV- verb root, the possible explanation is that these verb roots are

toneless underlyingly and they get their low tone by default low assignment. In the infinitive forms, the floating H tone of the infinitive marker docks onto the verb root giving it a H tone. In the forms in (10c), the verb roots bear a H tone both in the infinitive and in the imperative. This H tone must be underlying for the H tone of the imperative marker has not been known to spread to adjacent tone bearing units (TBUs).
The underlying tones for this verb root are therefore H, L and ø (zero).

III.4.1.3. THE -CV.CV- VERB ROOT

This verb root type is not very common in Samba Leeko. Like all the other verb roots, it is preceded by the infinitive marker and / or object marker. It is followed by the -NCV suffix [-mbà] or [mbì].

Examples.

(11)

Pfx	V.root	Suff.	
kə̀	- bésì	- mbà	" to finish"
ø	- ɲísì	- mbì	" to fill"

III.4.1.3.1. ITS TONE GROUPS.

Consider the data below:

(12)

a) kə̀ - sásì - mbà "to scatter" (imp. ǹsàsìká " scatter")
b) kə̀ -ɲísì - mbà " to fill" (imp. ǹɲísìká " fill")
kə̀ - désì - mbà "to measure" (imp. ǹdésìká " measure")
kə̀ -dúsì - mbà "to burn" (imp. ǹdúsìká " burn")
kə̀ - bésì - mbà "to finish" (imp. m̀bésìká " finish")

The - CV.CV- verb root appears with only one surface tonal melody: We have however divided this HL melody into two parts because of the difference in the tonal melody in the imperative forms. In (12a), the HL tonal melody in the infinitive form becomes a LL tonal sequence in the imperative. The explanation to this alternation is that this verb root is toneless underlying. As such, it gets its low tones by default low assignment in the imperative forms while in the infinitive forms, the first root vowel obtains its H tone from the docking of the floating H tone of the infinitive marker. This H tone is prevented from spreading onto the second root vowel because the two verb root vowels are not contiguous ; thus, this vowel gets its low tone by default.

As for the forms in (12b), we find the HL tonal melody both in the infinitive and in the imperative forms. These tones must therefore be underlying since the tone of the imperative marker has no effect on adjacent tones.

The -CV.CV- root thus has two underlying tonal patterns: HL and ø.

III.4.1.4. THE -CVC.CV- VERB ROOT

Just like the -CV.CV- verb root, this verb root is not very common. It is preceded by the verb prefix and/or object marker and is followed by the /-NCV/ suffix [mbà] or [mbì].

Examples.

(13)

Pfx		V. root		Suff.	
kə̀	-	sáŋsì	-	mbà	" to meet"
σ	-	sáŋsì	-	mbì	" to meet"

III.4.1.4.1. ITS TONE GROUPS.

Consider the data in (14) below :

(14)

a. HL

kə - kə́tsì - mbà " to reduce" (imp. ŋ̀kə́tsìká)

kə - sáŋsì - mbà " to meet" (imp. ǹsáŋsìká)

b. ML

kə - kē?sì - mbà " to help" (imp. ŋ̀kè?sìká)

kə - sēptì - mbà " to sell" (imp. ǹsèptìká)

In the forms in (14a), the verb root vowels bear the tones HL both in the infinitive and in the imperative. These tones are therefore underlying tones. In (14b), on the contrary, we have the tonal melody ML in the infinitive alternating with the tonal melody LL in the imperative forms. The only possible explanation which ties in with our former arguments is that these vowels bear low tones underlyingly. When these low tones get into contact with the floating H tone of the infinitive marker, the first Low tone is upstepped to mid while the second is prevented from undergoing upstep because the rule of upstep is iterative only when the affected TBUs are contiguous.

This verb root thus has as underlying tones HL and LL.

A summary of all the underlying tones of verb roots is as below:

H, L, Ø, HL and LL.

III.4.2. GRAMMATICAL SUFFIXES.

Samba Leekɔ verbs have two grammatical suffixes. They are the -CV and -NCV suffixes. These suffixes have no meaning of their own and they add no additional meaning to the verb; that is why they are also called non-productive verbal extensions. They bear Low tones underlyingly and they are absent when verbs are conjugated.

III.4.2.1. THE -CV GRAMMATICAL SUFFIX

The -CV grammatical suffix is made up of the morpheme [-bà] or [-bì].

[-bà] is used with the infinitive marker, [kə̀-] and [-bì] is used with the ø infinitive marker. This suffix is used in specific environments, namely, after the plosives [p,b,t,k] and the nasal [m].

Examples.

(15)

(a) [-bà]

Pfx	V.root	Suffix	
kə̀ -	táp	- bà	" to tie"
kà -	léb	- bà	" to buy"
kə̀ -	sát	- bà	" to learn"
kə̀ -	ǰāk	- bà	" to look at"
kə̀ -	lúm	- bà	" to bite"

(b) [-bì]

ø -	tàp	- bì	" to tie"
ø -	lɛ́b	- bì	" to buy"
ø -	sát	- bì	" to learn"
ø -	j̀àk	- bì	" to look at"
ø -	lù̀m	- bì	" to bite"

III.4.2.2. THE -NCV GRAMMATICAL SUFFIX

The -NCV grammatical suffix is realised as [-mbà] or [-mbì]. It occurs after vowels and after the nasals [n, ŋ] and the glottal stop [ʔ]. [-mbà] is used with the infinitive marker [kə̀-] while [-mbì] is used with the ø infinitive marker.

Examples:

(16)

Pfx	V.root	Suffix.			
kə̀ -	sásì	- mbà	/ ø - sàsì	- m bì	" to scatter"
kə̀ -	dáà	- mbà	/ ø - dáà	- mbì	" to go"
kə̀ -	ɲɛ̄n	- mbà	/ ø - ɲèn	- mbì	" to choose"
kə̀ -	zə́ŋ	- mbà	/ ø - zə̀ŋ	- mbì	" to listen"
kə̀ -	kū?	- mbà	/ ø - kù?	- mbì	" to chew"

III. 5. CONCLUSION

In this chapter, we have studied the morphological structure of the verb and we have noticed that the verb in Samba Leeko has the structure:

Prefix + Om + Root + Ext. (suffixes)

We have seen that the language has two infinitive markers: /kə̀-/ and ø, and these two infinitive markers take specific suffixes, namely: /-bà / and
/ -mbà / for the prefix / kə̀-/ and /-bì / and / -mbì / for the prefix ø. The object marker which does not occur in all verbs is positioned in between the prefix and the verb root.

At the level of verb roots, the language has four verb root types namely
-CVV-, -CVC-, -CV.CV- and -CVC. CV-. These verb roots have many surface tonal melodies but underlyingly only five tonal melodies exist. They are H, L, ø, HL and LL.

Having presented the structure of the verb, we will go on to the next chapter to study the process of verb derivation.

CHAPTER IV
VERB DERIVATION

IV.1. INTRODUCTION

According to Simo (1993; 218), we talk of derivation when " an affix is added to a structure to form a new word" and we will add " with a new meaning". In the case of verb derivation, we have as task to identify the different types of extensions that can be added to the verb base and study the relationships that exist between these morphological units that make up the verb. In this chapter our focus will be on productive verbal extensions.

Essono (2000: 366) defines productive verbal extensions as follows:

> "Les suffixes productifs ne font pas corps avec la base verbale à laquelle ils sont attachés. Le lien entre la base verbale et les extensifs n'est pas nécessaire. Sur l'axe paradigmatique, un suffixe productif peut se substituer à un autre: il peut se détacher du verbe et celui-ci garde sa valeur sémantique initiale."

This means that productive verbal extensions are not necessarily part of the verb in which they are used. They can be deleted or substituted and the verb will still maintain its meaning.

In his article,"Bantu Grammatical reconstructions," Meeussen, (1967 :92), lists out the following suffixes as productive extensions in Proto - Bantu:

Extension	Meaning	Example	Sense
-i-	causative	dim-í	make S.O. cultivate.
-id-	applicative	dim-id	cultivate for.
-ik-	impositive	kuk-ik	put in kneeling position
- ik-	neuter	bon- ik	be in sight.
-am-	stative	kuk - an	be in kneeling position
-an-	reciprocal	bon - an	see each other
-at-	contactive	kuk - at	sit on knees and heels.
- u -	passive	dim - u	be cultivated.
- ud -	transitive reversive	gid - ud	break avoidance
- uk -	intransitive resersive.	dib - uk	become unstopped.

Some additional extensions not mentioned by Meeussen but which are productive in some Bantu languages are the locative and the instrumental (NGUE UM, 2002: 55).

In Samba Leeko, Grassfield derivation is not very productive. The language is not morphologically rich like other Bantu languages such as Bàlòŋ, Bàsàá, Mvùmbɔ̀ and Ewóndò where many productive verbal extensions are attested. (see KONG (2000), BITJAA (1990), NGUE UM (2002), ESSONO (2000).

In Bàlòŋ for example, we have the following extensions:

" -il" for the passive, spontaneous and causative

" -èn" for the reciprocal

(1) Examples: ìlô " to insult"

Causative ---> ìlólîl " to make someone insult."

Reciprocal ---> ìlónên " to insult each other.

Samba Leeko verbs use lexicalised extensions except for the passive extension which is realised as a morpheme. This difference in behaviour between Samba Leeko and other Bantu languages may have been provoked by its contact with grassfield Bantu languages,[1] languages about which Polak (1929 : 96) makes the following statement:

> " Les langues bantoues des grassfields du Cameroun présentent trop d'irregularités par rapport au bantou central. C'est d'ailleurs Greenberg, qui les a intégrées au bantou; avant cela elles étaient considérées comme " semi - bantoues" bien que l' on ait reconnu depuis que leur caractère bantou ne faisait aucun doute."

