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THE PHONOLOGY OF Bifaŋ

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE POSTGRADUATE DIPLOMA <<MAÎTRISE>> IN LINGUISTICS

BY

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DEDICATION

Dedicated to

My beloved parents,

Mr Abre David Kudi

and

Mrs Yibiri Margaret Abre

For their unceasing love and care.

ACKNOWLEGEMENT

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LIST OF ABBREVIATIONS AND SYMBOLS

ALCAM	:	Atlas Linguistic du Cameroun
GACL	:	General Alphabet of Cameroonian Languages
SIL	:	Summer Institute of Linguistics
GLOSS	:	Glossary
I.P.A	:	International Phonetic Alphabet
TBU	:	Tone Bearing Unit
C	:	Consonant
V	:	Vowel
V:	:	Long Vowel
VL	:	Voiceless
VD	:	Voiced
H (ˊ)	:	High Tone
L (ˋ)	:	Low Tone
HL /ˆ	:	Falling Tone
LH /ˇ	:	Rising Tone
∅	:	Zero
/	:	Context or environment
→	:	Becomes
/ /	:	Phonemic Transcription
[ ]	:	Phonetic Transcription
#	:	Word boundary
# –	:	Word initial position
–#	:	Word Final position
Pt	:	Past Tense Marker
Pr	:	Present Tense Marker (progressive marker)
Ft	:	Future Tense Marker
Pl	:	Plural Marker
V_1	:	First Vowel
1^{st} sg	:	First person singular
2^{nd} pl	:	Second person plural

TABLE OF CONTENT

CHAPTER ONE

GENERAL INTRODUCTION

This chapter introduces the work by stating its objectives, the motivation of the choice of the topic, the organization of the work, the Befang people and their language, the review of literature, and the methodology used in the study.

1.1 – OBJECTIVE OF WORK

The objectives of this work are as follows:

To describe the phonology of Befang, with the intention of establishing an alphabet and a viable writing system for the language.

We also intend to move this language from a spoken to a written form, so as to give the people the opportunity to be able to preserve their culture in written material, since nothing has been written on the language.

The fact that a good number of strangers live in Befang and then use pidgin English and other languages means that the native speakers themselves would soon neglect and even forget their own language. This will mean immediate extinction of the language. As such, we have chosen to create the awareness that their language can be worth writing.

This work will also contribute to the study of Befang as one of the Cameroonian languages. The establishment of a writing system, would also contribute to the development of the language and to the literacy of the native speakers.

1.2 – MOTIVATION

Our choice of this language was inspired by the desire to transform all African languages from their oral to written forms. Another factor which motivated our choice of the topic was the fact that, in the course of our research, we discovered a data of about 250 words written in the language by a native

speaker of Befang, using the English Alphabet. This data inspired us to continue the work on the language, using scientific perspectives to come out with the pertinent sounds and a writing system of the language.

1.3 – ORGANIZATION OF WORK

This work consists of six chapters. Chapter one which is the introductory chapter consists of the general introduction, the objective of the study, the motivation of the choice of topic, the Befang people and their language, the location of Befang, the review of literature and the methodology used in data analysis.

Chapter two deals with the vowels in Befang, with the purpose of establishing the phonemic sounds in the language.

Chapter three treats the consonant sounds in Befang with the aim of determining the pertinent sounds in the language

Chapter four presents the syllabic and word structure existing in the Befang language and the distribution of phonemes in various positions of the syllable as well as problems encountered during the interpretation of the data.

Chapter five deals with tones in Befang, establishing tonemes and examining the tonal processes in Befang.

Chapter six proposes an elementary alphabet and Orthography for the language. This section is immediately followed by a presentation of the general conclusion where findings and recommendations for future research are presented.

1.4 – THE LOCATION OF BEFANG

In this section, we will be examining the geographical, historical and Socio-economic situation of Befang, as well as the linguistic classification of the language.

1.4.1 – Geographical Location

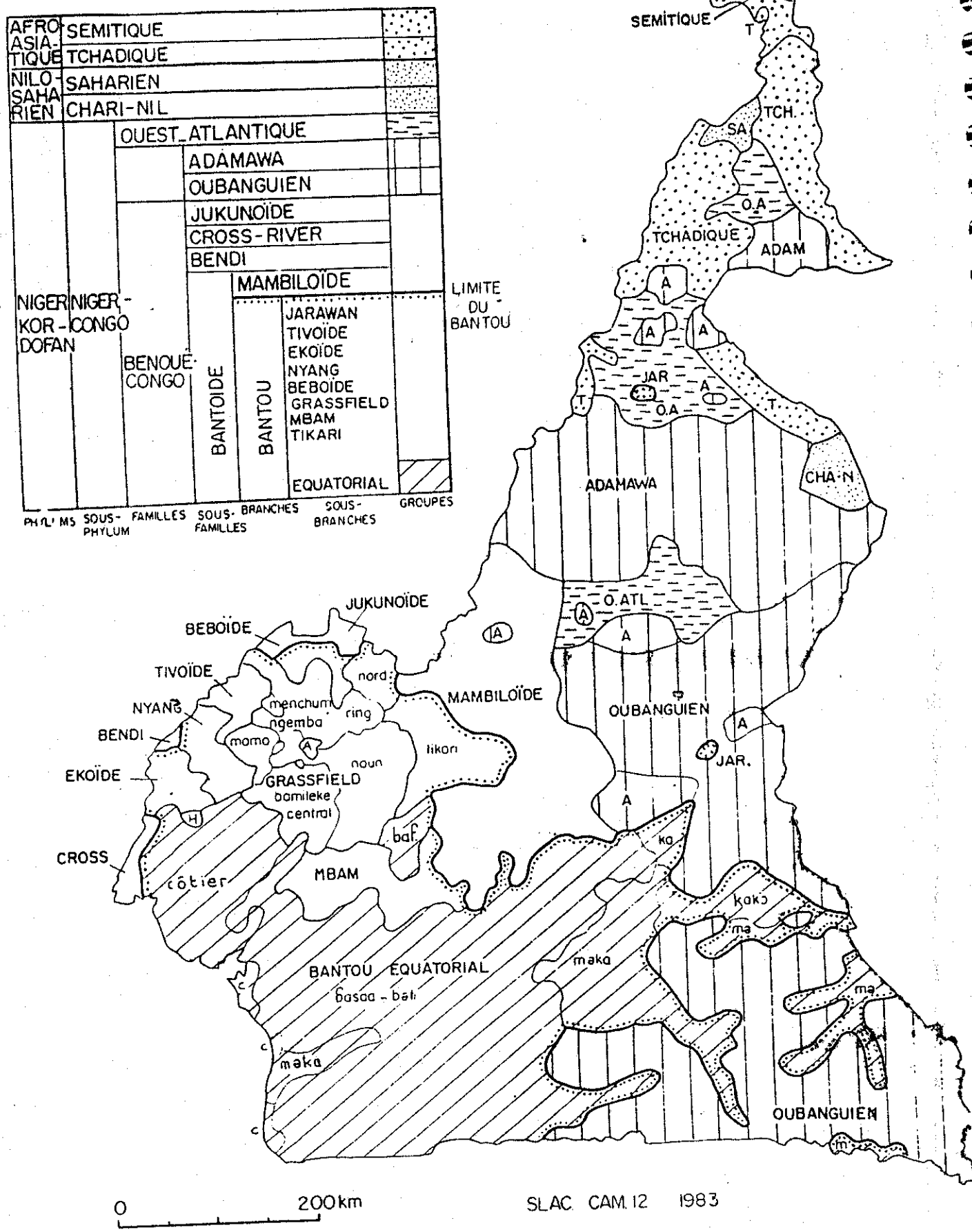
Befang is the name used for the language, the ethnic group and the village. It is one of the six villages that make up the Beba-Befang clan. This clan is one of the two clans that make up the Menchum valley Sub-Division. This Sub-Division is located in the valley between Wum and Bafut Sub-Division of the North West Province of the Republic of Cameroon.

This clan has a population of about 15.000 inhabitants. It lies between latitude 6°10' and 6°31' North and Longitude 9°10' and 10°20' East (Ihims (1994:2).

The Beba-Befang clan is bounded to the North by Wum and Bu, to the east by the Bafut Sub-Division in Mezam and Momo Division, to the south by the Esimbi clan. The area has a tropical climate of high temperatures, heavy rains and a high level of atmospheric humidity. The soil is fertile and this has favoured the growth of tropical forests, large trees and palm trees. The main occupation of the Befang people is palm oil production. This explains why their neighbours mentioned above call Menchum valley the "Mbanga area" and the people are called "mbanga people".

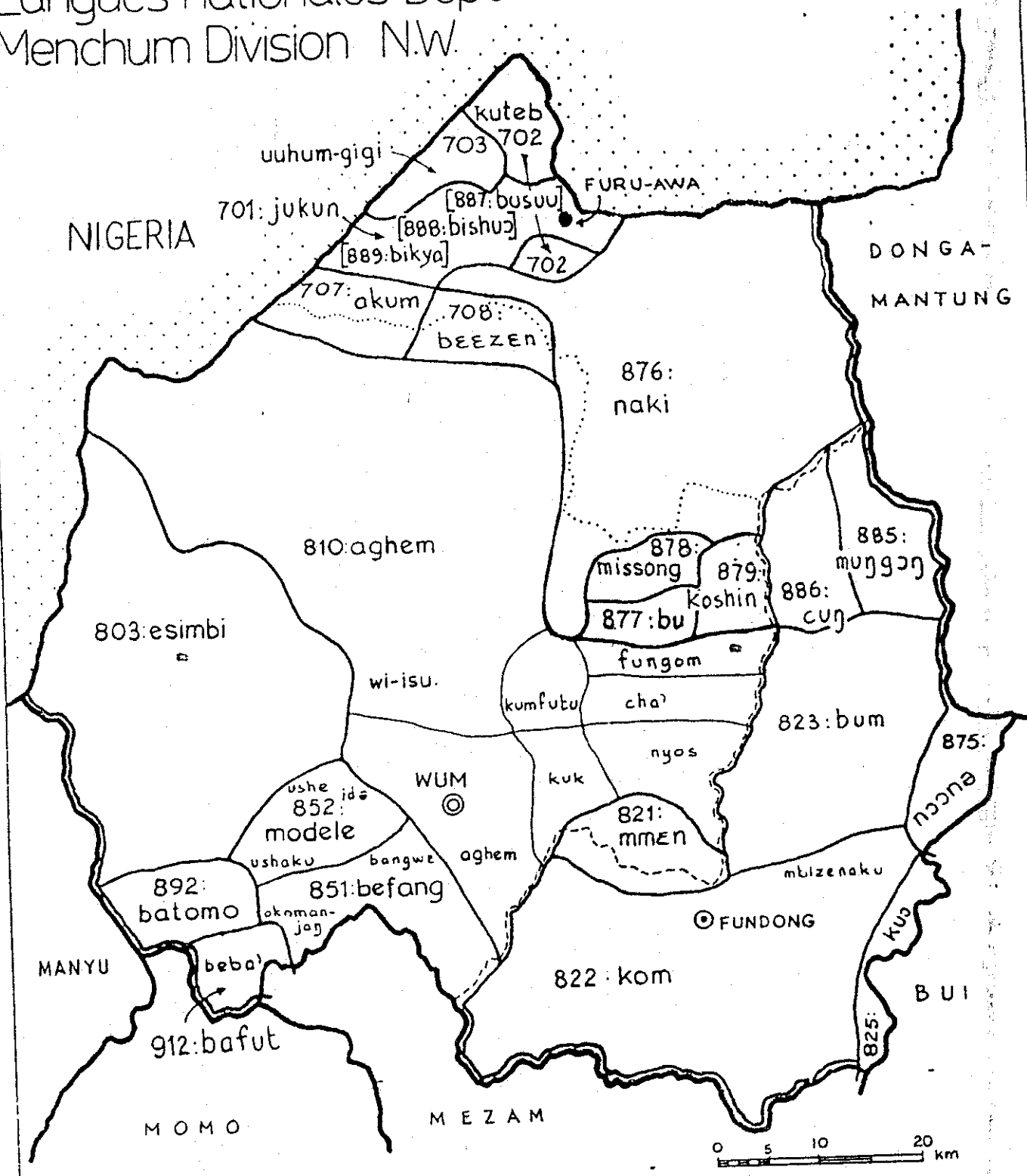
Map 1, below on page 4, shows the families and linguistic groups in Cameroon. Map 2 on page 5, presents Befang as one of the national languages of Menchum. Map 3, on page 6 shows the Befang language in the midst of neighbouring languages of the North West Province.

MAP 1
FAMILLES ET GROUPES LINGUISTIQUES AU CAMEROUN



MAP 2

Langues nationales: Département de la MENCHUM
Menchum Division N.W.

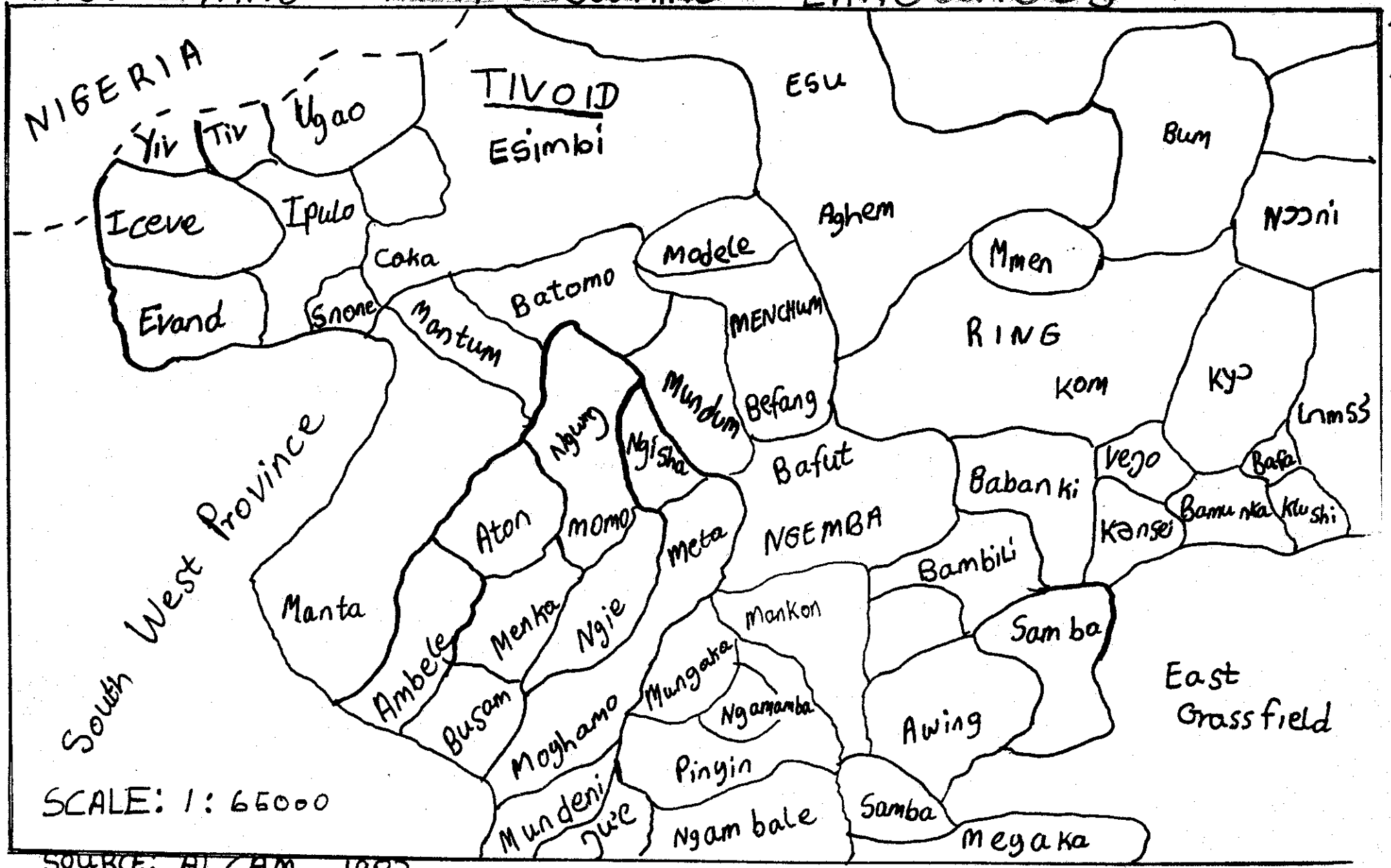


	département	arrondissement	district
limites	———	- - - - - - - - - -	.....
chef-lieu	◎	⊙	●

	langues	dialectes
limites	———	———
désignation	aghem 810	kumfutu

Bikia

MAP 3: BEFANG AND NEIGHBOURING LANGUAGES



SOURCE: ALCAM 1983

1.4.2 - Historical Location

The stories behind the origin of the Befang people have some controversies. As we are told, some people say the Befang people migrated from Manyu Division in the South West Province of Cameroon. Another group of people gave a contrary version. The latter say that, the Befang people left Bafang in the Western Province of Cameroon to Widikum. These two groups of people finally made us to understand that, the Befang people left Manyu Division, passing through Bafang to settle in Widikum. They never settled in Bafang. This may be true for there is no degree of resemblance between Befang and fe'efe'e.