Following the list of extensions presented by Meeussen in Proto Bantu, we will pick out some extensions and present them so as to illustrate the lexicalised nature of extensions in Samba Leeko. We will present the causative, the reciprocal, the instrumental and the locative. After that we will present the passive which is the only productive extension.

IV.2. LEXICALISED VERBAL EXTENSIONS

IV.2.1. THE CAUSATIVE

Meeussen (1967: 92) defines the causative as "to make someone do something." In Samba Leeko, the causative is expressed by the verb "to make" , [kàmá?mbà]

[1] An interesting study could be to carry out a comparative study between Samba Leeko Grassfield and Samba Leeko Benue in order to see if Samba Leeko Benue has productive verbal extensions or not. This study will either affirm or annul the assumption that Samba Leeko Grassfield may have lost its extensions due to the influence of neighbouring grassfield languages.

This verb conjugated in the simple present tense, realised as [mà?], acts as an auxiliary verb. It accompanies the main verb and the object marker. It occupies phrase initial position when there is no subject and the post-initial position when the main verb has a subject.

(2) Examples.

a. kàdə́?mbà " to hit"

mà? wō ǹdə?ká " to make s.o. hit"

make s.o. hit

fə́ mà? wō ǹdə?ká " we make s.o. hit"

we make s.o. hit

fə́ mà? ū ǹdə?ká " we make him hit"

we make him hit

b. kətúmbà " to send"

mà? wō ǹtùmká " make someone send."

fə́ mà? wō ǹtùmká " we make s.o. send

IV. 2.2. THE RECIPROCAL

We talk of the reciprocal when expressions can be translated as two persons, two groups or two things having an exchange of the same nature. This means that the person or things exert a certain influence on each other.

In Samba Leekɔ, this extension is expressed by the word [sìfə́ɣà] meaning " each other."

(3) Examples.

a. kədə?mbà " to hit"

fə de`? sìfəɣà " we hit each other."

we hit e.o.

b. kətúmbà " to send"

fə tùm sìfəɣà " we send each other."

we send e.o.

IV. 2.3 THE INSTRUMENTAL

This extension implies that the action is done with an instrument of some kind. In most cases, the instrument is an inanimate object. When added to a verb, the instrumental suffix necessitates the introduction of an instrumental noun phrase.

Following this definition, we have the following examples in Samba Leeko where the word [kə], " with" , serves as the instrumental extension.

(4)

a. kəvətbà " to cut"

mə vət kə yéwàá " I cut with a knife"

I cut with knife

b. kədʒūbà " to beat"

mə dʒùb kə tíwàá " I beat with a stick"

I beat with stick

c. kəlíìmbà " to eat"

mə líí kə fəkəbá " I eat with a spoon ."

I eat with spoon

IV.2.4 THE LOCATIVE

The locative suffix establishes a relationship between the action expressed by the verb and the time or place in which the action takes place. In Samba Leeko, the locative has no marker. We can say that it is a zero morpheme or a zero word. Nevertheless, the native speakers understand and interpret sentences produced with the locative extension as having a locative meaning.

(5) Examples.

a. kènápnààmbà " to dance"
mə́ nàà náp ø dìí?lú " I dance in the house".
I dance song locative house

b. kèsáŋsìmbà " to meet"
fə́ sáŋsì ø dìí?lú " we meet in the house".
We meet locative house

IV.3. PRODUCTIVE VERBAL EXTENSIONS

As earlier said, the only productive verbal extension in Samba Leeko Grassfield is the passive.

IV.3.1. THE PASSIVE

The passive presents the subject as acted upon. In this case, it does no action. The passive in Samba Leeko is marked by the morpheme /-si / which is attached to the verb root. The passive thus has the formular below:

Passive = root + / -sì /

6) Examples.

VERB	VERB ROOT	DERIVATIVE	PASSIVE
kədʒūbà " to beat"	-dʒùb-	-sì	dʒùbsì " be beaten"
kəpíímbà " to give"	-píí-	-sì	píísì " be given"
kəlɛ́bà " to buy"	-lɛ́b -	-sì	lɛ́bsì " be bought"
kənápjíímbà " to sing "	-ǰíí-	-sì	jílsì nábà " be sung"

VI.4. CONCLUSION

From the presentation above, we see that extensions in Samba Leeko Grassfield are lexicalised except for the passive extension. Due to this lexicalised nature, the extensions have no interaction with the verb roots which can trigger morphophonological processes as is the case in other languages. Samba Leeko Grassfield is therefore not very rich morphologically as far as productive verbal extensions are concerned.

In the previous chapters we have studied the verb in isolation, paying attention to the different elements that make up the verb but in chapter V, we will study the verb within the verb phrase, thus our chapter V is entitled Verbal Flexion.

CHAPTER FIVE
VERBAL FLEXION

INTRODUCTION

LYONS (1970 : 150) defines flexion as follows :

> «C'est un changement effectué dans la forme du mot pour exprimer sa relation à d' autres mots dans la phrase » .

This means that flexion refers to the structural changes that occur within a word to express the relationship that word has with other words in the sentence. Thus in this chapter, we will examine the types of changes that the verb, nucleus of the verb phrase, undergoes when it is used in relation with other words, for example, words indicating tense, mood, aspect, and voice.

V . TENSE AND MOOD

According to COMRIE (1985 : 9), tense is defined as the « grammaticalised expression of location in time. » This means that tense links the moment of the action, event or state of things expressed by the verb to the moment of speech.

As for mood, DUBOIS et al (1973 : 321) define it as :

> « Une catégorie grammaticale associée en général au verbe et traduisant (1) le type de communication instituée par le locuteur entre lui et son interlocuteur ou (2) l' attitude du sujet parlant à l' égard de ses propres énoncés. »

From this definition, we can say that mood brings out the type of communication the speaker institutes between himself and his listener. This could be, for example, an order or a wish expressed in a subjunctive sentence, an assertion, negation, etc. Thus, mood gives us information on the speaker' s attitude towards his own utterances.

From these definitions we realize that tense permits us to situate the moment of an action or event expressed by a verb while mood enables us to know the attitude of the speaker towards the action going on. Though tense and mood differ in meaning, we notice that their flexional markers are so intimately interrelated that it is difficult to treat them separately. As such, we will treat them together.

In this chapter, we will study in different sections :

-The indicative mood and its tenses,

-The imperative mood,

-The subjunctive mood,

-The conditional mood and,

-Negation.

After this we will study the different aspectual markers in Samba Leeko.

V . 1.1. THE INDICATIVE MOOD AND ITS TENSES.

According to DUBOIS (1973 : 192),

> « on emploie le mode indicatif pour exprimer une action ou un état certain considéré comme tel. »

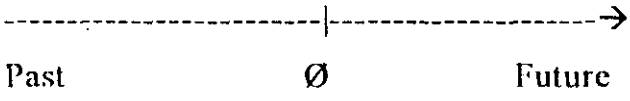
In the same way, BITJAA (1990 : 390) has the following definition of the indicative mood :

> « ... l'indicatif est ainsi le mode de l'assertion [...], du fait certainement réalisé ou réalisable. »

Given these two definitions, we can say that the indicative mood is one that is used in stating facts, that is actions or state of minds that can be realised.

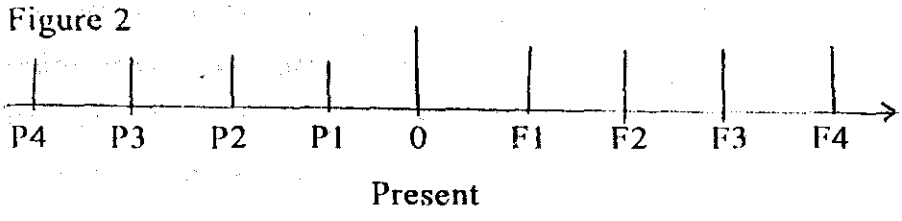
Following COMRIE (1985 : 2), we can explicitly represent the tenses of the indicative mood using a time line. Thus in his illustration, the present moment is represented by a point labelled Ø (zero) on a straight line ; the past is represented conventionally to the left and the future to the right. This gives us the diagramme below :

Figure 1 : Representation of time.



Comrie also talks about «degrees of remoteness » which can help us to carry out more accurate location in time. Thus, on that time line, we should be able to distinguish an action which occurred five minutes ago from one which occurred ten years ago. He therefore proposes further subdivision of the time line to indicate the various times that actions take place, be it in the past or in the future, in relation to the present moment. This gives us the following modification of figure (1).

Figure 2



In Figure 2, P_1 represents the immediate past, P_2 the recent past and P_3, P_4, etc. subsequent past tenses following their degrees of remoteness. F_1 represents the immediate future, F_2, the near future and F_3, F_4, etc. subsequent future tenses following their degrees of remoteness as well.

With this time line, it is much easier to present time divisions in an explicit manner. In the sections below, we will examine the tenses of the indicative mood.

V .1.1.1. THE PRESENT TENSE

COMRIE (1985 : 36) defines the present tense as « coincidence of the time of the situation and the present moment. » This definition ties in with what we observe in Samba Leeko where the present tense brings about a coincidence between the moment of the action or event and the present moment.

The present tense in Samba Leeko does not present any flexional morpheme which we can consider as the tense marker. We will thus assume that the present tense marker in Samba Leeko is a / ø/ morpheme. This / ø/ morpheme occurs at word initial position following the position of these markers in the language. The present tense can therefore be presented as follows.

Present tense = Tm (ø) +Sm + Verb root.