Following the above discussion, we can say that, the Befang people migrated from Manyu, passing through Bafang to settle in Widikum. While in Widikum, the people who were in the minority and for fear of suppression from the larger groups, left Widikum and migrated through Meta and settled in a place called Abaton. This is on the highlands east of the present site. This movement was under the leadership of Bifang. Later on, a quarrel broke out between Bifang and his brothers, over diverse issues which led to their separation to various destinations.

From Abaton, Bifang led his own group along the banks of the River Menchum and settled in a place known as Obang, (which means river banks). One of Bifang's brothers called Fang moved to the high hills towards Wum. He founded a place in lower Fungom known as Fang (which means forest). While in Obang, Bifang and his people were subjected to the authority and hostilities of the Bafut people. For these reasons, Bifang and his people left Obang and continued their struggle in the forest along the River Menchum. During this movement, they met a small group under their leader Otang. Bifang and his group settled here for sometimes, before Manjang, one of Bifang's brothers abandoned them and moved further in the forest along the river side where he found a suitable place for settlement. The place presently called "Okomanjang" in the Befang language means the people of Manjang.

Bifang finally left Otang and led his people to the present site, which is administratively called Befang. It is worth noting here that the villages of Obang, Bangwe, Befang and Agwili all speak the Befang language without the noticeable differences.

1.4.3 – *Socio-Economic Situation*

The inhabitants of Befang are people from various linguistic origins. These people live harmoniously under one supreme figure, who is their chief. The chief who is at the head of the village, rules with the assistance of the traditional council, a council of sub-chiefs and various secret societies such as the "ìndé bəkùm". The only market day for the week is Saturday or (ivʲá ndʒí). On this day, local traders come from neighbouring villages to buy or sell basic needs.

As far as the economic life is concerned, the people derive their mainstay from agricultural activities. Agriculture in this area is favoured by very fertile alluvial soils, which are rich in food production. The people practise subsistence and near commercial farming. They grow both food and cash crops such as coffee, palms, coco-yams, plantains, maize and groundnuts. These assorted crops are consumed locally and sold to traders from Wum and Bamenda.

Fotoh (1999) says oil palm is the main cash crop of the Befang people. The whole Sub-Division is covered with palms and this accounts for the appellation "mbanga area" as we mentioned earlier. Palm oil is so important to these people in that, it has become a parameter for measuring wealth. A rich man is one who has many drums of oil per year. Palm oil is produced by using traditional oil mills called "íténh" and the by-products such as kernels are also of great importance. Kernels are used to produce "munyanga oil", used in producing soap. It is also sold to traditional healers. Another important product of the palms which makes its cultivation inevitable is palm wine. This wine is

used in pouring libation during ceremonies and it is the main alcoholic drink in the area.

Apart from agriculture, the people also keep livestock. They rear domestic animals like pigs and goats. Hunting is also an important activity of the men. It is often said that sometimes "big hunters" are "lyncanthropic" (to borrow Ihims' term), which he explained as the ability to transform themselves into monkeys and harbingers, which are the most hunted of the animals. Fishing is done in the numerous small streams and to a large scale in the river Menchum during the dry season when the tides are low.

1.5 – THE LANGUAGE AND LINGUISTIC CLASSIFICATION

1.5.1 - The Language

The Befang language (ùsá? bìfáŋ) as the people refer to it, is a language spoken by the Befang people (bìfáŋ) and Okomanjang with neglible differences. These differences, which are realized at the vocabulary level, do not impede mutual intelligibility between the two speakers. A good number of words in the language begin with vowels which function as prefixes. Introduce this table

Befang	Okomanjang	English Gloss
ì-mbùké	ù-bùkí	Pot
í-gámá	ì-ŋám	Plantain
á-kúf	ɔ-kúv	Bone
á-sə̀fɔ́	á-jə́n	Corn
ú-wɔ́ŋ	ú-búkí	Cup
ù-sáŋ	ù- sáŋ	Broom
ì-tó?	ì-ntó	Palace
ì-mùù	ì-mɔ́l	Urine
kivíŋ	tívíŋ	Feather
ì-wɔ́	ì-wɔ́lɔ́	Rain

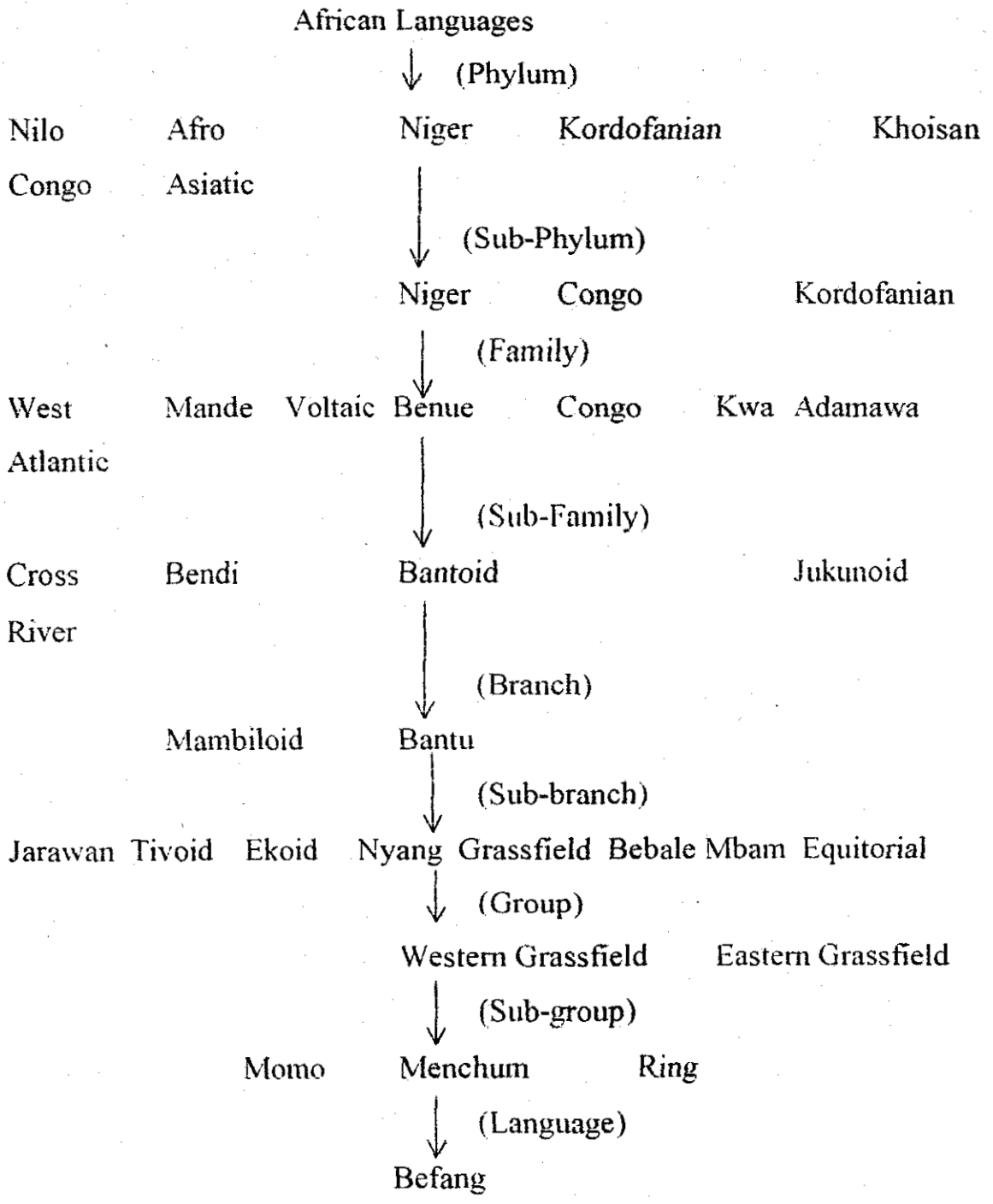
Table 1 Title?

Table one above shows some variations realized during data collection. Each of the two villages provided two native speakers who helped us to translate the data into the mother tongue. Apart from the slight differences revealed by the table above, its worth noting that the following villages: Obang, Bangwe and Agwili speak Befang without the noticable differences. We can therefore conclude here that all these villages speak the same variety, which is the Befang language. Other language varieties used by this community are pidgin and English language. These two varieties are mostly used by the non-natives to communicate in market places and offices and also to interact with the native speakers.

1.5.2 – Linguistic Classification

The Classification of African languages has been done by several linguists among whom are Guthrie (1984), Welmers (1973), Greenberg (1963,1970,1974) and Williamson (1973). In this study we will consider Greenberg's classification and ALCAM. According to ALCAM, Befang falls under zone 8 of the languages of Cameroon and is coded 851. This zone covers all the languages spoken North of the south west and West of the North West Provinces of Cameroon. Greenberg's genealogical classification traces the origin a language from the phylum, family, the branch and even its group.

The Genealogical classification of Befang



1.6 – REVIEW OF LITERATURE

The languages of Menchum West which is now known as Menchum valley with the exception of Esimbi, has not been the object of Linguistic studies for a long time. As such, there are rather few, if any written material does exist on the language spoken in this area. Befang, which is one of the

languages spoken in this region, faces this problem. This language has not been of much devoted interest to linguists.

This not withstanding, some indigenes of this region has written articles and unpublished documents on the language. These include the following: Ihims (1994) Menchum valley Sub-Division an Introduction, Fotoh (1999), Songs, Dirges and Female secret Societies in the Beba-Befang clan, and the paper of Ojang (1989).

All these people wrote something in connection with the Befang language or the Beba-Befang clan, which gave us vital information for this tedious work. Ojang's article, which was based on a data in Befang, he used the English phonetic alphabet to write out words in the language. He also used groups, to denote noun classes and even tones, which are pertinent features in African languages, were not considered. Furthermore, the simple fact that no scientific study has been carried out on the language so as to identify the pertinent sounds and the structure of the language through its syllables and words, this work was deemed necessary.

It is also of great importance to mention here that the contributions of the above-mentioned personalities paved the way for the progress of this project. Their ideas also inspired us in that it portrays the desire the natives had to see their language in a written form. This work is thus geared towards that desire to produce an alphabet and to propose a possible writing system and Orthographic norms for Befang.

1.7 – METHODOLOGY

Our main concern is to study the system of the Befang language. The theoretical framework of structural analysis will be used in this work.

The structural approach to linguistic analysis is required because nothing has been written on this language. Thus, to bring out the sound system which is the first step for the development of a language, it is necessary to begin with the structural approach to data analysis. This approach postulated by Troubetzkoy,

N.S (1939/1969), Kenneth Lee Pike (1949), Gaston Canu and Patrick Renaud (1971) and others will enable us make an inventory of all the sounds. These principles consist in making a phonetic inventory of the sounds, establishing a phonic chart, suspicious pairs, minimal and near minimal pairs, right up to establishing their context of occurrence, to see whether they are allophones of the same phonemes or distinct phonemes in the language. Essono (1998:90-91), recently elaborated on these steps to phonological analysis of a data. This analysis begins with an inventory of all the phonetic sounds, suspicious pairs, identifying sounds in minimal and near minimal pairs so as to establish them as phonemes in the language. Where we cannot find the above-mentioned pairs, we proceed to contextual analysis to determine whether they are allophones or separate phonemes. This approach enables us to know the sounds that are petinent in the language.

1.7.1 – Data Collection

Before going out on fieldwork, we had at our disposal a word list of two hundred words in the language by Ojang Patrick a native speaker of Befang based in Bamenda. We also used a questionnaire of 143 words list and the word list presented by Grebe (1989) in the collection of our data. We got data from informants through oral interviews.

According to BOUQUIAUX, L. and THOMAS (1992:32), it is stated that:

> *"Young people are more easily available than older men. It is true that older people are better repositories of tradition than the young and must be consulted for information, but an older person is not essential as the reference speaker. The opposite may even be preferable, even a teenager may make an excellent speaker".*

The above thought inspired us to contact some native speakers of the two dialect who helped us in translating the data. The two dialects are Befang and Okomanjang. We chose our informants from various age groups with whom we

carried out the transcription of the data. We had our main informants in Yaounde, whom we met from time to time to provide us with any vital information on the language. These informants who exercised a lot of patience and energy, helped us to transcribe a word list of about 1200 words established in the language. These words were then classified into verbs, nouns, adjectives, syllables and other grammatical categories. The main aim of this classification was to facilitate the task of sorting out sounds in minimal and near minimal pairs. This process was really time consuming in orders to produce good results. Finally, an inventory of the sounds was then elaborated in Befang and we continued with the procedure to phonological analysis, using the structural approach.

Below is a table of the informants we contacted in the course of this work.

N°	NAME	AGE	VILLAGE	OCCUPATION	RESIDENCE
1	M. Atang George	36	Befang	H/M of Central G.B.P.S Group II Y'de and President of Befang Family Group Yaounde	Yaounde
2	Mrs. Nji Celestine	26	Okomanjang	House-wife	Yaounde
3	M. Ketchem Godlove	33	Befang	Teacher in G.B.H.S Etoug-Ebe	Yaounde
4	Mr. Akoti Denis	29	Okomanjang	University Student	Buea
5	Pa Befang Akanji	73	Befang	Farmer	Befang
6	Hon. Ihims J.A	58	Esimbi	Member of Parliament Menchum valley.	Wum
7	Mr. Bezeng Thomas	30	Befang	University Student	Yaounde

Table 2

When the words were translated by the above-mentioned people, we arrived at the conclusion that, the two varieties are dialects of the same language. We used the International Phonetic Alphabet (IPA) system of transcription to transcribe the data.