Examples:

kàlébà « to buy »

Tm	Sm	V.root.	
ø	mə́	lɛ́b	« I buy »
ø	ə́n	lɛ́b	« you buy »
ø	(ū)[1]	lɛ́b	« he buys»
ø	fə́	lɛ́b	« we buy »
ø	í	lɛ́b	« you (plural) buy »
ø	ì	lɛ́b	« they buy »

kàsēptìmbà « to sell »

ø	mə́	sèptì	« I sell »
ø	ə́n	sèptì	« you sell »

[1] The third person singular, /ū/ is hardly used in conjugation for the verb phrase maintains its meaning, even in its absence.

ø	(ū)	sèptì	« he sells »
ø	fə́	sèptì	« we sell »
ø	í	sèptì	« you (pl) sell »
ø	ì	sèptì	« they sell »

V .1.1.2. PAST TENSES OF THE INDICATIVE MOOD

Samba Leeko distinguishes four (4) tenses in the past. These are the immediate past 1 (P_1), the immediate past 2 (P_2), the recent past (P_3) and the remote past (P_4) tenses. These tenses are distinguished in terms of days. All the tense markers occur at initial position and the perfective aspectual marker accompanies the verb root.

V . 1.1.2.1. THE IMMEDIATE PAST TENSE 1 (P_1)

This tense is used for actions that occurred just a few minutes before the moment of speech. The time interval between the present moment and the time of speech or action is very short. This tense corresponds to the present perfect tense in English and its tense marker is the zero morpheme / ø/. Its formula is as below :

P_1 = Tm (ø) + Sm + Root + Am

Examples.

kə̀lébà « to buy »

Tm	Sm	V.root.	Am	
ø	mə́	léb	- à	« I have bought »
ø	ə́n	léb	- à	« you have bought »
ø	(ū)	léb	- à	« he has bought»
ø	fə́	léb	- à	« we have bought »
ø	í	léb	-à	« you (pl) have bought »
ø	ì	léb	- à	« they have bought »

kàsɛ̄ptìmbà " to sell"

Tm	Sm	R.Root	Am	
ø	mɔ́	sèptì-j	- à	« I have sold »
ø	ɔ́n	sèptì-j	- à	« you have sold »
ø	(ū)	sèptì-j	- à	« he has sold »
ø	fɔ́	sèptì-j	- à	« we have sold »
ø	í	sèptì-j	- à	« you have sold »
ø	ì	sèptì-j	- à	« they have sold »

NB. Following our rule of glide insertion (see section II.1.2.3.), a palatal glide is inserted in between the final vowel of the verb root and the aspectual marker.

V .1.1.2.2. THE IMMEDIATE PAST TENSE 2 (P_2)

Samba Leekkɔ speakers call this tense the « today past » tense. This means that this past tense is used to refer to past actions or events that occur only on the very day on which the speaker is speaking. The difference between this tense and the immediate past tense 1 is that the time interval between the present moment and the time of speech is longer than that in the immediate past tense 1.

The tense marker for this tense is the morpheme /ká/ which occupies the initial position in the verb phrase. Its formula is as below :

P_2 = ká + Sm + Root + Am

Examples.

kàlébà « to buy »

Tm	Sm	V.root.	Am

ká	mə́	léb	- à	« I bought » (today)
ká	ə́n	léb	- à	« you bought »
ká	(ū)	léb	- à	« he bought»
ká	fə́	léb	- à	« we bought »
ká	í	léb	– à	« you (pl) bought »
ká	ì	léb	- à	« they bought »

kəgúúmbà « to sew »

Tm	Sm	V.root. Am	
ká	mə́	gùù-w - à	« I sewed » (today)
ká	ə́n	gùù-w - à	« you sewed »
ká	(ū)	gùù-w - à	« he sewed»
ká	fə́	gùù-w - à	« we sewed »
ká	í	gùù-w - à	« you (pl) sewed »
ká	ì	gùù-w - à	« they sewed »

NB : [w] in /gùùwà/ comes about as a result of glide insertion.

V .1.1.2.3. THE RECENT PAST TENSE (P_3)

In his thesis, *Le système verbal du ßàsàá*, BITJAA KODY (1990 : 436) defines the recent past tense as follows :

> « Le passé récent est utilisé pour exprimer des actions qui ont eu lieu dans le passé allant d'hier à une durée de temps antérieure que le locuteur considère comme proche d'hier. En termes plus clairs, le locuteur peut utiliser ce temps pour exprimer une action qui a eu lieu il y a un ou deux ans, si dans sa mémoire, il garde encore la fraîcheur de l' évènement ... »

Following this definition, the recent past tense is used for actions that took place in the past from yesterday upwards to a certain period in the past which the speaker considers as close to yesterday or to a period of time which is still fresh in his mind.

Samba Leeko speakers have a similar definition for this past tense as they qualify it the « yesterday » past tense. The verb phrase in this tense has a similar structure to that of the «today » past tense with the only exception that the tense marker here is /ɲí/ and not /ká/ as in the first case. The formula of the recent past tense can be presented as below :

P_2 = ɲí + Sm + Root + Am

Examples

kèlébà		« to buy »	
Tm	Sm	V.root. Am	
ɲí	mɔ́	léb - à	« I bought » (yesterday)
ɲí	ɔ́n	léb - à	« you bought »
ɲí	(ū)	léb - à	« he bought»
ɲí	fɔ́	léb - à	« we bought »
ɲí	í	léb – à	« you (pl) bought »
ɲí	ì	léb - à	« they bought »

kàgúúmbà		« to sew »	
Tm	Sm	V.root. Am	
ɲí	mɔ́	gùù-w - à	« I sewed » (yesterday)
ɲí	ɔ́n	gùù-w - à	« you sewed »
ɲí	(ū)	gùù-w - à	« he sewed»
ɲí	fɔ́	gùù-w - à	« we sewed »
ɲí	í	gùù-w - à	« you (pl) sewed »
ɲí	ì	gùù-w - à	« they sewed »

V .1.1.2.4. THE REMOTE PAST TENSE (P_4)

The remote past tense is used in Samba Leeko to indicate actions that took place very far in the past. Its tense marker is /ɲəəm/ which occurs at initial position in the verb phrase. Its formula is as follows :

P_4 = ɲəəm + Sm + Root + Am

kɛlɛbà « to buy »

Tm	Sm	V.root. Am	
ɲəəm	mə	lɛb - à	« I had bought »
ɲəəm	ən	lɛb - à	« you had bought »
ɲəəm	(ū)	lɛb - à	« he had bought»
ɲəəm	fə	lɛb - à	« we had bought »
ɲəəm	ì	lɛb – à	« you (pl) had bought »
ɲəəm	ì	lɛb - à	« they had bought »

kəgúúmbà « to sew »

Tm	Sm	V.root. Am	
ɲəəm	mə	gùù-w- à	« I had sewn»
ɲəəm	ən	gùù-w - à	« you had sewn »
ɲəəm	(ū)	gùù-w - à	« he had sewn»
ɲəəm	fə	gùù-w - à	« we had sewn »
ɲəəm	ì	gùù-w – à	« you (pl) had sewn »
ɲəəm	ì	gùù-w - à	« they had sewn »

V .1.1.3. FUTURE TENSES OF THE INDICATIVE MOOD

COMRIE (1985 : 36) defines the future tense as the «location of the situation after the present moment. » This means that the future tense

locates an action or event which shall be accomplished after the present moment.

Samba Leeko makes a clear distinction of three tenses in the future which are the imminent future (F_1), the near future (F_2), and the remote future (F_3).

V..1.1.3.1. THE IMMINENT FUTURE (F_1)

The imminent future is used to talk about actions or events that will take place in a very short time. When translated into English, its tense marker / zóɣóm / means «small, a bit, soon.» This means that this tense refers to an action or event that will be accomplished soon or in a small amount of time. Its tense marker appears as an infix in between the first part of the near future (F_2) tense marker and the subject marker. It has the following formula.

$F_1 = F_2$ Tm + zóɣóm + Sm + F_2 Tm + Root + Am

Examples

kàsɔ́kbà « to keep »

F_2Tm	F_1Tm	Sm	F_2Tm	V.root	Am	
dàá	zóɣóm	mɔ́	tí	sɔ́ɣ-	à	« I will soon keep »
dàá	zóɣóm	ɔ́n	tí	sɔ́ɣ-	à	« you will soon keep »
dàá	zóɣóm	(ū)	tí	sɔ́ɣ-	à	« he will soon keep »
dàá	zóɣóm	fɔ́	tí	sɔ́ɣ-	à	« we will soon keep »
dàá	zóɣóm	í	tí	sɔ́ɣ-	à	« you will soon keep »
dàá	zóɣóm	ì	tí	sɔ́ɣ-	à	« they will soon keep »
will	soon		will	keep		

NB : The plosive sound [k] of the verb root changes into the fricative [ɣ] due to the process of frication (see Section II.1.2.5).

kɔ̀dáàmbà « to go »

F_2Tm	F_1Tm	Sm	F_2Tm	V.root Am	
dàá	zóɣóm	mɔ́	tí	dáà-n-à	« I will soon go »
dàá	zóɣóm	ɔ́n	tí	dáà-n-à	« you will soon go »
dàá	zóɣóm	(ū)	tí	dáà-n-à	« he will soon go »
dàá	zóɣóm	ʃɔ́	tí	dáà-n-à	« we will soon go »
dàá	zóɣóm	í	tí	dáà-n-à	« you will soon go »
dàá	zóɣóm	ì	tí	dáà-n-à	« they will soon go »
will	soon		will	go	

kɔ̀lúúmbà « to burn »

F_2Tm	F_1Tm	Sm	F_2Tm	V.root Am	
dàá	zóɣóm	mɔ́	tí	lùù-n-à	« I will soon burn»
dàá	zóɣóm	ɔ́n	tí	lùù-n-à	« you will soon burn »
dàá	zóɣóm	(ū)	tí	lùù-n-à	« he will soon burn »
dàá	zóɣóm	fɔ́	tí	lùù-n-à	« we will soon burn »
dàá	zóɣóm	í	tí	lùù-n-à	« you will soon burn »
dàá	zóɣóm	ì	tí	lùù-n-à	« they will soon burn »
will	soon		will	burn	

Morphophonological process.