CHAPTER TWO

VOWELS

2.1 – DEFINITION

Vowels have generally been considered as pure sounds (Ladefoged, 1975) while consonants are considered just as noise. Simo Bobda A. and Mbangwana Paul (1993:222) say "a vowel is a speech sound articulated so that there is a channel for the voice through the middle of the mouth i.e. with the air passing through the mouth in a continuous stream without any narrowing or obstruction".

2.2 – IDENTIFICATION OF VOWEL SOUNDS

Here, we will make a phonetic inventory of the vowels through a number of words to illustrate the various positions that each sound can occupy in a word.

2.2.1 – Phonetic Inventory of vowel sounds

The vowel [i]

[íté] stone

[tɔ́ŋǐ] to write

[físhí] to rub

[i] is the high, front and unrounded oral vowel

The vowel [e]

[úbé] knife

[féŋé] knife

[yéŋé] to do

[e] is the front, mid-high unrounded oral vowel

The vowel [ɛ]

[nɛ̃mɛ̀] sweet

[mɛ̀yǐ] salt

[lápɛ́] to pick

[ɛ] is the front, mid-low, unrounded oral vowel

The vowel [ə]

[təmɛ́] to knit

[dʒə́m] axe

[shə̀ńə] to dry

[ə] is the central mid-low unrounded oral vowel.

The vowel [a]

[á b á] bed

[t á ŋ] to count

[ɣá] to give

[**a**] is the central low, unrounded, oral vowel

The vowel [u]

[n ú] to drink

[ú s ú m] farm

[á k ú f] borne

[**u**] is a back, high rounded oral vowel

The vowel [o]

[b ó m] calabash

[g ó ʔ] fowl

[**o**] is the back, half-high , rounded, oral vowel

The vowel [ɔ]

[f ɔ́ l] to borrow

[mɔ̀mɔ́] to touch

[iw ɔ́] rain

[**ɔ**] is a mid-low, back, rounded oral vowel

The vowel [i:]

[á t^{w} í:] ear

[kí:] to know

[d ʒ î:ŋ] hole

[**i:**] is a long, front, high, unrounded oral vowel

The vowel [e:]

[ì ŋ é:] ankle

[k é:] to find

[t é:] to cut

[**e:**] is the long, front, mid-high unrounded oral vowel.

The vowel [ə:]

[í ɣ ɔ́:] termite

[u n ə́:n] floor

[gə́:] to walk

[**ə:**] is the long, mid-low, central, unrounded oral vowel

The vowel [u:]

[í n ù:] knee

[ì m ú:] urine

[m ú:] to swell

[**u:**] is the back, high, rounded long oral vowel

The vowel [o:]		**The vowel [a:]**	
[bó:]	to become tired	[zhá:]	to fly
[dó:]	to escape	[úwá:]	hand
[kõ:]	to harvest	[sà:]	to spread
[o:] is back, mid-high, long rounded oral vowel		**[a:]** is the central, low, long, unrounded oral vowel	

2.2.2 – Phonic vowel chart

i	i:			u	u:
e	e:			o	o:
ɛ		ə	ə:	ɔ	
		a	a:		

Table 3.

2.2.3 – Suspicious pairs of vowels

A suspicious pair is a pair of sounds that have a high degree of phonemic similarities. These sounds are grouped in pairs of two, so as to enable us analyse them in order to determine their phonemic status in the language.

[(i, e), (e, ɛ), (ə,a), (u,o), (o,ɔ), (u, u:), (i, i:), (e, e:), (a, a:), (o, o:), (ə,ə:)]

2.2.4 – Phonological analysis of vowels

This section helps us to determine the phonemic status of the vowel sounds in the Befang language.

2.2.4.1 – The status of long vowels

The following vowels in Befang (i, e, ə, a, u, o) are modified through lengthening. Long vowels which are attested in Befang, show a contrast in a

minimal and near minimal pair sequence with their short counterparts as shown below.

(1) The phoneme /i:/

(i:/i)	[ʒí:]	God	[ʒí]	to come
	[k í:]	to know	[kí]	to ring

/i:/ is a phoneme in the language

(2) The phoneme /e:/

(e:/e)	[ìŋé]	ankle	[ìŋʷé]	mountain
	[té:]	to cut	[té]	to read

/e:/ is a distinctive sound in the language

(3) The phoneme /ə:/

(ə:/ə)	[únə̂:n]	floor	[ñnán]	dirt
	[kə́:]	to wait	[kʲə́]	country

/ə:/ is a phoneme in Befang

(4) The phoneme /a:/

(a:/a)	[kʷá:]	to breathe	[úká]	money
	[ʒ ã:]	to fly	[yá]	to give

/a:/ is a phoneme in the language

(5) The phoneme /u:/

(u:/u)	[zú:]	bee	[zú]	to listen
	[mú:]	to swell	[mú]	to mourn

/u:/ is a distinctive sound in Befang

(6) The phoneme /o:/

(o:/o)	[d ó:]	to escape	[dzó]	to add

[kŏ :] to harvest [kó] to hold

/o:/ is a phoneme in the language

The data above illustrates that the long vowels contrast with their short counterparts in the Befang language. Long vowels are therefore said to be phonemic in the language

2.2.4.2 – Short vowels

The general principle established by the distributionalist phonological school of Leonard Bloomfield and his followers states that the phonological status of a vowel phoneme is established through the contrast of each vowel sound in one or several minimal pairs with others. In the absence of a minimal pair, we use a near minimal pair showing two phonetic differences between the words with a difference in meaning. The data below illustrates the contrastive status of vowels as phonemes.

(7) The vowel /**i**/

Its phonemic status is established through the following contrasts:

(i/i:) see the phoneme /i:/

(i/e)	[i b é]	kolanut	[i b í]	goat
	[f^{w} é]	to learn	[f í]	to plant

/i/ is a phoneme in Befang.

(8) The vowel /**e**/

It is revealed as a phoneme in the language through the following contrasts:

(e/i) see in the phoneme /**i**/

(e/ə)	[bémé]	to accept	[bənə]	to trap
(e/ɛ)	[féŋé]	to return	[fɛ́ nɛ́]	to sell
	[fə́ f]	to blow	[féf]	rat

misplaced

(e/e:) see (e:/e) in the phoneme /e:/

/e/ : is a phoneme in Befang

(9) The vowel /ɛ /

It is established as a distinctive phoneme, through the following contrasts:

(ɛ/e) see (e/ɛ) in the phoneme /e/

(ɛ/ə)	[fɛ́ nɛ́]	to sell	[fə́ nə́]	to close
	[nɛ́ mɛ́]	sweet	[nə́ mɔ́]	to extinguish
	[ùzɛ́ m]	song	[ì zə́ m]	night
	[tɛ́ m]	to clear	[tə́ m]	to shut
	[ɲɛ́ m]	to cook	[ɲə̀ m]	meat

/ɛ/ is a phoneme in this language.

(10) The phoneme / ɔ/

It gains its pertinence through the following contrasts:

(ə/ɛ) as seen in (ɛ/ə) in (9) above.

(ɔ/a)	[ú sə́ ŋ]	season	[úsáŋ]	broom
	[sɔ́ ŋ]	to shift	[sáŋ]	to select
	[kɔ́m]	to squeeze	[kám]	to tap

(ə/ə:) see (ə:/ə) in the phoneme /ə:/ in (9) above.

/ə/ is also a phoneme in Befang.

(11) The phoneme /a/

It is attested as a distinctive phoneme through the following words:

(a/ə) : as seen in (ə/a) in the phoneme /ə/ (10) above.

(a/a:) see (a:/a) in the phoneme /a:/ in (4) above.

/**a**/ : is a distinctive sound in the language.

(12) The phoneme **/u/**

The phonemic status of /u/ is revealed through the following contrasts:

(u/o)	[mú]	to swell	[mó]	water
	[dzú]	to climb	[dzó]	to join
	[kú]	to tie	[kó]	to hold
	[búk]	to break	[bók]	to shout
(u/ɔ)	[úwɔ́ŋ]	cup	[áwúŋ]	gutter
	[iwɔ́]	rain	[iwú]	death

(/**u**/u:) see the phoneme /u:/ in (5) above.

/**u**/ : is a phoneme is Befang.

(13) The vowel **/o/**

It is attested as a phoneme through the following contrasts:

(o/u) see **(u/o)** in the phoneme /u/ above.

(o/ɔ)	[úsɔ́ŋ]	river	[ísɔ́ŋ]	tooth
	[indɔ́ŋ]	horn	[ndɔ́ŋ]	potato

(o/o:) as seen in the phoneme /o:/ above

/o/ is a phoneme in Befang.

(14) The phoneme **/ɔ/**

It establishes its status as a phoneme through the following contrasts:

(ɔ/o) see **(o/ɔ)** in the phoneme /o/ in (13) above.

(ɔ/u) see **(u/ ɔ)** above in the phoneme /u/. in (12) above.

/ **ɔ**/ is therefore a phoneme in the language

/ɔ/ is a phoneme in the language.

2.3 – INVENTORY OF VOWEL PHONEMES

We have realized 14 vowel phonemes in Befang, after carrying out the analysis of the vowel sounds. These distinctive vowels are presented below:

/ɨ, e, ə, ɛ, a, u, o, ɔ, ɨ:, e:, ə:, a:, u:, o:/

2.4 – DEFINITION AND CLASSIFICATION OF VOWEL PHONEMES

2.4.1 – Definition of Phonemes

These vowel phonemes are defined with attention focused based on the major features that differentiate them from other vowels of the system, and more especially with those vowel phonemes that are closely related to the vowel in question.

/i/ is front, high vowel

/i:/ is front, high, long vowel

/e/ is front, mid-high vowel

/e:/ is front, mid-high, long vowel

/ɛ/ is front, mid-low vowel

/ə/ is central, mid-low vowel

/ə:/ is central, mid-low, long vowel

/a/ is central, low vowel

/a:/ is central, low, long vowel

/u/ is back, high, rounded vowel

/u:/ is back, high long, rounded vowel

/o/ is back, mid-high, rounded vowel

/o:/ is back, mid-high, long, rounded vowel

/ ɔ/ is back, mid-low, rounded vowel

2.4.2 – Classification of phonemes

The classification of the vowel phonemes in Befang is carried out following:

- The height of the tongue in the mouth.

  Front : /i/, /e/, / ɛ /, /i:/, /e:/

  Central: / ə /, /a/, /ə :/, /a:/

  Back: /u/, /o/, / ɔ /, /u:/, /o:/

- The position of the lips.

  Rounded: /u/, /o/, / ɔ /, /u:/, /o:/

  Unrounded: /i/, /e/, / ɛ /, /ə /, /a:/, /i:/, /ə :/, /e:/

- The height of the tongue

  High: /i/, /u/, /i:/, /u:/

  Mid-high: /e/, /o/, /e:/, /o:/

  Mid-low: /ɛ /, /ə /, /ɔ /, /ə :/

  Low : /a/, /a:/.

2.4.3 – Phonemic chart of vowels

Place of articulation / Height of tongue	Front (unrounded)		Central (unrounded)		Back (rounded)	
	Short	Long	Short	Long	Short	Long
High	/i/	/i:/			/u/	/u:/
Mid-high	/e/	/e:/			/o/	/o:/
Mid-low	/ɛ /		/ə /	/ə : /	/ɔ /	
Low			/a/	/a:/		

Table 4

The table above shows the phonemic vowel sounds attested in the Befang language, after our phonological analysis. The language has 14 phonological vowels.

CHAPTER THREE
CONSONANT SOUNDS

3.0- INTRODUCTION

This chapter is aimed at identifying and classifying the consonant sounds attested in Befang. Our attention here is based on establishing the distinctive consonant sounds in the language.

We will contrast consonant sounds in minimal and near minimal pairs, using the approach posited by Pike (1947), and Wieseman et al (1983). The examination of sounds in minimal and near minimal contexts will help us to establish their phonemic status. In cases where we cannot determine the sounds as phonemes, we will examine their distribution in words or environments of occurrence. This examination will reveal the status of the sounds either as allophones of the same phoneme or distinct phonemes in the language.

Generally, a consonant is a sound produced with an obstruction along the vocal tract. The place of the obstruction usually determines the name of the consonant; for example bilabials are produced with the obstruction at the level of the lips, alveolars with an obstruction at the level of the alveolar ridge, palatal zone and velars with obstruction at the level of the velum.

Simo Bodba Augustine and Mbangwana Paul (1993:4) say "a consonant is a speech sound produced by obstruction or blocking the airstream somewhere and releasing it."

3.1 – IDENTIFICATION OF CONSONANT SOUNDS

In this section, we will present a phonetic inventory of the sounds identified in the language and this will closely be followed by a phonic chart of all the consonant sounds.

3.1.1 – Phonetic inventory of consonant sounds

The sounds presented below are consonant sounds that are phonetically realized in the Befang language, observed in a 1200 word list of the language. From this list of words, we had 45 consonants. These consonants are made up of simple and comple sounds. The complex sounds include modified sounds like labialised, palatalized, palatalized, prenasalised and affricates.

The sound	Example word	Gloss
[p]	[ləp]	"speak"
	[ləpɛ́]	"pick"
	[dzáp]	"soil"

[p] is the voiceless, bilabial oral stop.

[b]	[bɔ́m]	"calabash"
	[jìbí]	"to peel"
	[bú]	"dog"

[b] is the voiced, bilabial oral stop.

[b^w]	[ábʷəǹ]	lies
	[kíbʷán]	liver
	[ábʷé]	fish

[b^w] is the voiced labialised bialabial oral stop.

[b^j]	[á b^jə́ n]	corn fufu
	[b^já]	build, weave, plait
	[ì b^jə́ nə́]	fence
	[ì b^jə́ mə́]	jump

[b^j] is the voiced palatalized bilabial oral stop.

[t]	[té]	read
	[útáj]	three
	[túm]	send
	[fúkɔ́t]	cat
[tʲ]	[tʲá]	sting, kick
	[útʲəp]	hut
	[ìtʲən]	five
	[tʲáwá]	to curse

[tʲ] is the palatalized voiceless alveolar oral stop.

[tʷ]	[átʷi:]	ear
	[mátʷá]	ash

[tʷ] is the labialised voiceless alveolar oral stop.

[d]	[dáŋé]	to cross
	[dó:]	escape
	[ádəsà]	mushroom
	[ùdɔ́ŋɔ́]	chief

[d] is the voiced alveolar oral stop.

[k]	[ŋúk]	smell
	[kákʲə]	big
	[káŋ]	fry
	[zúk]	boil (v)
	[tékí]	carry

[k] is the voiceless oral velar stop.

[kʲ]	[kʲən]	stay

	[kʲɔ́ m]	squeeze
	[zúkʲí]	understand
	[mákʲɔ́]	corn beer

[kʲ] is the palatalized voiceless oral velar stop.

[kʷ]	[ákʷéŋ]	lizard
	[kʷá:]	breathe
	[úkʷɔ́ŋ]	pestle

[kʷ] is the labialzed voiceless oral velar stop.

[ʔ]	[ifʷáʔ]	work
	[káʔ]	start
	[fɔ́sáʔ]	needle
	[ǐ bɔ́ ʔ]	pumpkin

[ʔ] is the voiceless glottal oral stop.