In this tense we notice a nasal insertion process in verbs with a –CVV- verb root as demonstrated in the examples above. This is done to avoid the occurrence of three vowels in a sequence, thus a nasal, [n] is inserted in between the verb root vowels and the aspectual marker /-à/. This rule applies only in the future tenses and in verbs conjugated in the

progressive aspect. The rule of nasal insertion can be formulated as follows :

Nasal Insertion rule :

$\emptyset \rightarrow n$ / VV+ -- V

Prose statement :

The alveolar nasal, [n], is inserted in between a –VV- sequence at morpheme boundary and a following vowel.

Condition : The verbs must be conjugated in the future tenses or in the progressive aspect.

V .1.1.3.2. THE NEAR FUTURE (F_2)

This tense is used to refer to actions or events that will take place in the future, within a time interval, starting from «tomorrow » right up to many years so long as the speaker is sure or certain about the time the actions will be accomplished. It should be noted that the speaker's certainty about the time of the action is what determines the use of this tense. The flexional marker for this tense is the discontinuous morpheme / dàá ...tí/ with /dàá-/ occurring at initial position while /-tí/ occurs in between the subject marker and the verb root . It has the following formula :

F_2 = dàá + Sm + tí + Root + Am

The F_2 tense marker is used in the conjugation of verbs in the imminent future and the remote future. Below are some examples which portray the use of this tense.

kàsə́kbà	« to keep »				
F_2Tm	Sm	F_2Tm	V.root	Am	
dàá	mə́	tí	sə́ɣ-	à	« I will keep »
dàá	ə́n	tí	sə́ɣ-	à	« you will keep »
dàá	(ū)	tí	sə́ɣ-	à	« he will keep »
dàá	fə́	tí	sə́ɣ-	à	« we will keep »
dàá	í	tí	sə́ɣ-	à	« you will keep »
dàá	ì	tí	sə́ɣ-	à	« they will keep »
will		will	keep		

kàlúúmbà	« to burn »				
F_2Tm	Sm	F_2Tm	V.root	Am	
dàá	mə́	tí	lùù-n-	à	« I will burn»
dàá	ə́n	tí	lùù-n-	à	« you will burn »
dàá	(ū)	tí	lùù-n-	à	« he will burn »
dàá	fə́	tí	lùù-n-	à	« we will burn »
dàá	í	tí	lùù-n-	à	« you will burn »
dàá	ì	tí	lùù-n-	à	« they will burn »
will	will	burn			

V .1.1.3.3. THE REMOTE FUTURE TENSE (F_3)

BITJAA (1990 : 433) defines the remote future in these terms :

> « Le futur éloigné est employé pour exprimer des actions qui auront lieu dans un futur lointain ou considérées comme tel par le locuteur. En principe, il convient pour des actions qui auront lieu dans plusieurs mois ou plusieurs années ... »

Following Bitjaa's definition, we can say that the remote future is used to talk about actions which will take place very far in the future. In Samba Leeko, the determining factor for the use of this tense is

uncertainty. This means that, the speaker is uncertain about the time when the future action will take place.

This tense is marked by the morpheme /ɲàŋká / which means «far ». Like the immediate future tense marker, this tense marker is infixed in between the first part of the Near Furture tense marker and the subject marker. Its formula is as below :

F3 = dàá + ɲàŋká + Sm + tí + Root + Am

kəlɛ́bà "to buy"

F_2Tm	F_3Tm	Sm	F_2Tm	V.Root	Am	
dàá	ɲàŋká	mɔ́	tí	lɛ́b	- à	« one day, I will buy »
dàá	ɲàŋká	ɔ́n	tí	lɛ́b	- à	« one day, you will buy»
dàá	ɲàŋká	(ū)	tí	lɛ́b	- à	« one day, he will buy »
dàá	ɲàŋká	fɔ́	tí	lɛ́b	- à	« one day, we will buy»
dàá	ɲàŋká	í	tí	lɛ́b	- à	« one day, you will buy »
dàá	ɲàŋká	ì	tí	lɛ́b	- à	« one day, they will buy »

kədáàmbà "to go"

F_2Tm	F_3Tm	Sm	F_2Tm	V.Root	Am	
dàá	ɲàŋká	mɔ́	tí	dáà-n-	à	« one day, I will go »
dàá	ɲàŋká	ɔ́n	tí	dáà-n-	à	« one day, you will go »
dàá	ɲàŋká	(ū)	tí	dáà-n-	à	« one day, he will go »
dàá	ɲàŋká	fɔ́	tí	dáà-n-	à	« one day, we will go »
dàá	ɲàŋká	í	tí	dáà-n-	à	« one day, you will go »
dàá	ɲàŋká	ì	tí	dáà-n-	à	« one day, they will go »

NB: In the future tenses, the subject markers /mɔ́/ and /fɔ́/, that is, first person singular and plural respectively, are often merged with the second part of the F_2 tense marker, /tí/. This merging gives the forms below:

-/mɔ́/ + /tí/ = /má/

-/fɔ́/ + /tí/ = /fá/

These contracted forms are higly used in the language.

Examples: kɔ̀lébà "to buy"

-dàá má léb-à / dàá mɔ́ tí léb-à "I will buy"

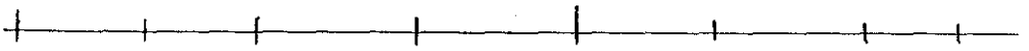
-dàá fá léb-à / dàá fɔ́ tí léb-à "we will buy"

kɔ̀dáàmbà "to go"

-dàá má dáà-n-à / dàá mɔ́ tí dáà-n-à "I will go"

-dàá fá dáà-n-à / dàá fɔ́ tí dáà-n-à "we will go"

After the study of the tenses of the indicative mood, we can draw a time line to present the indicative tenses of Samba Leeko as follows:



P_4	P_3	P_2	P_1	0	F_1	F_2	F_3
Remote past	Recent past	Immediate Past 2	Immediate Past 1	Present	Imminent Future	Near Future	Remote Future

V .1.2. THE IMPERATIVE MOOD

DUBOIS in *Dictionnaire de Linguistique* defines the imperative as:

> " Un mode exprimant un ordre donné à un ou plusieurs interlocuteurs (dans les phrases affirmatives) ou une défense (dans les phrases négatives.)"

This means that the imperative mood expresses a given order to one or many interlocutors in affirmative sentences or a prohibition in negative sentences.

In Samba Leeko, the imperative has only one form for all the persons. It is marked by the discontinuous morpheme /Ǹ ... ká/. /Ǹ/ occurs before the verb root while /ká/ comes after the verb root. Like in many other languages, it is used without the subject marker. Its formula is as follows:

Imperative = Ǹ + Root + ká

-kəsɔ́kbà	"to keep"
ń -sɔ́k - ká	"keep"
Tm V.Root Tm	
-kəjáámbà	"to come"
ǹ - jáá - ká	"come"
-kəbésìmbà	" to finish"
m̀-bésì-ká	"finish"
-kəmētbà	"to lick"
m̀-mèt-ká	"lick"
-kəkátsìmbà	"to reduce"
ŋ̀-kátsì-ká	"reduce"
-kəgétbà	"to have"
ŋ̀-gét-ká	"have"

Morphophonological processes.

A process of nasal assimilation takes place in the imperative mood with the first part of the imperative marker /Ǹ/ assimilating the place of articulation of the following consonant. For more details on this process, see section 11.1.2.1.2.

Another morphophonological process that takes place in the imperative mood is a consonant deletion process. This happens in verbs which occur with an object. Consider the data below:

(1)

Infinitive

Pfx	Om	V.root	Suff.	
kə̀ -	náp -	nə̀à -	mbà	"to dance (a song)"
kə̀ -	náp -	j́íì -	mbà	"to sing (a song)"
kə̀ -	lób -	léɛ̀ -	mbà	"to fish (a hook)"
kə̀ -	án -	sá? -	mbà	"to play (something)"
kə̀ -	lót -	lɔ̀ɔ̀ -	mbà	"to laugh (laughter)"
kə̀ -	gó -	páà -	mbà	"to dress up (dress)"

Imperative

Pfx	V.root	Om	Suff.	
ǹ -	nàà -	náb	- á	"dance (a song)"
ǹ -	j́íí -	náb	- á	"sing (a song)"
ǹ -	léɛ́ -	lób	- á	"fish (with a hook)"
ǹ -	sá? -	án -	á	"play"
ǹ -	lòò -	lót -	l-á	"laugh"
m̀ -	páá -	gó -	w-á	"dress up (dress)"

(2)

Infinitive		*Imperative*
kə̀-dáà-mbà	"to go"	ǹ-dáá-ká "go"
kə̀-mɛ̄t-bà	"to lick"	m̀-mɛ̀t-ká "lick"
kə̀-dʒūb-bà	"to beat"	ǹ-dʒùb-ká "beat"

From the data in (1), we notice that in the imperative form, the verbs bear the first part of the imperative tense marker, /Ǹ-/, which occurs at initial position. The second part of this tense marker, /-ká/, is however

incomplete as we find only the vowel /á/ present. One could be tempted to think that this /á/ is the aspectual marker found in verbs conjugated in the past and future tenses, but this is not true given that the aspectual marker, /à/ bears a low tone while the /á/ of the imperative tense marker that we find here bears a H tone. This /á/ is therefore the vowel of the imperative tense marker /-ká/ which is left behind after [k] deletion. This rule is therefore not phonologically conditioned but morphologically conditioned given that [k] is deleted only when an object marker is used. This explains why in the forms in (2), the imperative tense marker is complete since these verbs do not bear an object marker.