[kp]	[ù k pɔ́]	palm wine
	[k pɔ́ ŋ]	stunted
	[k pɔ́ :]	drunkenness

[kp] is the voiceless labial-velar oral stop.

[gb]	[kǐ g bɔ́]	ropes
	[ú g bɔ́]	net
	[á g ɓɔ́ :]	tsetse fly

[gb] is the voiced labial-velar oral stop.

[g]	[gɔ́l]	voice

	[bágúm]	all
	[fúgɔ́n]	star

[g] is the voiced velar oral stop.

[gʲ]	[gʲé]	to wear
	[gʲì pɔ́]	to share

[gʲ] is the voiced palatalized oral velar stop.

[gʷ]	[úgʷé]	arm
	[gʷá]	grind
	[gʷɔ́]	to land

[gʷ] is the voiced labialised oral velar stop.

[mb]	[fùmbèŋé]	bell
	[ímbòk]	hawk
	[ímbá]	cloud
	[fúmbán]	nail

[**mb**] is the bilabial prenasalized stop.

	[ndàm]	many
	[ìndàŋ]	chair
	[ǐndà p]	house
	[ándé]	who

[**nd**] is the prenasalized alveolar stop.

[ndz]	[índzómó]	frog
	[ìndzùm]	wind
	[má ndzá ŋ]	fat oil

[**ndz**] is the prenasalized alveolar affricate.

[m]	[á ɲǐ m]	lap

	[m á ɾ ɔ́ n]	middle
	[w á t ù m]	stranger
	[í g á m á]	plantain

[**m**] is the bilabial nasal.

[m^w]	[m^wă]	shave
	[m^w á n]	pinch
	[ù m î ŋ]	neck

[**m^w**] is the labialised bilabial nasal.

[n]	[nú]	smoke, drink
	[úk^{w}ìní]	hill
	[úk^{w}ɔ̀n]	tail

[**n**] is the alveolar nasal.

[ɲ]	[ɲ ĭ]	win, eat
	[áɲùm]	year
	[úɲá]	stomach

[**ɲ**] is the palatal nasal.

[ŋ]	[wúŋ]	lazy
	[lɔ́ŋ]	see
	[fúmbóŋí]	apple

[**ŋ**] is the velar nasal.

[$ŋ^w$]	[fùnúŋ^{w}ɔ̀]	"bird"
	[ì ŋ^{w}é]	mountain

[**$ŋ^w$**] is the labialised velar nasal.

[ts]	[tsɔ̀ŋ]	steal
	[tsɔ́k]	laugh
	[wútsɔ̀ŋɔ́]	thief

[ts] is the voiceless alveolar affricate.

[dz]	[dzɔ̀m]	back
	[ìdzáwɔ́]	sky
	[dzɔ́ŋ]	hunger
	[ádzáɲé]	cricket.

[dz] is the voiced alveolar affricate.

[tʃ]	[tʃì]	throw
	[tʃíbé]	teach
	[tʃám]	war
	[t ʃ ì s h é]	show
	[ùtʃì]	medicine

[tʃ] is the voiceless pre-palatal affricate.

[dʒ]	[dʒɛ̀]	weep
	[dʒɔ̀m]	axe
	[ì d ʒ ì]	cry

[dʒ] is the voiced pre-palatal, affricate.

[f]	[fi]	plant
	[fishí]	to rub
	[ŋáfé]	to bend
	[zéfé]	yawn

[fé f] cold

[f^j] is the voiceless labial dental oral fricative.

[f^j]	[á f^j ə́]	yam
	[f^j é]	here
	[ú f^j áŋé]	food

[f^j] is the palatalized voiceless labial dental fricative.

[f^w]	[f^w é]	learn
	[ìf^{w}á?]	work

[f^w] is the labialised voiceless labial dental fricative

[v]	[ví]	kill
	[kívì]	moustache
	[ivúl]	nuts.

[v] is the voiced labial dental fricative.

[s]	[ì s á s ì]	sand
	[s ə́ m]	dig
	[t s ó s]	itches

[s] is the voiceless alveolar oral fricative.

[z]	[i z í l í]	shadow, picture
	[z ɛ́ m]	sing
	[n ú z é]	bring

[z] is the voiced alveolar oral fricative.

[ʃ]	[*ʃə̀ nə̀*]	dry

	[á m bì ʃ]	us, we
	[ʃúzɔ́ŋ]	clean

[ʃ] is the voiceless pre-palatal fricative.

[ʒ]	[ʒá:]	to fly
	[nɛ́ ʒǐ]	mother
	[ʒǐ]	to come

[ʒ] is the voiced pre-palatal fricative.

[ɣ]	[ɣá]	to give
	[úɣáŋ]	vein
	[íɣélé]	sense

[ɣ] is a voiced velar fricative.

[h]	[ùkáhí]	arrow
	[úwúhɔ́]	yesterday
	[álúhú]	poison

[h] is the voiceless glottal fricative.

[vʲ]	[ú-vʲ á]	palm tree

[vʲ] is the palatalized labial dental fricative.

[l]	[lésí]	deceive
	[ǐɣǐlí]	worm
	[úgúl]	skin, body
	[mə̀wúl]	oil

[l] is the voiced alveolar lateral.

[lʲ]	[lʲá]	like, want
	[ilʲé]	chin
	[ùlʲɔ́]	bridge

[lʲ] is the palatalized voiced alveolar lateral.

[j]	[jép]	tear (v)
	[mɛ̀jí]	salt
	[ùtáj]	three

[j] is the palatal approximant.

[w]	[wù]	person
	[áwún]	breast
	[wùŋ é]	disturb
	[máwún]	milk

[w] is the labial velar glide.

The consonants below represent the 45 phonetic consonant sounds in the Befang language ~~as could be seen in the data below~~.

[p, b, b^w, b^j, t, t^w, t^j, d, k, k^w, k^j, ʔ, kp, gb, g, g^j, g^w, mb, nd, ,dz, m, m^w, n, ɲ, ŋ, $ŋ^w$, ts, dz, tʃ, d , f, f^j, f^w, v, v^j, s, z, ʃ, ʒ, ɣ, h, l, l^j, j, w]

3.1.2 – Phonic consonant table

A phonic chart is one with no labels. The table presents all the phonetic consonants attested in Befang. The sounds are classified following the place and manner of articulation. The phonic consonant chart for Befang is presented below.

p						t	t^w	t^j			k	k^w	k^j	ʔ	kp
b	b^w	b^j				d					g	g^w	g^j		gb
mb						nd ndz									
m	m^w					n				ɲ	ŋ	$ŋ^w$			
						ts			tʃ						
						dz			d_3						
			f	f^w	f^j	s			ʃ					h	
			v		v^j	z			3		ɣ				
						l		l^j							
w										j					

Table 5. Title?

3.1.3 – Suspicious Pairs of Consonant

As earlier mentioned in section 2.2.3, this is a pair of sounds with a high degree of phonetic similarities. These similar pairs are analysed so as to establish them as distinct phonemes or variants of the same phoneme. These pairs include the following.

[(p,b), (b,b^w), (b,b^j), (b^j,b^w), (b,m), (b,v), (mb,m), (mb,b), (w,b), (m,m^w), (m,n), (f,f^w), (f,f^j), (f^j,f^w), (f,v), (v,v^j), (t,d), (t,t^w), (t,t^j), (t,s), (t,ts), (ts,dz), (ts,tʃ), (ts,s), (dz,z), (ndz,nd), (nd,n), (nd,dz), (n,ŋ), (n,dz), (nd,z), (z,dz), (dz,d_3), (s,z), (s,ʃ), (z,3), (l,l^j), (tʃ, d_3), (ʃ,3), (tʃ,ʃ), (d_3,z), (3,d_3), (ɲ,n), (ɲ,ŋ), (ɲ,j), (j,w), (ŋ,$ŋ^w$), (ŋ,n), (k,k^w),(k,k^j),(k,g), (g,g^w), (g,g^j), (k^w,g^w), (ɣ,g), (ɣ, 3),(ʔ, k) (ʔ,h), (kp,gb).

I did not see its

3.2 – PHONEMIC ANALYSIS OF CONSONANTS

This analysis consists in distributing all the suspicious pairs that contrast in some environments. These sounds can contrast in minimal and near minimal pairs. In the case where the above procedure fails, the sounds would be examined in contextual variation to be considered as allophones of the same phoneme or separate phonemes. To achieve this goal, we will use the words which will enable us to make a comparison of the contexts of occurrence of the sounds in question, so as to see if the difference in these sounds do not exist at the level of context.

3.2.1 – The Identification of phonemes through their contrast in minimal pairs.

By minimal pairs here we mean the contrast of two sounds in the same environment or in near minimal pairs and giving different meanings to the words in which they occur. When this happens, the two sounds are therefore considered as separate phonemes in the language.

(1) The Consonant /b/

It establishes its status as a phoneme through the following contrasts:

(b/m) :	[bú:]	dog	[m ú:]	"to swell"
(b/v) :	[bí]	goat	[ví]	to kill
	[ibí]	goats	[iví]	nose
(b/b^j) :	[ábən]	law	[$áb^jən$]	corn fufu
	[bí]	goat	[b^ji]	to give birth

/b/ is therefore a phoneme in Befang

(2) The Consonant / **b^j** /

The phonemic status of /b^j/ as a distinctive sound unit in Befang is established through its contrast with the phoneme /b/.

(b^j/b) : see (b/b^j) in the phoneme /b/ in (1) above

(b^j/b^w) : [$áb^jən$] corn fufu [$áb^wən$] lies

/b^j/ is therefore a phoneme in Befang.

(3) The Consonant /ɓ^{w}/

Its phonemic status is realized through the following contrasts:

(b^{w}/b) : [áb^{w}ɔ́n] lies [ábɔ́n] laws

(b^{w}/b^{j}): see (b^{j}/b^{w}) in (2) above.

/ɓw/ is a distinctive sound in the language

(4) The Consonant /**m**/

It gains its pertinence as a phoneme in the language in the following contrasts:

(m/b) see (b/m) in the phoneme /b/. in (1).

(m/n) :	[máj]	to meet	[náj]	to go
	[ìmú:]	urine	[ìnú:]	knee
	[k^{j}ə́m]	to squeeze	[k^{j}ɔ́n]	to stay

/m/ is a phoneme in the language.

(5) The Consonant /**f**/

It is realized as a phoneme through the following contrasts in identical contexts:

(f/v) : [fí] to plant [ví] to kill

/f/ is a pertinent sound in Befang

(6) The Consonant /**v**/

It is attested as a phoneme in Befang through the following contrasts:

(v/f) see (f/v) in the phoneme /f/ in (5).

(v/b) see (b/v) in the phoneme /b/ in (1) above.

/v/ is therefore a phoneme in Befang.

(7) The Consonant /**f^{j}**/

It is established as a phoneme in Befang in the following contrast:

(fʲ/fʷ) : [fʲé] here [fʷé] to learn

/fʲ/ is thus a phoneme in Befang

(8) The Consonant **/fʷ/**

It is realized as a phoneme through the following contrast:

(fʷ/fʲ) : see (fʲ/fʷ) in (7) above.

/fʷ/ is realized as a phoneme in Befang

(9) The Consonant **/t/**

It acquires its phonemic status through the following contrasts:

(t/d) :	[táŋé]	to think	[dáŋé]	to cross
(t/s) :	[táŋ]	to count	[sáŋ]	to spread
	[ítóŋ]	naval	[ísóŋ]	tooth
	[tə́m]	to shut	[sə́m]	to dig
(t/ts) :	[tóŋ]	to crow	[tsóŋ]	to steal
	[táŋé]	to think	[sáŋé]	to scatter

/t/ is a phoneme in the language

(10) The Consonant **/d/**

It gains its status as a phoneme through the following contrast:

(d/t) : see (t/d) in the phoneme /t/ in (9) above.

/d/ is a pertinent sound in the language

(11) The Consonant **/nd/**

It is proven as a phoneme in the language through the following contrasts:

(nd/dz):	[ndə̀m]	many	[dzə̀m]	back
	[ǐndóŋ]	horn	[ídzóŋ]	hunger
(nd/n):	[ndə̀m]	many	[nə̀m]	put
	[ndə̀m]	many	[nə̀m]	to quench

/nd/ is a phoneme in Befang

(12) The Consonant **/ts/**

It gains its phonemic status through its contrasts in the following words:

(ts/t) : see (t/ts) in the phoneme /t/ in (9) above

(ts/dz) :	[tsɔ́ŋ]	to steal	[dzɔ́ŋ]	hunger
	[tsú]	to pay	[dzú]	to climb
	[tsə̀m]	to swim	[dzə̀m]	back
(ts/tʃ)	[tsə̀m]	to swim	[tʃə̀m]	war
(ts/ʃ)	[tsú]	to pay	[ʃú]	to wash

/ts/ is thus a phoneme in the language.

(13) The Consonant **/dz/**

It is attested as a phoneme through the following contrasts:

(dz/ts) : see (ts/dz) in the phoneme /ts/ in (12) above

(dz/z):	[dzáp]	soil	[záp]	weed
	[dzú]	to add	[zú]	bee

(dz/nd) : see (nd/dz) in the phoneme /nd/ in (11) above

(14) The Consonant **/s/**

The phonemic status is revealed in the following contrasts:

(s/t) : see (t/s) in the phoneme /t/ in (9)

(s/z) :	[ísɔ́ŋ]	tooth	[ízɔ́ŋ]	spear
	[sə́m]	to dig	[zə́m]	to sing

/s/ is a phoneme in the language.

(15) The Consonant **/z/**

It is realized as a phoneme through the following opposition:

(z/dz): see (dz/z) in the phoneme /dz/ in (13) above

(z/s): see (s/z) in the phoneme /s/ in (14) above.

(z/dʒ):	[zə́m]	to sing	[dʒə́m]	axe
	[zé:]	to vomit	[dʒé:]	to weep

/z/ is a distinctive sound in Befang

(16) The Consonant **/n/**

It acquires its status as a phoneme through its opposition in the following words:

(n/m) :	see (m/n) in the phoneme /m/ in (4) above			
(n/ŋ) :	[bɔ́n]	children	[bɔ́ŋ]	good
	[áwún]	breast	[áwúŋ]	gutter
	[íkɔ́n]	friend	[íkə́ŋ]	boy
(n/dz) :	[nú]	to drink	[dzú]	to climb

/n/ is a pertinent sound in the language

(17) The Consonant **/tʃ/**

It is realized as a phoneme in the language through its contrast in the following:

(tʃ/ ts):	see (ts/ tʃ) in the phoneme /ts/ in (12) above			
(tʃ/dʒ) :	[tʃə́m]	war	[dʒə́m]	axe

/tʃ/ is a phoneme in Befang.

(18) The Consonant **/dʒ /**

It acquires its pertinence in the following contrasts:

(dʒ /tʃ): see (tʃ/ dʒ) in the phoneme /tʃ/ in (17) above.

(dʒ /z): see (z/dʒ) in the phoneme /z/ in (15) above.

(dʒ/dz): [dʒə́m] axe [dzə́m] back

/dz/ is a distinctive sound in the language.

(19) The Consonant /ɲ/

It is established as a phoneme through the following contrasts.