We also find a lateral insertion process in the form /ǹ-lɔ̀ɔ̀-lót-l-á/ and a glide insertion process in the form /m̀-páá-gó-w-á/ in the data in (1). For more details on these morphophonological processes, see Section II.1.2.

V . 3. THE SUBJUNCTIVE MOOD

The subjunctive mood in Samba Leeko is almost similar to the imperative mood. Its tense marker is /ká/ which comes after the verb root. The subjunctive is used with object personal pronouns which occupy phrase initial position. It can be captured by the formula below:

Subjunctive = Sm + Root + ká

Examples

kàsēptìmbà "to sell"

Sm	V.Root	Tm	
má	sèptì	- ká	"let me sell"
(ū)	sèptì	- ká	"let him sell"
fá	sèptì	- ká	"let us sell"
fā	sèptì	- ká	"let them sell"

kəlɛ́bà "to buy"

Sm	V.root Tm	
má	lɛ́b - ká	"let me buy"
(ū)	lɛ́b - ká	"let him buy"
fá	lɛ́b - ká	"let us buy"
fā	lɛ́b - ká	"let them buy"

Just as in the imperative mood, the morphophonological process of consonant deletion also takes place in the subjunctive mood in verbs which occur with an object.

Examples.

Infinitive	*Subjunctive*
Pfx Om Root Suff	Sm Root Om Tm
kə̀ - náp - j̀íì - mbà	má j̀íí - náb -á
"to sing" (a song)	Let me sing
	(ū) j̀íí - náb- á
	Let him sing
	fá j̀íí- náb - á
	Let us sing
	fā- j̀íí - náb -á
	let them sing

V.1.4. THE CONDITIONAL MOOD

The conditional mood in Samba Leeko is marked by the discontinuous morpheme /màká... sìnú/. The first part, /màká-/, occurs at phrase initial position while the second part /-sìnú/ occurs at the end of the conditional clause. As such, it finds itself at phrase medial position when the conditional clause is followed by a result clause. These two morphemes marking the conditional mood can function without each other in

different contexts. Thus the first part, /màká-/ is used alone in negative conditional sentences since the addition of the negative marker causes /-sìnú/ to delete. Although both of them are used in affirmative sentences, the second part /-sìnú/ can be used alone and the sentence will still make sense. The conditional mood can be captured using the formula below:

Affirmative conditional sentences.

COND = (màká) + Sm + Root + sìnú

Negative conditional sentences

COND = màká + Sm + Root + Neg.m.

Examples

(1)

Affirmative form

màká mɔ́ léb sìnú / mɛ́ léb sìnú "if I buy"

Cond Sm buy cond Sm buy cond

Negative form

màká mɔ́ léb sí "if I don't buy ..."

cond. Sm buy Neg. m

(2) Affirmative form

-màká ū ǰáá sìnú, mɔ́ tí dáànà

cond Sm come cond Sm will go

"If he comes, I will go"

-ū ǰáá sìnú, mɔ́ tí dáànà

Sm come cond Sm will go

"If he comes, I will go"

Negative form

-màká ū ɟáá sí, mɔ́ tí dáànà

cond Sm come Neg Sm will go

"If he does not come, I will go"

V .2. NEGATION

As earlier said, mood brings out the type of communication the speaker institutes between himself and his listener or the speaker's attitude towards his own utterance. As such, we consider negation to be a mood on its own because it brings out a type of information which is generally a prohibition. The speaker's attitude here is one of refusal or restriction. In Samba Leekɔ, negation is marked by two flexional markers /sí/ and /ɣá/. Their usage is conditioned by the tenses. /ɣá/ is used for future tenses and /sí/ for the other tenses. They are always located at phrase final position after the verb root. In this section, we will examine negation in the indicative mood, the imperative, subjunctive, and conditional moods.

V .2.1. NEGATION IN THE INDICATIVE MOOD

V .2.1.1. NEGATION IN THE PRESENT TENSE

Negation in the present tense in Samba Leekɔ is marked by the morpheme, /sí/ which is placed at final position. Below are some examples:

kɔ̀tĩ?mbà "to push"

Affirmative form		*Negative form*	
mɔ́ tì?	"I push"	mɔ́ tì? sí	"I don't push"
ɔ́n tì?	"you push"	ɔ́n tì? sí	"you don't push"

(ū) tì?	"he pushes"	(ū) tì? sí	"he doesn't push"
fə́ tì?	"we push"	fə́ tì?sí	"we don't push"
í tì?	"you push"	í tì? sí	"you don't push"
ì tì?	"they push"	ì tì? sí	"they don't push"
Sm V.Root		Sm V.Root Neg m.	

kàdésìmbà "to measure"

Affirmative form		*Negative form*	
mə́ désì	"I measure"	mə́ désìsí	"I don't measure"
ə́n désì	"you measure"	ə́n désìsí	"youdon't measure"
(ū) désì	"he measures"	(ū) désìsí	"he doesn't measure"
fə́ désì	"we measure"	fə́ désìsí	"we don't measure"
í désì	"you measure"	í désìsí	"you don't measure"
ì désì	"they measure"	ì désìsí	"they don't measure"
Sm V.Root		Sm V.Root Neg m.	

V .2.1.2. NEGATION IN PAST TENSES

Like in the present tense, the negative morpheme /sí/ is added at final position to all the past tenses to get their negative form. The only modification is that the addition of /sí/ causes the deletion of the perfective aspectual marker, /à/ which occurs in all past tenses at phrase final position.

V .2.1.2.1. NEGATION IN PAST TENSE 1

Examples

kàsēptìmbà "to sell"

Affirmative form	*Negative form*
Sm V.Root Am	Sm V.Root Neg m.
mə́ sèptì-j- à "I have sold"	mə́ sèptì - sí " I have not sold"
ə́n sèptì-j- à " you have sold"	ə́n sèptì-sí "you have not sold"

(ū) sèptì-j- à "he has sold"	(ū) sèptì-sí " he has not sold"
fə́ sèptì-j- à " we have sold"	fə́ sèptì-sí " we have not sold"
í sèptì-j- à "you have sold"	í sèptì-sí "you have not sold"
ì sèptì-j- à "they have sold"	ì sèptì-sí " they have not sold"

Morphophonological process: Palatal glide insertion in between the final vowel of the verb root and the following aspectual marker in the affirmative form.

Affirmative form *Negative form*

kàlébà "to buy

Sm V.Root. Am	Sm V.Root Neg m.
mə́ léb - à "I have bought"	mə́ léb - sí "I have not bought"
ə́n léb - à "you have bought"	ə́n léb -sí "you have not bought"
(ū) léb - à " he has bought"	(ū léb -sí "he has not bought"
fə́ léb - à " we have bought"	fə́ léb - sí "we have not bought"
í léb – à " you have bought"	í léb -sí "you have not bought"
ì léb - à " they have bought"	ì léb -sí "they have not bought"

V .2.1.2.2. NEGATION IN PAST TENSE 2

Examples

kàlébà "to buy"

Affirmative form *Negative form*

Tm Sm V.root. Am	Tm Sm V.Root Neg m.
ká mə́ léb - à "I bought"	ká mə́ léb -sí "I did not buy"
ká ə́n léb - à "you bought"	ká ə́n léb -sí "you did not buy"
ká (ū) léb - à " he bought"	ká (ū) léb -sí "he did not buy"
ká fə́ léb - à " we bought"	ká fə́ léb -sí "we did not buy"
ká í léb - à " you bought"	ká í léb -sí "you did not buy"
ká ì léb - à " they bought"	ká ì léb -sí "they did not buy"

kàgúúmbà "to sew"

Affirmative form			*Negative form*
Tm Sm V.root. Am			Tm Sm V.Root Neg m.
ká mə́ gùù-w- à		"I sewed"	ká mə́ gùù -sí "I did not sew"
ká ə́n	gùù-w - à	"you sewed"	ká ə́n gùù -sí "you did not sew"
ká (ū)	gùù-w- à	" he sewed"	ká (ū) gùù -sí "he did not sew"
ká fə́	gùù-w - à	" we sewed"	ká fə́ gùù -sí "we did not sew"
ká í	gùù-w - à	" you sewed"	ká í gùù -sí "you did not sew"
ká ì	gùù-w - à	" they sewed"	ká ì gùù -sí "they did not sew"

Morphophonological process: Bilabial glide insertion in between the final vowel of the verb root and the following aspectual marker. For details, see Section II.1.2.3.

V .2.1.2.3. NEGATION IN PAST TENSE 3

Examples: kàlébà " to buy"

Affirmative form			*Negative form*
Tm Sm V.root. Am			Tm Sm V.Root Neg m.
ɲí mə́ léb - à		"I bought (yesterday)"	ɲí mə́ léb-sí "I did not buy"
ɲí ə́n	léb - à	"you bought"	ɲí ə́n léb-sí "you did not buy"
ɲí (ū)	léb - à	" he bought"	ɲí (ū) léb-sí "he did not buy"
ɲí fə́	léb - à	" we bought"	ɲí fə́ léb-sí "we did not buy"
ɲí í	léb – à	" you bought"	ɲí í léb-sí "you did not buy"
ɲí ì	léb - à	" they bought"	ɲí ì léb-sí "they did not buy"

kətápbà "to tie"

Affirmative form	*Negative form*
Tm Sm V.root. Am	Tm Sm V.Root Neg m.
ɲí mɔ́ táb - à "I tied"	ɲí mɔ́ táp - sí "I did not tie"
ɲí ɔ́n táb - a "you tied"	ɲí ɔ́n táp - sí "you did not tie"
ɲí (ū) táb - à " he tied"	ɲí (ū) táp - sí "he did not tie"
ɲí fɔ́ táb - à " we tied"	ɲí fɔ́ táp - sí "we did not tie"
ɲí í táb – à " you tied"	ɲí í táp - sí "you did not tie"
ɲí ì táb - à " they tied"	ɲí ì táp - sí "they did not tie"

Morphophonological process: Voicing

[p] of the verb root in the verb /kətápbà/ undergoes voicing to become [b] in between two vowels in the affirmative form. For details see Section II..2.6.

V .2.1.2.4. NEGATION IN PAST TENSE 4

Examples.

kətúmba "to send"

Affirmative form	*Negative form*
Tm Sm V.root. Am	Tm Sm V.Root Neg m.
ɲɔ̀ɔ́m mɔ́ tùm-à "I had sent"	ɲɔ̀ɔ́m mɔ́ tùm-sí "I had not sent"
ɲɔ̀ɔ́m ɔ́n tùm-à "you had sent"	ɲɔ̀ɔ́m ɔ́n tùm -sí "you had not sent"
ɲɔ̀ɔ́m (ū) tùm-à " he had sent"	ɲɔ̀ɔ́m (ū) tùm -sí "he had not sent"
ɲɔ̀ɔ́m fɔ́ tùm-à " we had sent"	ɲɔ̀ɔ́m fɔ́ tùm -sí "we had not sent"
ɲɔ̀ɔ́m í tùm-à " you had sent"	ɲɔ̀ɔ́m í tùm -sí "you had not sent"
ɲɔ̀ɔ́m ì tùm-à " they had sent"	ɲɔ̀ɔ́m ì tùm -sí "they had not sent"

kòsátbà "to learn"

Affirmative form *Negative form*

Tm Sm V.root. Am	Tm Sm V.Root Neg m.
ɲèóm mó sát-l-à "I had learned"	ɲèóm mó sát-sí "I had not sent"
ɲèóm ón sát-l-à "you had learned"	ɲèóm ón sát-sí "you had not learned"
ɲèóm (ū) sát-l -à " he had learned"	ɲèóm (ū) sát-sí "he had not learned"
ɲèóm fó sát-l -à " we had learned"	ɲèóm fó sát-sí "we had not learned"
ɲèóm í sát-l -à " you had learned"	ɲèóm í sát-sí "you had not learned"
ɲèóm ì sát-l -à " they had learned"	ɲèóm ì sát-sí "they had not learned"

Morphophonological process: Lateral insertion. A lateral sound, [l], is inserted in between [t] and a following vowel at word final position. See Section II.1.2.4.2.

V .2.1.3. NEGATION IN FUTURE TENSES.

In Samba Leeko, negation in the future tenses (F1, F2 and F3) is marked by the morpheme / ɣá / which is placed at phrase final position.

V . 2.1.3.1. NEGATION IN F1 (IMMINENT FUTURE).

Negation in this tense is marked by the morpheme / ɣá / which as earlier said, occurs at phrase final position. The Imminent Future tense marker / zóɣóm / is maintained in between the Near Future (F2) tense marker and the subject marker. The second part of F2 tense marker, / -tí / and the aspectual marker / à / are deleted with the addition of the negative morpheme. Below are some examples:

kəlɛ́bà " to buy"

Affirmative form.

F2Tm	F1 Tm	Sm,	F2 Tm	V.Root Am	
dàá	zóɣóm	mə́	tí	lɛ́b - à	" I will soon buy"
dàá	zóɣóm	ə́n	tí	lɛ́b - à	" You will soon buy"
dàá	zóɣóm	(ū)	tí	lɛ́b - à	" He will soon buy"
dàá	zóɣóm	fə́	tí	lɛ́b - à	" We will soon buy"
dàá	zóɣóm	ì	tí	lɛ́b - à	" You will soon buy"
dàá	zo´ɣóm	ì	tí	lɛ́b - à	" They will soon buy"

Negative form.

F2Tm	F1 Tm	Sm,	V.Root	Neg.m	
dàá	zóɣóm	mə́	lɛ́b -	ɣá	" I will not buy soon "
dàá	zóɣóm	ə́n	lɛ́b -	ɣá	" You will not buy soon "
dàá	zóɣóm	(ū)	lɛ́b -	ɣá	" He will not buy soon "
dàá	zóɣóm	fə́	lɛ́b -	ɣá	" We will not buy soon "
dàá	zóɣóm	ì	lɛ́b -	ɣá	" You will not buy soon "
dàá	zóɣom	ì	lɛ́b -	ɣá	" They will not buy soon "

V .2.1.3.2. NEGATION IN F2. (NEAR FUTURE)

To mark negation in the Near Future, the negative marker, / ɣá /, is added at final position to the affirmative form of the verb. It also causes the deletion of the perfective aspectual marker and the second part of the F2 tense marker, / dàá ....tí /.

Examples.

kətúmbà " to send"

Affirmative form

F2Tm	Sm	F2Tm	V.Root	Am	
dàá	mɔ́	tí	tùm	- à	"I will send"
dàá	ɔ́n	tí	tùm	- à	" You will send"
dàá	(ū)	tí	tùm	- à	" He will send"
dàá	fɔ́	tí	tùm	- à	" we will send"
dàá	í	tí	tùm	- à	"You will send"
dàá	ì	tí	tùm	- à	" They will send"

Negative form

F2Tm	Sm,	V.Root	Neg m.	
dàá	mɔ́	tùm	ɣá	"I will not send"
dàá	ɔ́n	tùm	ɣá	"You will not send"
dàá	(ū)	tùm	ɣá	" He will not send"
dàá	fɔ́	tùm	ɣá	"We will not send"
dàá	í	tùm	ɣá	"You will not send"
dàá	ì	tùm	ɣá	"They will not send"

kɔ̀lúúmbà " to burn"

Affirmative form

F2Tm	Sm	F2Tm	V.Root	Am
dàá	mɔ́	tí	lùù	-n - à
I will burn				
dàá	ɔ́n	tí	lùù	-n - à
You will burn				
dàá	(ū)	tí	lùù	-n - à
He will burn				
dàá	fɔ́	tí	lùù	-n - à
We will burn				
dàá	í	tí	lùù	-n - à
You will burn				
dàá	ì	tí	lùù	-n - à
They will burn				

Negative form.

F2Tm	Sm,	V.Root	Neg m.
dàá	mɔ́	lùù	ɣá
I	will	not	burn
dàá	ɔ́n	lùù	ɣá
You will not burn			
dàá	(ū)	lùù	ɣá
He will not burn			
dàá	fɔ́	lùù	ɣá
We will not burn			
dàá	í	lùù	ɣá
You will not burn			
dàá	ì	lùù	ɣá
They will not burn			

Morphophological process:

Nasal Insertion: ø ---> n / vv– +v

As earlier said, this rule applies only to verbs conjugated in the future tenses and in the progressive aspect.

V.. 2.1.3.3. NEGATION IN F3 (REMOTE FUTURE)

Negation in the Remote Future tense functions in exactly the same way as that in the Near Future. The negative marker, /ɣá / is placed at final position causing the perfective aspectual marker and the second part of the near future tense, (F2), marker to be deleted. The only difference is that the remote future tense marker, / ɲàŋká /, is maintained in between the near future tense marker and the subject marker.

Examples.

kèsēptìmbà " to sell"

Affirmative form						*Negative form.*					
F2Tm	F3Tm	Sm	F2Tm	V.Root	Am	F2Tm	F3Tm	Sm, V.Root		Neg m.	
dàá	ɲànká	mɔ́	tí	sèptì - j - à		dàá	ɲàŋká	mɔ́	sèptì		ɣá
One day, I will sell.						One day, I will not sell.					
dàá	ɲànká	ɔ́n	tí	sèptì - j - à		dàá	ɲàŋká	ɔ́n	sèptì		ɣá
One day, you will sell.						One day, you will not sell.					
dàá	ɲànká	(ū)	tí	sèptì - j - à		dàá	ɲàŋká	(ū)	sèptì		ɣá
One day, he will sell.						One day, he will not sell.					

dàá ɲànká fə́ tí sèptì - j - à	dàá ɲàŋká fə́ sèptì yá
One day, we will sell.	One day, we will not sell.
dàá ɲànká ì tí sèptì - j - a	dàá ɲàŋká ì sèptì yá
One day, you will sell.	One day, you will not sell.
dàá ɲànká ì tí sèptì - j - a	dàá ɲàŋká ì sèptì yá
One day, they will sell.	One day, they will not sell.

Morphophonological process.

Palatal glide insertion in between the final vowel of the verb root, /-septi- / and the following vowel marking aspect. For details see section II.1.2.3.

V . 2.2. NEGATION IN THE IMPERATIVE MOOD

The negative marker in the imperative mood is / sì /. It is placed at phrase final position and it causes the deletion of the second part, /-ká / of the imperative tense marker / Ǹ... ká /. As such, it comes immediately after the verb root.

Examples.

1) *Verbs without an object.*

Affirmative form	*Negative form*
-kàsə́kbà " to keep"	
ǹ - sə́k - ká " keep"	ǹ - sə́k - sí " don't keep"
Tm Root Tm	Tm Root Neg m.

-kàmɔ̄ɔ̄mbà " to deny"

m̀ - màà - ká " deny" m̀ - màà - sí " don't deny"

-kàkátsìmbà " to reduce"

ǹ - kétsì - ká " reduce. ǹ - kétsì - sí " don't reduce"

2) *Verbs with an object.*

Affirmative form *Negative form.*

-kànápjíìmbà " To sing (a song)"

ǹ - jíí - náb - á " sing" ǹ -jíí - sí " don't sing"

Tm Root Om Tm Tm Root Neg m.

-kànápnààmbà " To dance (a song).