(ɲ/n) :	[ní]	to enter	[ɲi]	to eat
	[nú]	to smoke, drink	[ɲú]	to push
	[únùm]	husband	[áɲùm]	year
(ɲ/nd):	[ndòŋ]	potato	[ɲó ŋ]	to run

/ɲ/ is therefore a phoneme in Befang

(20) The Consonant /k/

It is established as a distinctive phoneme through the following contrasts:

(k/g) :	[kɔ́l]	to cover	[gə́l]	road
	[kó?]	to rise (sm)	[gó?]	fowl
(k/?) :	[ábók]	compound	[íbó?]	pumpkin

/k/ is a phoneme in Begang.

(21) The Consonant /g/

Its status as a phoneme is established through its contrast in the following:

(g/k) :	[gə́l]	voice	[kə́l]	to cover
	[gɔ́:]	to walk	[kə́:]	to protect
(g/ ?)	[gó?]	fowl	[kó?]	to rise
(g/ɣ)	[gɔ́l]	voice	[ɣə́l]	road
	[ígáŋ]	grass	[úɣáŋ]	root

/g/ is a phoneme in Befang.

(22) The Consonant / ŋ/

It gains its phonemic status through the following contrasts:

(ŋ /n) see (n/ŋ) in the phoneme /n/ in (16) above.

/ ŋ / is a pertinent sound in Befang.

(23) The Consonant / ɣ /

It acquires its pertinence through the following contrasts:

(ɣ /g) : see (g/ ɣ) in the phoneme /g/ in (21) above.

(ɣ /ʒ): see (ʒ/ɣ) in the phoneme (ʒ) below.

/ ɣ / is a distinctive sound in Befang.

(24) The Consonant /**kp**/

It is distinguished as a phoneme through the contrast below:

(kp/k) :	[kpɔ́ :]	drunkenness	[kə́ :]	to wait
(kp/gb):	[úkpə́]	wine	[úgbə́]	net

/kp/ is a phoneme in Befang.

(25) The Consonant /**gb**/

It is proven as a distinct phoneme through the following opposition:

(gb/kp) see (kp/gb) in the phoneme /kp/ in (24) above.

(gb) is thus a pertinent sound in Befang.

(26) The Consonant /**w**/

The phonemic status of /w/ is established through the following contrasts:

(w/b) :	[íwúm]	ten	[íbúm]	egg
	[wú]	person	[bú]	dog
	[íwú]	death	[íbú]	angle

/w/ is a phoneme in Befang.

3.2.2 – Identification of phonemes through their contrast in near minimal pairs

(27) The Consonant /**mb**/

It acquires its status as a phoneme in the following contrasts:

(mb/m):	[ìmbə́ká́]	chisel	[ámə́ká́]	dew
(mb/b):	[ìmbók]	hawk	[ábók]	compound

/mb/ is a distinctive sound in Befang.

(28) The Consonant /**j**/

It gains its phonemic status through the following contrasts:

(j/w) :	[jéŋé]	to do	[wúŋé]	to disturb
(j/ɲ) :	[jə́n]	baby	[ɲə́ n]	to day
	[jém]	to sing	[ɲém]	to cook

/j/ is a phoneme in Befang

(29) The Consonant /t^w/

It is proven as a phoneme in the language through its constrast in the following words:

(t^w/t) :	[át^wí:]	ear	[átú]	head
	[mát^wá]	ash	[mátə́n]	middle

/t^w/ is a phoneme in Befang.

(30) The Consonant /t^j/

It is establishes its phonemic status through the following constrasts:

(t^j/t) :	[t^já]	to kick	[té]	to read
	[ít^{j}ə́n]	five	[tə́n]	strong

/t^j/ is a distinctive sound in Befang.

(31) The Consonant /ndz/

It is realized as a phoneme through the following contrasts:

(ndz/dz):	[ìndùm]	wind	[ídzúm]	good
(ndz/z) :	[mándzáŋ]	fat oil	[ázáŋ]	iron
(ndz/nd) :	[indzúm]	wind	[ìndóŋ]	horn

(ndz) is a phoneme in Befang.

(32) The Consonant /l/

It is proven as a phoneme in the language through its contrast in the following:

(l/n) :	[kʲél]	country	[kʲə̃ n]	seat
	[úlə́ŋ]	bamboo	[únə̃́m]	tongue
	[bə̀lé]	to rule	[bə̀nə̃́]	to trap
	[lə́p]	to speak	[ɪnə̃́p]	pond
(l/nd):	(lə́ŋ]	to see	[ndə̀m]	many
(l/d) :	[úlə̀né]	boundary	[ùdə̀ŋə̃́]	chief
	[úlúnú]	suffer	[údûnù]	old age
(l/lʲ) :	[lə̃́ŋ]	to see	[lʲə̃́n]	to creep
	[lě :]	to pour	[lʲ á]	to like

/l/ is a phoneme in Befang.

(33) The Consonant /lʲ/

It is realized as a phoneme through the following constrast:

(l/lʲ) :	[lə́ŋ]	to see	[lʲə́n]	to creep
	[lě:]	to pour	[lʲá]	to like

/lʲ/ is a distinctive sound in Befang.

(34) The Consonant / ʃ /

It is proven as a distinctive phoneme through the following contrasts:

(ʃ/ts) :	[ʃù]	to wash	[tsú]	to pay
(ʃ /s) :	[fĭjĭ]	to rub	[fə́sə́]	to resemble
	[jĭʃə́]	to sweep	[jə́sə́]	to untie

/ ʃ/ is a pertinent sound in the language.

(35) The Consonant /ʒ/

It is attested as a phoneme through the following contrasts:

(ʒ/d ʒ):	[ʒ í]	to come	[íd ʒ í]	to cry
	[ʒ á:]	to fly	[d ʒɛ́]	to weep
(ʒ /dz):	[ʒ á:]	to fly	[dzə̌:]	to splash
(ʒ / ɣ):	[ʒ á:]	to fly	[ɣá]	to give

/ʒ/ is a phoneme in the language

(36) The Consonant /kʲ/

It acquires its phonemic status in the language through the following contrasts:

(kʲ/k) :	[kʲé]	to beat	[ká:]	to protect
	[kʲə́m]	to squeeze	[kə́m]	to tap
	[kʲə́n]	to stay	[kə̀m]	to tap
	[kʲén]	to stay	[kə̃l]	to cover
	[ĭkʲɔ́ʔ]	four	[úkɔ́ʔ]	ladder
(kʲ/gʲ) :	[kʲé]	to beat	[gʲé]	to wear

/kʲ/ is a phoneme in the language.

(37) The Consonant /kʷ/

It is proven as a phoneme through its contrast with the following sounds:

(kʷ/k) :	[úkʷá]	belt	[úká]	money

	[k^{w}á:]	to breathe	[ká?]	to start
	[ík^{w}áŋá]	snore	[ákáŋ]	dish
(k^{w}/g^{w}) :	[úk^{w}á]	belt	[úg^{w}é]	arm
	[k^{w}á:]	to breathe	[g^{w}á]	to grind

/k^{w}/ is a phoneme in Befang.

(38) The Consonant /g^{j}/

It is established as a phoneme through the following contrasts:

(g^{j}/k^{j}) : see (k^{j}/g^{j}) *in the* phoneme /k^{j}/ in (36) above.

(g^{j}/g^{w}) :	[g^{j}é]	to wear	[úg^{w}é]	arm
(gj/g) :	[g^{j}é]	to wear	[gɔ́:]	to walk

/g^{j}/ *is a pertinent sound* in Befang.

(39) The Consonant /g^{w}/

Its status as a phoneme in the language is acquired through the following contrasts:

(g^{w}/k^{w}) see (k^{w}/g^{w}) in the phoneme (k^{w}) in (37) above.

(g^{w}/g) :	[g^{w}ɔ́ ʔ]	to land	[ìgóʔ]	cutlass
	[g^{w}á]	to grind	[gɔ́:]	to walk

/g^{w}/ *is thus established* as a phoneme in Befang.

(40) The Consonant /ʔ/

It establishes its status as a phoneme in Befang through the following contrasts:

(ʔ/k) :	[ibóʔ]	pumpkin	[ábók]	compound
(ʔ/h) :	[ísàʔ]	hook	[íséh]	grave
	[ákáʔ]	bundle	[úkàhì]	arrow

/ʔ/ is a phoneme in Befang.

(41) The Consonant /**h**/

It acquires its pertinence as phoneme in the language through the following contrasts:

(h/ʔ) see (ʔ/h) in the phoneme (40) above

/h/ is a distinctive sound in Befang.

(42) The Consonant /**ŋ^{w}**/

It is proven as a phoneme in Befang through the following contrasts:

(ŋ^{w}/ŋ)	:	[iŋ^{w}é]	mountain	[ìŋé]	ankle
(ŋ^{w}/g^{w})	:	[iŋ^{w}é]	mountain	[ìg^{w}é]	arms

/ŋ^{w}/ is therefore a phoneme in Befang.

3.2.3 – Contextual Analysis

This refers to the phenomenon whereby two sounds constituting a suspicious pair occur in mutually exclusive environments or contexts, in words, where the other one cannot occur. The two sounds are consided as allophones of the same phoneme. Essono (1998:90) says:

> *Deux phones qui constituent un paire suspecte se trouvent en variation contextuelle, en variation combinatoire ou en Distribution Complèmentaire (DC) lorsque, appartenant à un même phoneme, ils apparaissent dans les contexts ou environnements exclusifs. Chacun des sons est attesté dans un entourage phonique particulier où l'autre n'apparaît jamais.*

We will be examining only pairs of sounds which never contrasted in minimal and near minimal pairs, so as to establish their contexts of distribution in the language. We will examine the following pairs of sounds : [(p/b), (m/m^{w}), (v/v^{j})]

(1) **(p/b)**

[p]		[b]	
[íkúpé]	balance	[bɔ́n]	children
[ágɔ́p]	hoe	[íbé]	kola nut
[ínɔ́p]	pond	[bɔ́nɔ́]	to trap
[záp]	to weed	[jìbí]	to peel
[jép]	to tear	[búfé]	to ask
[dzáp]	ground	[ábɔ́n]	law
[lɔ́pé]	to pick	[kíyébé]	feathers
[igúp]	skin	[fúbúk]	chimpanzee
[ʒɔ́ pɔ́]	tear	[íbúm]	egg
		[ábá]	bed

The data above reveals that [p] and [b] can occur before the vowel [e]. Their occurrence in this environment is phonetically realized, not due to the surrounding sounds. As such, it could be concluded that /p/ and /b/ are distinct phonemes in Befang.

(2) **(m/m^{w})**

[m]		[m^{w}]	
[mó]	water	[m^{w}á]	to live
[áɲúm]	year	[m^{w}à n]	to shine
[ìkám]	drum	[úm^{w}ìŋ]	neck
[mátàn]	middle	[m^{w}án]	to pinch
[tímí]	to stand		
[máwún]	milk		

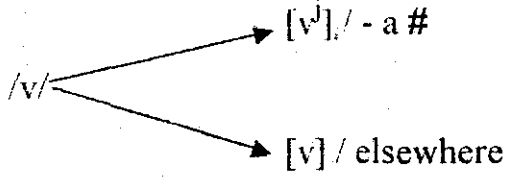
This sounds [m] and [m^{w}] are phonetically similar though they do not occur in identical environments. Both sounds precede the vowel [i]. This environment

is phonetically realized and is not influenced by the surrounding sounds. /m/ and /m^w/ occur in analogous contexts and are therefore distinct phonemes in the language.

(3) (**v/v^j**)

[v]		[v^j]	
[ivi]	nose	[úv^j á]	palm tree
[vi]	to kill		
[ivúl]	nuts		
[kívìŋ]	*feather*		

From the data above we notice that, both sounds occur in the medial position. Their occurrence in this environment is not phonetically realized but is due to the influence of the surrounding sounds. They are therefore allophones of the same phoneme. The consonant /v/ is realized as [v^j], when it precedes [a] at word final and remains [v] elsewhere.



3.3 – THE PHONEMIC INVENTORY OF CONSONANTS

From the phonological analysis which we carried out, we have the following consonants established as phonemes in Befang:

/p, b, t, d, dʒ ,tʃ, k, g, ʔ, h, kp, gb, mb, nd, n, ndz, m^w, m, ɲ, ŋ, ɣ, s, z, ts, dz, ʒ, ʃ, f, f^j, f^w, b^w, b^j, t^w, t^j, $ŋ^w$, k^w, k^j, g^w, g^j, l^j, v, l, j, w/

3.3.1 – THE BEFANG PHONEMIC CONSONANT CHART

Place of articulation / Manner of articulation			Bilabials	Labial dentals	Alveolars	Palatals	Velas	Glottals	Labial velar
STOPS	plosive	VL	/p/		/ t/ /t^{w}/ /t^{j}/		/k/ /k^{w}/ /k^{j}/	/ ʔ /	/kp/
		VD	/b/ /b^{w}/ /b^{j}/		/d/		/g/ /g^{w}/ /g^{j}/		/gb/
	Pre-nasal		/mb/		/nd/ ndz/				
	nasal		/m/ /m^{w}/		/n/	/ɲ/	/ŋ/ /ŋ^{w}/		
AFFRICATES		VL			/ts/	/ tʃ/			
		VD			/dz/	/dʒ/			
	Pre-nasal								
FRICATIVES		VL		/f/ /f^{w}/ /f^{j}/	/s/	/ʃ/		/h/	
		VD		/v/	/z/	/ʒ /	/ɣ/		
LATERAL					/l/ /l^{j}/				
GLIDES						/j/			/w/

Table 6 .

3.4 – DEFINITION AND CLASSIFICATION OF PHONEMES

The phonemes are defined with respect to each other. Their classification is done with respect to place and manner of articulation.

3.4.1 – *Definition of consonant phonemes*

By definition here, we mean stating in a precise manner what distinguishes each phoneme from the others in the system. In the definition of the phonemes of Befang, we are going to take into account the place of articulation, the manner of articulation and the voicing. state of the glo

The consonants are defined as follows:

/p/ voiceless bilabial stop.

/b/ voiced bilabial stop.

/b^{w}/ voiced labialised bilabial oral stop.

/b^{j}/ voiced palatalized bilabial stop.

/mb/ pre-nasalized bilabial stop.

/m/ bilabial nasal.

/m^{w}/ labialised bilabial nasal.

/f/ voiceless labio-dental fricative.

/f^{w}/ labialised voiceless labio-dental fricative.

/f^{j}/ palatalized voiceless labio-dental fricative.

/v/ voiced labio-dental fricative.

/t/ voiceless alveolar oral stop.

/t^{j}/ palatalized voiceless alveolar oral stop.

/t^{w}/ labialised voiceless alveolar oral stop.

/d/ voiced alveolar oral stop.

/n/ alveolar nasal.

/nd/ pre-nasalized alveolar stop.

/ndz/ pre-nasalized alveolar affricate.

/ts/ voiceless alveolar affricate.

/dz/ voiced alveolar affricate

/s/ voiceless alveolar fricative.

/z/ voiced alveolar fricative.

/l/ alveolar liquid.

/lʲ/ palatalized alveolar liquid.

/tʃ/ voiceless pre-palatal affricate.

/dʒ / voiced pre-palatal affricate.

/ʃ/ voiceless pre-palatal fricative .

/ʒ/ voiced fricative pre-palatal.

/ɲ/ palatal nasal.

/j/ palatal glide

/k/ voiceless velar stop.

/kʷ/ labialised voiceless velar stop.

/kʲ/ palatalized voiceless velar stop.