ǹ - nàà - náb - á ǹ - nàà - sí " don't dance"

Tm Root Om Tm Tm Root Neg m.

-kàánsá? mbà " to play (something).

ǹ- sá? - án - á " play" ǹ - sá? - sí " don't play"

Tm Root Om Tm Tm Root Neg m.

From these examples, we notice that the negative marker / sí / is always placed after the verb root in verbs in the imperative. That is why in verbs which have an object marker, the object marker is deleted as exemplified above.

V ..2.3. NEGATION IN THE SUBJUNCTIVE MOOD

Negation in the subjunctive mood functions exactly as in the imperative mood. The negaitve marker is / sí /. It occurs at phrase final position causing the deletion of the subjunctive tense marker /ká /. In verbs with an object, the object marker is also deleted so that / sí / can occur immediately after the verb root. The difference between the

imperative mood and the subjunctive mood is that the subjunctive bears a subject marker which is absent in the imperative. Below are some examples:

kòsɛptìmbà " to sell"

Affirmative form

Sm	V.Root	Tm	
má	sèptì	- ká	
	" Let me sell"		
ū	sèptì	- ká	
	" Let him sell"		
fá	sèptì	- ká	
	" Let us sell"		
fā	sèptì	- ká	
	" Let them sell"		

Negative form.

Sm,	V.Root	Neg. m.
má	sèptì	- sí
	Let me not sell"	
ū	sèptì	- sí
	Let him not sell"	
fá	sèptì	- sí
	Let us not sell"	
fā	sèptì	- sí
	Let them not sell"	

kònápjíìmbà " to sing (a song).

Sm	Root	Om	Tm
má	jíí	- náb	- a´
Let	me	sing	
ū	jíí	- náb	- á
Let him sing			
fá	jíí	- náb	- á
Let	us	sing	
fā	jíí	- náb	- á
Let them sing			

Sm	Root	Neg m.
má	jíí	- sí
Let	me	not sing
ū	jíí	- sí
Let	him	not sing
fá	jíí	- sí
Let	us	not sing
fā	jíí	- sí
Let them not sing		

V .2.4. NEGATION IN THE CONDITIONAL MOOD

Negation in the conditional mood is marked by the morpheme /sí / which is used with the first part of the discontinuous morpheme / màká... sìnú / used in marking the conditional mood in affirmative sentences. The negative marker / sí /, occurs at phrase final position. Below are some examples

Affirmative form	*Negative form.*
màká fɔ́ léb sìnú	màká fɔ́ léb sí
cond. Sm buy cond.	cond. Sm buy Neg m.
" If we buy...."	" If we don' t buy..."
màká ū jáá sìnú	màká ū jáá sí
cond. Sm come cond.	cond. Sm come Neg m.
" If he comes...."	" If he doesn' t come..."
màká mɔ́ sèptì sìnú	màká mɔ́ sèptì sí
cond. Sm sell cond.	cond. Sm sell Neg m.
" If I sell...."	" If I don' t sell..."

V .3. ASPECT

COMRIE (1976 : 3) defines aspect in the following terms:

> Aspects are different ways of viewing the internal temporal constituency of a situation." That is, "different ways of conceiving the flow of the process itself."

In other words, aspect refers to the way the actions or states described by a verb are conceived. Comrie makes this definition much more clear by

using an example drawn from the English language which we will also use in our work for better clarity purposes. The two sentences:

(1) John ate (2) John was eating

do not have any tense difference because they are all in the past tense. The difference between them is aspectual. While " John ate" is in the perfective aspect, " John was eating" is in the imperfective aspect.

This example brings out a clear distinction between perfective aspects, that is, those which view a situation as a single whole and imperfective aspects which pay attention to the internal structure of the situation.

Besides these two aspectual approaches, COMRIE, (1976: 41-42), talks about a third type of aspect which he calls "semantic aspectual". These semantic aspects do not bring any morphological changes in the form of the verb. What they add to the verb is more semantic information. As such we will not discuss them in our work since they have no aspectual markers, but are directly contained in the verb. These semantic aspects are the punctual, durative, static, and dynamic aspects.

V .3.1 - THE PERFECTIVE ASPECT

According to COMRIE (1976 : 3), we talk of the perfective aspect when:

> " The whole of the situation is presented as a single unalysable whole, with beginning, middle and end rolled into one; no attempt is made to divide the situation up into the various individual phases that make up the action."

In other words, a verb is said to be conjugated in the perfective aspect when ' the verb presents the totality of the situation referred to without reference to its internal temporal constituency" (COMRIE, 1976 : 16)

In Samba Leeko, the perfective aspect is marked by the morpheme / à / which occurs at phrase final position after the verb root.

Examples.

(A) Past Perfect tenses.

kàtī?mbà " to push"

	Tm	Sm	V.Root	Am	
1)	ɔ	mɔ́	tì? -	à	" I have pushed" ---> Past tense I
2)	ká	mɔ́	tì? -	à	" I pushed" (today). ---> P.2.
3)	ɲí	mɔ́	tì? -	à	" I pushed" (yesterday) ---> P.3.
4)	ɲɔ̀ɔ́m	mɔ́	tì? -	à	" I had pushed" ---> P.4.

(B) *Future perfect tenses.*

1) dàá zóɣóm mɔ́ tí tì? - à " I will soon push (F1)
F2Tm F1Tm Sm F2Tm Root Am

2) dàá mɔ́ tí tì? - à " I will push (F2)
F2Tm Sm F2Tm Root Am

3) dàá ɲàŋká mɔ́ tí tì? - à " One day, I will push"
F2Tm F3Tm Sm F2Tm Root Am

From all these examples, we find that the action described by the verb is considered as a whole. There is no distinction of any internal phases that make up the action, for example, beginning of action, end of action, etc.

V .3.2. THE IMPERFECTIVE ASPECT

COMRIE (1976 : 4) defines the imperfective aspect as follows:

> " the imperfective looks at the situation from inside and as such is crucially concerned with the internal structure of the situation since it can both look backwards towards the start of the situation

and look afterwards to the end of the situation. It is equally appropriate if the situation is one that lasts through all time, without any beginning and without any end."

From this definition, we can say that a verb is said to be in the imperfective aspect when reference is made to the separate phases that make up the situation described by the verb or when the action is still going on.

In Samba Leeko, the imperfective aspectual markers are either lexicalised forms (words) or flexional markers (morphemes). Under the imperfective aspect, we will examine the following aspects:

-The inchoative or inceptive aspect

-The progressive aspect.

-The completive aspect.

-The iterative aspect.

-The habitual aspect.

V .3.2.1. THE INCHOATIVE ASPECT

The inchoative aspect of a verb expresses the beginning of an action or state without paying attention to the following phases as events unfold themselves. In Samba Leeko, the inchoative aspect marker is the morpheme /sótlì /, derived from the verb /kà-sót-bà / " to start". It occurs at phrase medial position in between the subject marker and the verb base (root + suffix).

Examples.

		Sm	Am	V.Base	
kàtĩʔmbà	" to push" --->	má	sótlì	tĩʔmbà	" I start pushing"
kàmɔ̃ɔ̃mbà	" to deny" --->	ū	sótlì	mɔ̀ɔ̀mbà	"He starts denying"
kàlɛ́bà	" to buy" --->	fá	sótlì	lɛ́bà	" We start buying"
kàkátsìmbà	" to reduce"--->	má	sótlì	kátsìmbà	"We start reducing"

V .3.2.2. THE PROGRESSIVE ASPECT

ESSONO, (2002) defines the progressive aspect as follows:

> " Le continuatif ou aspect non-ponctuel exprime le procès en cours de réalisation. Il fait ressortir le déroulement de l'action exprimée par le verbe sans tenir compte ni de son début, ni de sa fin."

In other words, the progressive aspect of a verb expresses actions that continue over a period of time without paying attention neither to the beginning nor to the end.

In Samba Leeko, the progressive aspectual marker is the same for all the tenses. It is the morpheme / kɔ́ / which occurs at phrase medial position in between the subject marker and the verb root. The verb root is followed by the perfective aspectual marker, / à /, which occurs at phrase final position.

V .3.2.2.1 THE PRESENT PROGRESSIVE

The present progressive aspect is formed by adding the progressive aspectual marker / kɔ́ / and the perfective aspectual marker / à / to the verb conjugated in the present tense. It has the formula below:

Sm + Prog Am + Root + Perf.Am

Examples

		Sm	Prog Am	Root	Perf Am	
kàlébà	" to buy"	mɔ́	kɔ́	léb -	à	" I am buying"
kàtúmbà	" to send"	ón	kɔ́	tùm -	à	"You are sending"
kàvɔ́tbà	" to cut"	mɔ́	kɔ́	vàt - l -	à	" I am cutting"
kàjíîmbà	"to accept"	ū	kɔ́	jíî - n -	à	"He is accepting"

Morphophonological processes.

1) Lateral insertion: ø --> l / t - a*#*

A lateral sound is inserted in between the alveolar plosive [t] and a following low vowel [a] at word final position. For more details see section II.1.2.4.2

2) Nasal insertion:ø ---> n / VV+ ----V.

As earlier said this process is limited to verbs conjugated in the future tenses and in the progressive aspect.

V .3.2.2.2. THE PAST PROGRESSIVE

In the past, the past tense markers are added to the present progressive form of the verbs. These tense markers occupy phrase initial position.

Examples

		kəlébà	. " to buy"		
Tm	Sm	Prog Am	V.Root	Perf Am	
ø +	mɔ́	kɔ́	léb -	à	" I have been buying" ---> P1
ká +	mɔ́	kɔ́	léb -	à	" I was buying" (today) ---> P2
ɲí +	mɔ́	kɔ́	léb -	à	" I was buying" (yersterday) --> P3
ɲàɔ́m +	mɔ́	kɔ́	léb -	à	" I had been buying" ---> P4

V .3.2.2.3. THE FUTURE PROGRESSIVE

Like in the past progressive, we add the future tense marker to the present progressive form of the verb to get the future progressive. However only the first part of the F2 (Near future) tense marker / dàá- / is added. The future progressive thus has the following formula:

Future progressive = dàá +Sm + kə +Root + à

Examples.

		F2Tm	Sm	Prog Am	V.Root	Perf. Am
Kəlɛ́bà	" to buy"	dàá	mɔ́	kɔ́	lɛ́b - à	
		I	will	be	buying	
Kəʃíimbà	" to accept"	dàá	mɔ́	kɔ́	ʃíi - n- à	
		I	will	be	accepting	
Kətúmbà	" to send"	dàá	ū	kɔ́	tùm - à	
		He	will	be	sending	
Kəgúúmbà	" to sew"	dàá	fɔ́	kɔ́	gùù -n -à	
		We	will	be	sewing	

V .3.2.3. THE COMPLETIVE ASPECT

In the completive aspect, stress is placed on the fact that the action or event has come to an end. It resembles the perfective aspect in that the action or event described by the verb is considered as having been completed or accomplished. It however differs in the sense that it makes allusion to one of the phases of the process described by the verb which is " the end".

The completive aspect is marked in Samba Leeko by the word / kábɔ̀ / which means " already" This marker is generally contracted by the native speakers to / kɔ́ɔ̀ / so as to facilitate pronunciation. It is situated at phrase initial position where it is followed by the subject marker, the verb root and the perfective aspectual marker, / à /.

Examples.

			Comp.Am	Sm	V.Root	Perf.A.m.
kèsɛ̄ptìmbà	" to sell"	--->	kábɔ̀	mɔ́	sɛ̀ptì	- j -à
			I	have	already	sold
kətúmbà	" to send"	--->	kábɔ̀	ì	tùm	- à
			They	have	already	sent

kàtí?mbà	" to push" --->	kábɔ̀	fɔ́	tî?	- à
		We	have	already	pushed
kàlɛ́bà	" to buy" --->	kábɔ̀	ì	lɛ́b	- à
		They	have	already	bought

V . 3.2.4. THE ITERATIVE ASPECT

The iterative aspect of verbs refers to actions which are done repeatedly. It is marked in Samba Leeko by the reduplicated word, /ɔ̀lúɔ̀lú /, meaning " over and over". This marker occurs at phrase final position, and it is preceded by the subject marker and the verb root. Below are some examples.

Examples.

Sm	V.Root	Iterative.Am.	
mɔ́	túm	ɔ̀lúɔ̀lú	" I send over and over"
	send		
mɔ́	lɛ́b	ɔ̀lúɔ̀lú	" I buy over and over"
	buy		
fɔ́	màà	ɔ̀lúɔ̀lú	" We deny over and over"
	deny		
ì	sɛ̀ptì	ɔ̀lúɔ̀lú	" They send over and over"
	sell.		

V .3.2.5. THE HABITUAL ASPECT

COMRIE, (1976: 27-28) defines the habitual aspect of a verb as

"the successive occurrence of several instances of the given situation... over an extended period of time."

This means that the habitual aspect does not take any tense into consideration since the action is habitually repeated over a long period of time.

In Samba Leeko, the habitual aspectual marker is the discontinuous morpheme / mèé... sáŋkólé? /. /mèé- / has no meaning of its own while /sáŋkólé? /, which is made up of the morphemes /sáŋ / " time" and / kólé? / " all", means " all the time". /mèé / occurs at phrase initial position while /sáŋkólé? / occurs at final position.

Examples.

Habit.Am	Sm	V.Root	Habit.Am.	
mèé	mɔ́	tùm	sáŋkólé?	" I send all the time"
		send		
mèé	ɔ́n	tùm	sáŋkólé?	" you send all the time"
		send		
mèé	ʃɔ́	dʒùb	sáŋkólé?	" We beat all the time"
		beat		
mèé	ʃɔ́	lɛ́b	sáŋkólé?	" We buy all the time"
		buy		

CONCLUSION

At the end of this chapter, we have seen that Samba Leeko has one present tense, four past tenses and three future tenses in the indicative mood and one form for the imperative, subjunctive and conditional moods. Negation is marked by two distinct morphemes depending on the tenses. At the level of aspect, we find both perfective and imperfective aspectual markers. It should be noted that we have not treated all aspectual markers in our work for, as earlier stated, the semantic aspectual markers have not been treated since they do not have any flexional markers but simply add additional meaning to verbs.

GENERAL CONCLUSION

In our work, we set out to study the way verbs are built up in Samba Leeko and how they function, be it in isolation or in the verb phrase. We used the generative model so as to best explain the surface phonological and tonological alternations attested in the language. Thus in our anlyses, we found out that Samba Leeko makes use of many mophophonological and morphotonological processes.

These are:

- Nasal Assimilation,
-Vowel Deletion
-Glide Insertion,
-Lateral Insertion
-Frication
-Voicing
-Devoicing
-Degemination
-Nasal Insertion
-Tone Docking
-Default low
-Stray Erasure
-Upstep
-High tone Spreading.

We notice that Samba Leeko verbs have a very simple structure made up of Prefix + OM + Base. However, some verbs occur without an object marker (OM).

At the level of verb derivation, we realized that Samba Leeko Grassfield is not very rich since only one productive verbal extension (the passive) is attested. As for verbal flexion, we discovered that the verb in

Samba Leeko just as in other languages takes on markers denoting tense, aspect, and mood.

One interesting study as we earlier noted would be to carry out a comparative study between Samba Leeko Grassfield and Samba Leeko Benue although they still share much in common (for example verb roots and some nouns.) This will greatly help in setting up a unique writing system for the Samba Leeko language as a whole. It will also be a stepping stone to the standardization of the language.

We hope that this work be of much help to linguists who might want to work on Samba Leeko. We cannot claim that the work is perfect, as such, its shortcomings can be used as bases for further linguistic research.

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APPENDIX

This section presents the data used in the work.

WORD	GLOSS	WORD	GLOSS
kàlíìmbà/ líímbì	to eat	kàdʒūbà	to beat
kàgámbà gámbì	to talk	kàlɔ̄ʔmbà	to kill
kàɲəəmba /ɲəàmbì	to drink	kàkɔ́ʔmbà	to catch
kànápnààmbà/	to dance	kàwɔ̄pbà	to break
nápnàámbì	(a song)	kàwúúmbà	to plant
kànápjíìmbà/ to sing		kàmɔ̄ɔ̄mbà	to deny
nàpjíìmbì	(a song)	kàkúmbà	to be
kàlākbà / làkbì	to shout	kàgétbà	to have
kàlébà lébì	to buy	kàlāmbà	to work
kàpəəmbà/ pàəmbì	to cry	kèpētbà	to share
kàlɔ̄ɔ̄mbà / lɔ̀ɔmbì	to laugh	kàmáʔmbà	to do / make
kàgóʔmbà/ góʔmbì	to cook	kàlúmbà	to bite
kàgábà / gàbì	to know	kàdɔ̄ʔmbà	to knock
kàtīʔmbà /tìʔmbì	to push	kàdáàmbà	to go.
kàkátsìmbà /kátsìmbì	to reduce	kàjáámbà	to come
kèsásìmbà /sàsìmbì	to scatter	kà(ŋwànì)déémbà	to read (a book)
kèsáŋsìmbà /sáŋsìmbì	to meet	kàɲēmbà	to walk
kàzáŋ mbà / zàŋmbì	to listen	kàtápbà	to tie
kàɲémbà / ɲèmbì	to walk	kàwètvátbà	to drown
kànɔ́knúúmbà	to run	kàgúúmbà	to sew
kàdúsìmbà	to burn	kàɲísìmbà	to fill
kàwɔ́pbà	to respect	kàbésìmbà	to finish

kəmētbà	to lick	kədésìmbà	to measure
kətɔ̄ɔ̄mbà	to swallow	kətɔ̄ʔmbà	to tear
kəkūʔmbà	to chew	kəŋēnmbà	to choose
kəzáʔmbà	to throw away	kəŋwánbà	to wait
kəpíímbà	to give	kətɔ̄ɔ̄mbà	to sweep
kəsɔ́kbà	to put /keep	kəŋūnmbà	to fry
kəánsáʔmbà	to play	kəkɛ̄ʔsìmbà	to help
kəjākbà	to look at	kəsátbà	to learn
kəvɔ́tbà	to cut	kəlúúmbà	to burn
kətúmbà	to send	kəbīmbà	to rot
kəlóbléèmbà	to fish with a hook	kəláámbà	to throw
kəánlámbà	to cultivate	kətíímbà	to plait (hair)
kəsūūpbà	to wash		
gbísìjá	chin	kùkíìnù	hen
sí /ɣá	negative marker (not)	dʒóɣɔ̄m	little
kpèndèé	plantain	túŋá	ear
gówá	rope	ŋwànà	rain
gónúwá	trap	fíkɔ́bá	spoon
kèèlá	pot	fəəmá	measle
méélá	tongue	dùváànù	cock
gààlá	chief, neck	tɔglɔ̀ɣá	worm
wáálá	groundnut	zìílá	year
vɔ̀m	breast	jéwàá	knife
bōɔ̄ná	wine	jídlá	head
dɔ́ɔ́ná	elephant	lídlá	dirt
kúb	ten	bèjá	money
táàlá	parrot	díbá	fish
gɔ̀ɣá	animal	kpəlɔ̀ɣá	ladder

kpɔ̀ntìjá	mortar	kpɔ̀ntìjá	mortar
gbɔ̀sìjá	forehead	gbáɣá	chair
gwájìn	lion	jílá	two
gwànáá	traditional head		