/g/ voiced velar stop.

/gʷ/ labialised voiced velar stop.

/gʲ/ palatalized voiced velar stop.

/ŋ/ velar nasal.

/ŋʷ/ labialised velar nasal.

/ɣ/ voiced velar fricative.

/ʔ/ voiceless glottal stop.

/h/ voiceless glottal fricative.

/kp/ voiceless labio-velar stop .

/gb/ voiced labio-velar stop.

/w/ labio-velar glide.

3.4.2 – The Classification of phonemes

This classification follows the place and manner of articulation for each phoneme.

3.4.2.1 – Manner of articulation

Stops : voiceless : p, t, t^w, t^j, k, k^w, k^j, ʔ, kp

voiced : b, b^w, b^j, d, g, g^w, g^j, gb

Affricates: voiceless : ts, tʃ,

voiced : dz, dʒ

Pre-nasals: mb, nd, ndz.

Nasals: m, m^w, n, ŋ, ɲ, $ŋ^w$

Fricatives: voiceless : f, f^j, f^w, s, ʃ, h

voiced : v, ʒ, z, ɣ

Sonorant:

Laterals : l, l^j

Glides : j, w

3.4.2.2 – Place of articulation

Labials : voiceless : p, f, f^w, f^j

: voiced : b, b^w, b^j, v, mb, m, w

Alveolar : voiceless : t, t^w, t^j, s, ts

: voiced : nd, n, ndz, dz, l, l^j, d

Palatals : voiceless : tʃ,ʃ

: voiced : dʒ , ʒ, ɲ, j

Velars : voiceless : k, k^w, k^j,

: voiced : g, g^w, g^j, ɣ, ŋ, $ŋ^w$

Glottals : voiceless : h, ʔ,

Labial – velars : voiceless : kp

: voiced : gb, w

The consonants presented in the table above are those that have a phonemic status in the language. The phonemic analysis of consonant sounds in Befang reveals to us that, out of the 45 phonetic consonants, 44 are phonemes and only two (02) were realized as variants or allophones of the same phoneme. These 44 consonant phonemes include 13 modified consonants, 4 affricates, 3 pre-nasals, and 24 simple consonants with a phonemic status.

CHAPTER FOUR
INTERPRETATION PROBLEM AND WORD STRUCTURE

4.0 – INTRODUCTION

This chapter attempts to seek solutions to some difficulties encountered at the level of interpreting certain vowel and consonant segments, either as single units or a cluster of sounds. We came across such ambiguous or complex segments during the analysis of phonemes in the previous sections. Some of the resolutions reached at here will be seen as a stepping-stone to a deeper study of these segments. Also examined in this chapter is the word structure of Befang, in terms of syllabic and morphological structure.

4.1 – WORD STRUCTURE

In this section, we will be examining the different word patterns in terms of syllable and morpheme structures.

4.1.1 – Syllable and Morpheme structure

Here we will be looking at the syllable and morpheme patterns attested in Befang.

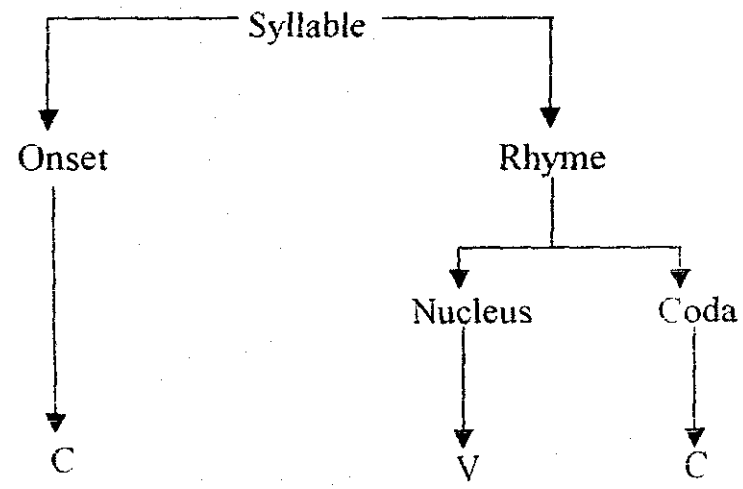
4.1.1.1 – Syllable Structure

According to Katamba Francis (1989:153)

> *"The Syllable is the heart of phonological representation. It is the unit in terms of which phonological systems are organised. It is a purely phonological entity. It cannot be identified with a grammatical or semantic unit....."*

Still in connection to the syllable, Wiesemann, Sadembouo and Tadadjeu (1983:56) have this to say:

- On peut définir la syllable dans une langue par le noyau (qui peut être une voyelle ou un consonne syllablique)
- On peut la définir par le ton qu'elle porte;
- On peut la définir par la durée d'émission de la sequence



The tree above reveals that, a syllable is made up of an onset and a rhyme. Rhyme is further broken down into nucleus and coda. The terminal nodes CVC indicate the general tendency as attested in human languages. That is, the onset is a consonant, nuclei is vowel and coda is a consonant. It should be noted that, the onset as well as the nucleus and coda could dominate more than one sound. All the elements of a syllable are attested in Befang as shown below.

Thus, a syllable in Befang comprises of an onset, nucleus and coda. The nucleus usually bears a tone ((c) v́ (c)). These elements can be properly visualized on a hierarchical tree like the one below.

4.1.1.1.1 – Syllable type

The five syllable types attested in Befang include: V – Syllables, CV – syllables, CV: - syllables, (C) – syllables and CVC – syllables. It is worth noting here that the V – syllable type or pattern is more frequent in nouns, where a vowel stands alone as a syllable at the initial position to mark the morphological class of the noun.

V – Syllables

Examples:

# c-cvc #	/ ú-nə́m /	tongue
# v-cv #	/ á-b^{w}é /	fish
# v-cv.cv #	/ ì-ɲílĭ /	worm
# v-cvc #	/ á-káŋ /	dish

C – Syllables

Example:

# c-cv #	/m̀-nà/	I

CV – Syllables

Examples:

# cv #	/ sə́ /	to slaughter
# cv.cv #	/ ɲɔ́ŋɔ́/	to fight
# cv.cv.cv #	/ kì-káfé /	finger nails
# cv.cvc. #	/ fúgən /	star

CVC – syllables

Examples:

# cvc #	/ tʃə́m /	war
# cv.cvc #	/ má-wún /	milk
# cv.cv.cvc #	/ bə̀-kĭtə̀k /	branch

4.1.1.1.2 – The syllable structure of words in Befang

The examples below illustrate the different syllable patterns, which are attested in words of the language.

(1) Monosyllabic words

The CV structure

/ wù /	person	/ mó /	water
/ tsú /	to pay	/ bí /	goat
/ zú /	to listen	/ sə̌ /	to slice
/ bú /	dog	/ nú /	to smoke/drink
/ té /	to call	/ ví /	to kill

The CV: structure

/ k^{w}á: /	to breathe	/ zé: /	to split
/ mú: /	to swell	/ kó: /	to harvest
/ ʒí: /	God	/ tʃî : /	to through

The CVC structure

/ núm /	to bite	/ nùm /	hot
/ fə̀n /	red	/ fáŋ /	bush
/bóm /	calabash	/gó? /	fowl
/ féf /	to blow	/ mə́k /	to open
/ káŋ /	to fry	/ tsə́ŋ /	to steal
/ tə́n /	strong	/ tsə́k /	to laugh

/ jón/	child	/bón /	children
/ wúŋ /	lazy	/ lə́ŋ /	to see

(2) Disyllabic words

The structure V –CV

/ì-bú /	angle	/ í-ŋé: /	ankle
/ í-vì /	nose	/ ú-tʃî: /	medicine
/ ì-dʒǐ /	a cry	/ í-tsú /	mouths
/á-bá /	bed	/ á-tú /	head
/ ù-lʲə́/	bridge	/ ú-kó /	ladder

The CVC.CV structure

/dʒî ŋ-ĭkʷí /	anus
/ɲɔ̀m-tsɔ́/	monkey

The V.CVC structure

/ á-nə́k /	smoke	/ í-dzɔ́ŋ /	hunger
/ ú-kʷɔ́ŋ /	pestle	/ á-gúŋ /	seed
/ á-gə́p /	hoe	/í-búm /	egg
/ á-ɲím /	lap	/ ì-fᵛá? /	work
/ í-tə́m /	heart	/ ú-sɔ̂ŋ /	river
/ ú-lə́ŋ /	bamboo	/ ì-ndə́p /	house

The CV.CV structure

/bùfé /	to ask	/mátʷá /	wood ash
/ jĩʃə́/	to sweep	/dáŋé /	to cross
/dzùwá/	snake	/ kʲĩbé /	to have
/ zɔ́fé /	to yawn	/ màkʲə́/	corn beer

The CV. CVC structure

/fú-dzùm /	chain	/fɔ́-sáʔ /	needle
/ wá-tùm/	stranger	/məlíŋ /	tears
/ wú-nɔ́m/	husband	/ wú-fən/	whiteman
/ bá-ndɔ́ŋ/	horns	/kí-bʷèn/	liver
/ki-táŋ/	moon	/bɛ́-tɔ̀l/	lice

The C.CV structure

/m̀-né/	you (pl)	/m̀-nà/	I

(3) Trisyllabic word structure

The CV.CV.CV. structure

/kì-lésə́/	charcoal	/fú-tsɔ́mɔ́/	pipe
/kì-káʔi/	ribs	/wú-tsɔ́ŋɔ́/	thief
/fú-ɲĩŋú/	cameleon	/kí-lʲéŋé/	palm frond
/bá-ŋònó/	intestines	/bə̀-fúfù/	wizards
/kí-jèbé/	wings	/mə̀ŋə́lə̀/	groundnuts

The V.CV.CV structure

/ú-bɔ́sĩ/	dust	/ í-ɣəmə́/	crab
/ú-fʲáŋé/	food	/í-gámá/	plantain
/ú-pətə́/	mud	/ í -ádzáŋé/	cricket
/ì-mbənə́/	fence	/á-díbì/	door

The CV.CV.CVC structure

/bə́-kĩtʲəm/	branches	/kákùkʷét/	toad

The structure V.CV.CVC

/á-kàŋɔ̀m/ horse /ákàŋúm̀/ pig

/á-tʃŭgús/ gun powder

4.1.1.2 – Morpheme Structure

Morphemes are minimal syntactic units in terms of which words and ultimately sentences are built up whether lexically or grammatically.

A morpheme is generally defined as a minimal distinctive unit that has meaning.

According to Sanford (1973:40)

> *"The component parts of words are morphemes (e.g box(es), stem(s), prefix(es), suffix(es), plural endings, past tense endings)."*

John Lyons (1984) refers to the morpheme as "minimal forms which can either be free or bound"

It is important to note that the morpheme and the syllable share some similarity in that, just like the syllable, it is made up of a sound or a sequence of sounds, some of which can be assigned full lexical meanings.

We will now examine the distribution of consonant and vowel phonemes in the various morpheme patterns or structures, taking into consideration only roots and affixes. The morpheme patterns which have so far been identified in the language include:

V

CV

CVC

CV.CVC

The V-morpheme pattern comprises of prefixes.

Prefixes in most cases, mark the singular and or plural form of nouns. The V-prefix in this language include, i, a, and u. These prefixes also signal the noun classes. The CV structure constitutes mostly the prefixes ki-, ka-, wu-, fu-, ba-, and bə-, which usually function in plural and singular formation. The rest of the patterns often appear in roots (verbs, nouns and adjectives). Let us consider the data below in Befang.

Word		Gloss	Prefix/ Root structure
Singular	Plural		
á-kúf	ú-kúf	Bone(s)	V.CVC
í-gáŋ	á-gáŋ	Grass	V.CVC
ú-vʲá	í-vʲá	Palm tree(s)	V.CV
í-ví	á-ví	Nose(s)	V.CV
bə̀-kə́wú	bə́-kə́wú	Devil(s)	CV.CVCV
wú-tsə̀ŋ́	bə̌-bátsə̀ŋ́	Thief(ves)	CV.CVCV
wú-fúf	bə̌-fúfu	Wizard(s)	CV.CVCV
kí-táŋ	ú-táŋ	Month(s)	CV.CVC
ndə̀ŋ	bà-ndə̀ŋ	Potato(es)	CV.CVC
í-tʃə́n	kí-tʃə́n	Leaf(ves)	CV.CVC
ì-ndú	bá-ndú	Dress(es)	CV.CV

Table 7

From the data above, column 1, presents the singular form of nouns, column 2, shows the plural forms, columns 3 and 4 show the English gloss, prefix and root patterns of the nouns respectively. We also notice from the data that the prefix beginning with ki- and ba- can mark both the plural and singular, whereas the wu- and fu- mark only singulars. The prefix and the root morphemes often go together.

The following cases also enable us to discover the nature of morphemes in Befang.

Compounding

(a)	dʒǐŋ	hole
(b)	dʒǐŋ-ǐk^{w}í	anus or buttocks
(c)	úgùs	fire
(d)	úgùs-wǐbàhà	flame
(e)	ɲàm	animal
(f)	ɲàm-àtsə́	monkey or animal of the tree

From the data above, we notice that free or independent morphemes combine to form words. "Anus" above is clearly a combination of "hole" and "buttocks", while "monkey" is a combination of "animal" and "tree" respectively.

4.2 – PHONOLOGICAL PROCESSES IN BEFANG

A phonological process occurs when morphemes or syllables combine to form new words, and these segments are made to undergo certain changes in the course of this process. Some of such changes that are manifested in the Befang language include: devocalisation and devoicing.

4.2.1 – Devocalization

This process occurs where we have vowels of different qualities or adjacent non –identical vowels in a word, the first vowel devocalizes into a semi-vowel (glide).

In rapid speech the high vowels that is i and u, devocalize into semi-vowels [j] and [w] respectively. This is due to the fact that the language

does not allow vowel clusters. Consider the data below showing the underlying and phonenetic representations.

/gíə́/	⟶	[g^{j}ɔ́]	to wear
/fié/	⟶	[f^{j}é]	here
/bíá/	⟶	[b^{j}á]	to build
/màkíə́/	⟶	[màk^{j}ɔ́]	cornbeer
/kíə́n/	⟶	[k^{j}ə́n]	to stay
/kíél/	⟶	[k^{j}él]	country
/á-kúéŋ/	⟶	[á-k^{w}éŋ]	lizard
/ú-kúɔ́n/	⟶	[ú-k^{w}ɔ́n]	tail
/mùá/	⟶	[m^{w}ă]	to shave
/ù-mùìŋ/	⟶	[ù-^{m}wìŋ]	neck
/á-búé/	⟶	[á-b^{w}é]	fish
/kúáá/	⟶	[kú^{w}áá]	to breath
/mátúá/	⟶	[mát^{w}á]	wood ash

The following phonological rules can be proposed to relate the phonological and phonetic representations above.

(i) i ⟶ j /-v

(i) u ⟶ w /-w

The rule state that the high vowels i and u are devocalized when they precede other vowels in words of the language.

4.2.2 – Devoicing

This process takes place when a voiced consonant loses its voiced qualities to neighbouring voiceless sound. This process is phonetically marked by a zero under the voiceless sound. In Befang, this process is evident where the voiced bilabial oral stop [b]becomes [p] at word final

position. It is postulated that, during the emission of the words below, we hear, which is pronounced in slow speech and in rapid speech, we perceive p. But the native speakers know the particular utterance without any difficulty.

Let us examine the data below.

/jéb/ ⟶ [jép]	to tear
/ɭ̈əb/ ⟶ [ɭ̈əp]	to say
/záb/ ⟶ [záp]	to weed
/ì-ndə́b/ ⟶ [ì-ndə́p]	house
/á-tʲə́b/ ⟶ [á-tʲə́p]	hut

We can establish the following rule from the data above, to relate the phonological and phonetic representations.

b ⟶ p /-#

This implies that, the voiced bilabial oral stop /b/ is realized as /p/ when it occurs at word final position. The data also reveals that, the segments in the first column are considered to be the underlying representations. In slow and deliberate speech, we perceive b, instead of p.

4.3 – CONSONANTS AND VOWELS

Under this section, we will examine complex consonants in the language.

4.3.1 – Consonants

4.3.1.1 - Affricates

These are consonants produced with the combination of stops and fricatives. They can be seen in the data below.

(a) tsú pay

(b) dzàmà greet

(c) dʒîŋ pit/hole

(d) wùtsɔ́ŋɔ́ thief

(e) tʃɔ́m war

(f) tʃîbé teach

The sounds [ts, dz, tʃ, dʒ] contained in the above data could still be interpreted as a stop and fricative sequence, but we notice that these sounds usually occupy the syllable onset position. We can thus conclude that the affricates are considered as single sound units and not a cluster of consonants.

4.3.1.2 – Pre-nasalized sounds

In most African languages, it sometimes happens that an oral sound is emitted at the same time with a nasal sound during speech production. As far as such consonant sounds are concerned, we deem it necessary to determine whether they are single (prenasals) or separate sound units. Such cases vary from one language to another. This is so because one language may either consider them as cases of homorganic nasalization or consonant prenasalization. In the case where sound sequences are considered as single sounds, the preceding sound is usually non syllabic, thus it bears no tone and vice versa.

In Befang, sequences like [mb, nd and ndz] are interpreted as single sound units. Let us examine the data below:

(a) [ì-mbàʔ] sky

(b) [ì-ndzúm] wind

(c) [ì-ndɔ́ŋ] horn

(d) [á-ndé] who

(e) [ndòŋ] potato

With a close examination of the above data, the possibility of considering the above sounds as single sound units maybe due to the fact that [m and n] are phonemes in language. This may also be as a result of the fact that the language does not allow any CC sequence, where C stands for consonant. Finally, this stems from the fact that, the prenasalized sounds always occur at syllable onset. The dashes indicate syllable boundary. We also observe from the data that prenasalized consonants behave as a unit even when they occur in word medial position. See the words ~~in data~~ above.

However, cases like ones below have been considered as a CC sequence.

(1) m̀ – nà I

(2) m̀ – nà You (2nd person pl.)

The words in (1 and 2) have been considered as containing the CC sequence because the prenasal which bears a tone constitutes an independent syllable.

The above forms may be considered as homorganic in the sense that, whether they are syllabic or not, they agree with the following consonant in place of articulation.

4. 3.1.3 – Consonant modification

In the course of our phonemic analysis, we came across a number of consonants, which were open to ambiguous interpretations. These consonants include the modified consonant segments. The consonants that have undergone a process of modification include those that precede the glides [^{w}] and [^{j}]. Such sounds in Befang will be interpreted as single sounds and not a cluster of sounds.

This is so because, the structure of the language does not permit any CC sequence within the same syllable, where C_1, is of a different quality from C_2. Therefore consonants which precede the glides [^{w}] or [^{j}], will be considered simply as consonant modification – labialization, or palatalization. The modified consonants in the Befang language have a phonemic status in that, they contrast in minimal and near minimal pairs with their simple counterparts.

The glides [^{w}] and [^{j}], will be considered as consonants when they occur between two vowels. For the gliding process, we can state the following rule:

(1) / w / ⟶ [c] / v – v

(2) / j / ⟶ [c] / v – v

4.3.2 – Vowels

As far as the vowel sounds are concerned, the problem of interpretation was with the seemingly existence of long vowels and the status to be given to them.

4.3.2.1 – Long Vowels

During the analysis of phonemes in chapter two, we noticed that some vowels have been modified through the process of lengthening. The

problem encountered here was whether to interpret such vowels as a single vowel or a sequence of vowels. The following vowels have undergone such modification: e, i, a, ə, u, and o. The modified vowels will be considered as single sound segments and not a sequence of vowels. The reason for this interpretation is due to the fact that, the Befang language does not permit any vv sequence. Thus, the words below will have the following syllable patterns:

[kí:]	to know	cv
[mù:]	to mourn	cv
[ù-nă:n]	floor	v.cvc
[ì-ŋé:]	ankle	v.cv

As we mentioned above, the language does not allow any vv sequence as independent units standing alone, one functioning as a light syllable especially at word medial and final position. If this could be the case, we would say that, the syllable patterns of the words above will be; cv.v, c.cv.vc, v.cv.v, where v_2 in the first word for instance, is a syllable on its own. However, this is not the case. Moreover, the long vowels bear an identical tone in the language.

Vowel length in Befang is phonemic, considering the fact that, long vowels do contrast in a number of minimal and near minimal pairs, with their short counterparts which bring about a difference in meaning. See section 2.3.4.1, for illustration.

CHAPTER FIVE

TONES

5.0 - INTRODUCTION

This chapter intends to examine the tonal system of the Befang language. It will be sub-divided into six sections. The first section studies tone as a phenomenon in African languages. The second section provides an inventory of the tones in Befang. The third section examines contrastive tones on nouns and verbs in the language. The fourth section deals with grammatical and phonological tone processes in Befang. The fifth section discusses the Befang tonemes and the sixth section gives a phonemic transcription of all the phonemic sounds and tonemes of the language.

5.1 – TONE LANGUAGE

Befang is a tone language. A tone language is one that uses tones to distinguish meaning in words.

A tone may therefore be defined as a prosodic feature that represents the relative but significant height of the voice during the production of a syllable. According to Welmers (1973), a tone language is one in which both pitch and segmental phonemes enter into the composition of at least some morphemes. Still in relation to tone language, Pike (1947 : 3) says "a tone language is that which has lexically significant, contrastive but relative pitch on each syllable". The significance of the lexicality of pitch refers to its capacity to distinguish between meaning of words. Therefore, any change in syllable pitch, gives rise to a change in meaning of this syllable or word. Bitjaa Kody (class lecture : 2000) in like manner says in tone languages, tones have the same distinctive value as consonants and vowels. Donald A Burquest (1993:38) has this to say : "The phenomenon most commonly having its domain as the syllable is tone."

Thus, he considers tone languages to be those that make use of differences in pitch to differentiate lexical items. Befang being a Bantu and an African language, manifests this phenomenon.

The Befang language has four basic tones. Two level tones; high and low, abbreviated (H, L), and two contour tones which are the falling tone (◌̂) or (HL) and the rising tone (◌̌) or (LH). The contour tones in this language are derived from floating tones docking on the adjacent tone bearing unit (TBU). These floating tones result from vowel deletion or from vowels which devocalise as glides. Before we get into the proper examination of the tone system of Befang, it will be worth noting that, this language has some words, which are tonologically identical but differ in meaning. In such cases, it is the context that determines the word the speaker is actually referring to. Examples of such words include:

(1)	bʲá	to plait	bʲá	to build
	ú-fə́f	cold	ú-fə́f	air
	táŋé	to think	táŋé	to remember
	útʃĭ	medicine	útʃĭ	leaf
	tʲá	to kick	tʲá	to sting
	kívíŋ	hair	kívíŋ	moustache
	tsìwí	day	tsìwí	sun
	dzó	to join	dzó	to add
	ízə́m	night	ízə́m	darkness
	zúk	to warm	zúk	to boil
	ízílì	shadow	ízílì	picture
	nú	to drink	nú	to smoke
	úgúl	body	úgúl	skin

5.2 – PHONETIC INVENTORY OF TONES

As mentioned earlier in section (5.1), the Befang language has two sets of tones. They are the level tones and contour tones.

5.2.1 – Level Tones

These are tones produced when the musical height of the voice does not vary during the production or emission of a syllable. There are two level tones in Befang : High (´) and Low (`).

The High Tone (H)

The high tone is marked with an acute accent [´].

Examples : [mó] water

[màwúl] oil

[úlə́ŋ] bamboo

[í-ndzómó] frog

The Low Tone (L)

It is marked by a grave accent [`] .

Examples : [tàn] strong

[màmà] touch

[nùm] hot

[fànà] close

Contour Tones

It is the tone which the musical height of the voice varies during its emission on a syllable.

The Rising Tone (LH)

It is marked as a combination of Low-High [ˇ].

Examples : [dʒǐŋ] hole

[dzə̌] splash

[bə̌] people

[fõ] to lend

The falling tone (HL)

It is marked with a circumflex accent [ˆ].

Examples : [m^{w} â] shave

[tʃî] throw

[dô] escape

[dzû] climb

5.3 – PHONIC TONE CHART

´	`
ˆ	ˇ

5.4 – CONTRASTIVE TONES IN BEFANG

These are tones that are capable of changing the meaning in words. Pike (1967:3) says :

> *By contrast we mean that one thing is different from another thing within a functional system. The contrastive lexical units in tonal analysis are tonemes. In tone languages the pitch contrasts or significant*

pitch differences entails one pitch being kept different or separate from another pitch in the immediate context."

Contrastive tones in Befang are observed at the level of nouns, verbs and others. grammatical categories.

The High Tone or H or / ˊ /

Its tonemic status is revealed in the following contrasts:

(1) H/L :	[ísá?]	hook	[ìsà?]	case
	[nómó]	quench	[nòmò]	put
	[ìmbá]	friend	[ìmbà]	cloud
	[núm]	bite	[nùm]	hot
	[kóm]	tap	[kòm]	gong
	[kám]	scratch	[kàm]	carve
	[sáŋ]	spread	[sàŋ]	select

The Low Tone or L or / ˋ /

It acquires its pertinence through the following contrasts:

(2) L/H as seen in H/L

We realized from the contrastive analysis above that all the two level tones in Befang are distinctive /ˊ/, /ˋ/.

5.5 – CONTOUR TONES

These tones are common in African languages only at the surface level. At the deeper level, they are realized due to phonological processes, and are usually considered as a combination of Low and High.

Looking at palatalization and labialization (glide formation), when gliding takes place, the floating tone docks on the following Tone Bearing Unit (TBU), therefore forming a contour tone on a single vowel. See the illustrations below:

(a) mùá	⟹	m^{w} ă	to share
(b) fùá?	⟹	f^{w} ă?	to cure
(c) ǐkʊ̀ʊ́?	⟹	ǐk^{w}ŏ?	four
(d) ìkùáŋ á	⟹	ìk^{w}ă ŋ á	to snore
(e) ǐtíən	⟹	ǐt^{j}ên	five
(f) gíəpə́	⟹	g^{j}êpə́	to separate
(g) tíàwá	⟹	t^{j}âwá	to curse
(h) dʒíĩŋ	⟹	dʒîŋ	hole

Long vowels as illustrated below:

(1) únə̀ən	únê:n	floor
(2) mùú	mŭ:	to mourn
(3) kòó	kŏ:	to harvest
(4) tʃĩĩ	tʃî:	to throw
(5) dʒíĩŋ	dʒî:ŋ	hole
(6) bə̀ə́	bə̆:	to splash
(7) dzə̀ə́	dzə̆:	to splash
(8) nàá	nă:	to announce

The Befang language does not allow vowel clusters, meaning that a cvv sequence is not allowed. Examining the data above, we realize that where two vowels occur consecutively, the first vowel deletes, thereby allowing

its tone to dock on the following TBU, therefore forming a contour tone. There are cases in the language where contour tones contrast with level tones.

See examples below:

F/H :	[únân]	floor	[úɲɟən]	dirt
	[g^{w}â]	to grind	[g^{w}á]	ground
	[m^{w}â]	to share	[m^{w}á]	to live
R/L:	[nə̌]	to hide	[nə̀]	with
	[kə̌m]	to share	[kə̀m]	to carve
	[dzə̌]	to splash	[dzə́]	elephant

Though the contour tones contrast in identical environments as shown above, they will not be considered as tonemes in the language. This can be explained by the fact that, they are not underlying and are merely a combination of the Low and High tone.

5.5.1 – Tone reinforcement

The glide formation process above should not be confused with cases of vowels that bear level tones after the process of gliding. This reinforcement process can be illustrated in the data below:

(a) áb^{w}ɔ́n ⟶ ábúɔ́n lies

(b) kíb^{w}ɔ̀n ⟶ kíbúɔ́n liver

(c) úg^{w}é ⟶ úgúé arm

(d) m^{w}á ⟶ múá to live

(e) g^{w}ɔ́ ⟶ gúɔ́ to fall

(f) t^{l}á ⟶ tíá to sting

(g) ùv^{l}á ⟹ ùvíá palm tree

(h) ùt^{l}ɔ́ ⟹ ùtíɔ́ latrine

This can be explained by the fact that, when you have two vowels with the same tones, that is either Low Low or High High, and gliding takes place, on the first vowel, the floating high or low tone, docks on the following T.B.U. When this happens, the result is a level tone and not a contour tone.

That is Low Low (LL) ⟹ Low (L) and High High ⟹ High (H)

This means that, H + H gives a H tone and L + L yields to a low tone.

5.6 – GRAMMATICAL TONES

In the previous sections we have been discussing how a change from one tone to another leads to a complete change in meaning. These tones which are capable of bringing about a change in meaning between two lexical items are referred to as lexical tones.

Sometimes we equally notice that tonal changes on verbs do not cause a change in meaning, but rather cause a change in the grammatical conjugation of the verb. Such tones that play a grammatical function are called grammatical tones. These tones are capable of changing the form of the verb.

This situation can be illustrated with the use of two verbs.

(a) ɲû "to push"

(b) fɛ̀nɛ́ɛ́ "to sell"

The verbs above are in their infinitive forms. The monosyllabic verbs in the infinitive form bear a high-Low tone, which is realized as a contour and as two level tones on disyllabic verbs. In the examples below

only the first, second and third person singular will be used for illustration because the verbs do not change their forms in the plural. A new morpheme is rather introduced to mark the verb tense in the past and the future.

The verb "to push" can be conjugated as follows in the present tense.

5.6.1 – Tone Lowering

(a) m̀nà ø ɲù áté "I am pushing stones"
I pr push stones

(b) ó ø ɲù áté "You are pushing stones"
You pr push stones

(c) ò ø ɲù áté "He/she is pushing stones"
He/she pr push stones

The verb "to push" in the data above, changes from high-low contour in the infinitive to "low tone in the present tense. Pr above refers to the present tense marker.

Likewise, the verb "to sell" changes as shown below:

5.6.2 – Tone Simplification

(a) m̀nɔ̀ ø fɛ̀nè mɔ̀wúl "I am selling oil"
I am Pr sell oil

(b) ó ø fɛ̀nè mɔ̀wúl "You are selling oil"
You Pr sell oil

(c) ò ø fɛ̀nɛ̀ màwúl "He/she are selling oil"

He/she Pr sell oil

In the data above, we notice that in the present tense (Pr) the verb "to sell" equally changes from the low-high infinitive tone to a low low tone. These tonal changes on the verbs can be said to result from the present tense marker, which we posit here to be a low floating tone (L) on the first syllable of the verb. This Pr low floating tone docks on monosyllabic verbs like push above following the docking process below.

$$L_{\varnothing} + H\ L \Longrightarrow L$$

The docking process above states that a low floating tone plus a falling tone simply gives a low tone. The docking process is almost similar with disyllabic verbs, as seen above.

$$L_{\varnothing} + H\ \ L \Longrightarrow L\ L$$

The docking process above stipulates that, a floating low tone plus a low plus a high tone on disyllabic verbs yields a low-low scheme on the verb.

We can also observe this docking process for tones that are low in the infinitive as below.

(a) ʒì to come

(b) nàmà to put

These verbs can be conjugated respectively as follows.

5.6.3 – Tone Lowering

(a) m̀nà ø ʒǐ kándàp "I am coming to the house"

I - Pr come to the house.

(b) ó ø ʒǐ kándàp "You are coming to the house"

You Pr come to the house

(c) ò ø ʒǐ kándàp "He/she is coming to the house"

He/she Pr come to the house

We notice from the above examples that the docking process of the floating Pr low takes place as seen below:

$L_{\downarrow} + H \longrightarrow L$

This implies that, the floating low plus the lexical low gives a low tone.

Tone lowering also takes place with disyllabic verbs as shown below:

(a) m̀nà ø nàmà mó "I am putting water"

I Pr put water

(b) ó ø nàmà mó "You are putting water"

You Pr put water

(c) ò ø nàmà mó "I am putting water"

He/she Pr put water

From the data above, we discover that, the result of the docking process on disyllabic low tone verbs is still a low as shown below:

L + L – L ⟹ L L

This means that, a floating low plus a low and plus a low gives a low-low on disyllabic verbs.

The tone of the verb "to push" in the past tense becomes high as seen below.

5.6.4 – Tone Raising

(a) má á ɲù áté "I pushed stones"

I - pt - push - stones.

(b) ò á ɲù áté "You pushed stones"

You - pt - push - stones

(c) ò á ɲù áté "He/she pushed stones"

He/she - pt - push - stones

Here we observe that, the verb "to push" surfaces with a high tone in the past tense. The verb "to sell" equally surfaces with a high-high tone as seen below.

(a) m á á fɛ́nɛ́ màwúl "I sold the oil"

I - pt - sell - oil

(b) ò má fɛ́nɛ́ màwúl "You sold the oil"

You - pt - sell - oil

(c) ò má fɛ́nɛ́ màwúl "He/she sold the oil"

He/she - pt - sell - oil

We notice that, monosyllabic and disyllabic verbs surface as high or high-high, in the past tense. This situation parallels the earlier Pr situation where all the verbs were realized as low or low-low. We can establish the following tonal phenomena processes:

(1) Verb becomes low in the present tense

(2) Verb becomes high in the past tense.

These processes seem to be correct because it is as if tones are always ~~replaced~~ on the verb be it monosyllabic or disyllabic, in each tense. Let us examine the future tense below, to verify whether tone replacement is common for all tenses.

(a) m̀nà é ɲù átɛ́ "I will push stones".

I - F.t - push - stones

(b) à mé ɲù átɛ́ "You will push stones".

You - F.t - push - stones

(c) à mé ɲù átɛ́ "He/she will push stones".

He/she - F.t - push - stones

In the data above, we observe that the verb, as "to push" features with a low tone, so too does the verb "to put" feature with a low tone as below:

(a) m̀nà é nàmà mó "I will put the water".

I - F.T - put - water

(b) à mé ɔmɔ́ mó "You will put the water".

You - F.T - put - water

(c) ò mé nɔmɔ́ mó "He/she will put the water".

He/she - F.T - put - water

FT, in the data above stands for the Future tense marker. We equally realize that in the future, verbs bear a low tone despite the syllable structure.

We observed in this language that, verbs could alternate from low-high to high-low, without any change in the meaning of the word. Such tones that only modify the tonal pattern of the word without changing its meaning are called grammatical tones.

The tone of the future marker is always high on the first syllable and low on the second syllable. We also notice that, the tone of the verb does not change or is not influenced by the tense marker. It only modifies the meaning of the word.

5.7 – DEFINITION AND CLASSIFICATION OF TONEMES

A toneme is a tone, which has a distinctive function in a language. It is capable of distinguishing between, lexical items. From our discussion above, we have established that Befang has two tonemes.

5.7.1 – Definition of tonemes

To define a toneme means determining its pertinent features which distinguish it from other tonemes. The two tonemes in Befang will be defined as follow:

/ ˊ / high is compared to / ˋ /

/ ˋ / low is compared to / ˊ /

5.72- Classification of tonemes

From the above definition, we can classify the tonemes as seen in the table below.

Level	H	/ˊ/
	L	/ˋ/

In our analysis in this chapter, we observed that the Befang language has two tonemes; two level tones: High and Low.

5.8 – PHONEMIC TRANSCRIPTION

Our main concern in this section will be to illustrate the phonemes of Befang, through the following phonemic transcription.

5.8.1- Phonemic Transcription of Tones

[ˊ] ⟹ /ˊ/ [fáŋ] ⟹ /fáŋ/ "bush"

[ˋ] ⟹ /ˋ/ [nàmà] ⟹ / nàmà / "to put"

[nùm] ⟹ / nùm/ "hot"

5.8.2 – Phonemic transcription of (vowels and consonants) words.

The vowel phonemes which we established in chapter two, will be illustrated in the transcription below:

[i]	⟹	/i/ [fi]	⟹	/fi /	to plant
[i:]	⟹	/i:/ [ʒí:]	⟹	/ʒí:/	God
[e]	⟹	/e/ [ité]	⟹	/ité/	stone
[e:]	⟹	/e:/ [lě:]	⟹	/lě:/	stone

[ɛ] ⟹	/ɛ/	[fɛ̃fɛ̃] ⟹	/fɛ̃fɛ̃/	to sell
[ə] ⟹	/ə/	[sə̀ká] ⟹	/sə̀ká/	stone
[ə:] ⟹	/ə:/	[únə̂:n] ⟹	/únə̂:n/	floor
[a] ⟹	/a/	[káŋ] ⟹	/káŋ/	to fry
[a:] ⟹	/a:/	[k^{w}á:] ⟹	/k^{w}á:/	to breathe
[u] ⟹	/u/	[túm] ⟹	/túm/	to fry
[u:] ⟹	/u:/	[úwú:] ⟹	/úwú:/	death
[o] ⟹	/o/	[fõ] ⟹	/fõ/	to lend
[o:] ⟹	/o:/	[dó] ⟹	/dó/	to escape
[ɔ] ⟹	/ɔ/	[mɔ̀mɔ́] ⟹	/ mɔ̀mɔ́ /	to touch

[p] ⟹	/p/	[záp] ⟹	/ záp/	to weed
[b] ⟹	/b/	[bóm] ⟹	/bóm/	to calabash
[b^{w}] ⟹	/b^{w}/	[áb^{w}é] ⟹	/áb^{w}é /	fish
[b^{j}] ⟹	/b^{j}/	[b^{j} á] ⟹	/ b^{j} á/	to build
[m] ⟹	/m/	[məlíŋ] ⟹	/məlíŋ/	tears
[m^{w}] ⟹	/m^{w}/	[m^{w}á] ⟹	/ m^{w}á/	to live
[mb] ⟹	/mb/	[ìmbók] ⟹	/ ìmbók/	hawk
[f] ⟹	/f/	[féf] ⟹	/ féf/	to blow
[f^{w}] ⟹	/f^{w}/	[f^{w} á?] ⟹	/ f^{w}á?/	to cure
[f^{j}] ⟹	/f^{j}/	[úf^{w} áɲé] ⟹	/úf^{w} áɲé/	food
[v] ⟹	/v/	[ìví] ⟹	/ìví/	nose
[s] ⟹	/s/	[ìsóŋ] ⟹	/ìsóŋ /	tooth
[z] ⟹	/z/	[zón] ⟹	/zón/	tooth
[l] ⟹	/l/	[úlóŋ] ⟹	/ úlóŋ/	tooth
[l^{j}] ⟹	/ l^{j} /	[l^{j}ă] ⟹	/ l^{j}ă /	tooth

[ts] ⟹	/ts/	[tsós] ⟹	/ tsós /	to itch
[dz] ⟹	/dz/	[dzíŋ í] ⟹	/ dzíŋ í/	to add
[nd] ⟹	/nd/	[ndə̀m] ⟹	/ ndə̀m/	to many
[ndz] ⟹	/ndz/	[ì-ndzómó] ⟹	/ ì-ndzómó/	frog
[t] ⟹	/t/	[tímí] ⟹	/tímí/	to stand
[t^{w}] ⟹	/t^{w}/	[át^{w} i:] ⟹	/át^{w} i:/	ear
[t^{j}] ⟹	/t^{j}/	[át^{j}ə́p] ⟹	/át^{j}ə́p/	hut
[d] ⟹	/d/	[dáŋ é] ⟹	/dáŋ é/	to cross
[n] ⟹	/n/	[núm] ⟹	/ núm/	to bite
[tʃ] ⟹	/tʃ/	[tʃìbé] ⟹	/ tʃìbé /	to teach
[dʒ] ⟹	/dʒ /	[dʒî ŋ] ⟹	/ dʒî ŋ/	hole
[ʃ] ⟹	/ʃ/	[díʃì] ⟹	/díʃì /	black
[ʒ] ⟹	/ʒ/	[nézì] ⟹	/nézì/	mother
[ɲ] ⟹	/ɲ/	[ɲə́n] ⟹	/ ɲə́n /	today
[k] ⟹	/k/	[kífóm] ⟹	/ kífǒm /	marrow
[k^{w}] ⟹	/k^{w}/	[ìk^{w}áŋ á] ⟹	/ìk^{w}áŋ á/	snore
[k^{j}] ⟹	/k^{j}/	[k^{j}ə̃m] ⟹	/ k^{j}ə̃m /	to squeeze
[g] ⟹	/g/	[gə̀:] ⟹	/ gə̀:/	to walk
[g^{w}] ⟹	/g^{w}/	[g^{w}ă] ⟹	/g^{w}ă /	to walk
[g^{j}] ⟹	/g^{j}/	[g^{j}é] ⟹	/g^{j}é /	to wear
[ŋ] ⟹	/ŋ/	[lə̃ŋ] ⟹	/ lə̃ŋ/	to see
[ŋ^{w}] ⟹	/ŋ^{w}/	[úŋ^{w}á?é] ⟹	/úŋ^{w}á?é/	book
[ɣ] ⟹	/ ɣ/	[ɣá] ⟹	/ ɣá /	to give
[ʔ] ⟹	/ ʔ /	[ìtó?] ⟹	/ ìtó?/	palace
[h] ⟹	/h/	[ú-wúhə́] ⟹	/ ú-wúhə̃́/	yesterday

[kp] ⟹	/kp/	[kpáŋ]	⟹	/ kpáŋ/	staunt
[gb] ⟹	/gb/	[ú-gbə́]	⟹	/ ú-gbə́/	staunt
[j] ⟹	/j/	[jódàn]	⟹	/ jóɗə̀n/	young
[w] ⟹	/w/	[wùjí]	⟹	/ wùjí /	woman

CHAPTER SIX

PROPOSED ALPHABET AND ORTHOGRAPHY

6.0 INTRODUCTION

In this chapter, we intend to propose an alphabet and a number of rules for the Orthography of Befang, thereby laying the groundwork for the development and subsequent standardization of the language. The proposed alphabet and Orthographic principles will take into consideration the symbols to be postulated as letters of the alphabet to facilitate the teaching, reading and writing of the language. It is worth mentioning here that, these proposals are tentative because our work is elementary in nature. The work still requires more modifications by the Befang language committee and future researchers, since it has not been tested in a real classroom situation. The chapter also comprises a graphic representation of all the phonemes with an illustrative text to show the graphemes and orthographic principles at work.

6.1 – THE ALPHABET OF BEFANG

This section is sub-divided into three parts. The first elaborates all the distinctive consonant sounds, the second part elaborates the vowel graphemes, that is, the graphic representation of all the phonemes in Befang. Our inspiration is drawn from the General Alphabet of Cameroonian Languages (GACL), for the choice of the graphemes. The next sub section presents the tonemes. To choose the graphemes, we took into consideration the phonological analysis in the previous chapters, and the simplicity to write them.

6.1.1 – The consonant Graphemes

A grapheme can be one, two, three or more letters, which represent a single sound as part of the alphabet of a language. The following consonant graphemes have been proposed for Befang:

mb, b, b^w, b^y, c, d, dz, f, f^j, f^w, g, g^y, g^w, h, j, k, ', k^w, k^j, kp, l, l^j,

m, m^w, nd, dz, ny, ŋ, $ŋ^w$, p, s, sh, ts, t, t^w, t^y, v, w, gh, zh, z

The following I.P.A. symbols in the alphabet have been replaced with more easier ones from Tadadjeu and Sadembouo (1984).

IPA	GACL
ɲ	n y
tʃ	c
dʒ	j
j	y
ʒ	zh
ɣ	gh
ʔ	'
ʃ	sh

To conclude this section on the consonant graphemes, we will present the 44 consonant graphemes and illustrative words as below.

Phoneme symbol	Proposed grapheme	Illustrative word	Gloss
/mb/ [mb]	"mb"	ámbísh	"us"
/b/ [b]	"b"	bétàl	lice
/b^{w}/ [b^{w}]	"bw"	kĭbwə́n	liver
/b^{j}/ [b^{j}]	"by"	byá	build
/c/ [c]	"c"	cĭ:	throw
/d/ [d]	"d"	dáŋé	to cross
/f/ [f]	"f"	fɔl	borrow
/f^{w}/ [f^{w}]	"fw"	fwé	find
/f^{j}/ [f^{j}]	"fy"	úfyányé	food
/g/ [g]	"g"	gó'	fowl
/g^{w}/ [g^{w}]	"gw"	gwɔ́	fall
/g^{j}/ [g^{j}]	"gy"	gyé	wear
/ ʔ / [ʔ]	" ' "	íbó'	pumpkin
/h/ [h]	"h"	álú:hù	poison
/dʒ/ [dʒ]	"j"	jə́m	axe
/k/ [k]	"k"	úkáŋ	disk
/k^{w}/ [k^{w}]	"kw"	úkwə́ŋ	pestle
/k^{j}/ [k^{j}]	"ky"	kyél	village
/kp/ [kp]	"kp"	kpə́:	drunk
/l/ [l]	"l"	láŋ	see
/l^{j}/ [l^{j}]	"ly"	lyá	like
/m/ [m]	"m"	máwɔ́n	milk
/m^{w}/ [m^{w}]	"mw"	mwán	shine
/nd/ [nd]	"nd"	ìndú	clothes

/ndz/ [ndz]	"ndz"	ǐndzúwɔ́	cloud
/ɲ / [ɲ]	"ny"	nyɛ́m	cook
/n/ [n]	"n"	náy	how
/ŋ/ [ŋ]	"ŋ"	útòŋ ó	beeds
/ŋ^{w}/ [ŋ^{w}]	"ŋ w"	ìŋ w é	hill
/p/ [p]	"p"	lə́p	speak
/s/ [s]	"s"	tsós	itches
/ʃ/ [ʃ]	"sh"	yǐshə́	sweep
/ts/ [ts]	"ts"	tsúk	pound
/t/ [t]	"t"	tə̀n	strong
/t^{w}/ [t^{w}]	"tw"	mátwá	ash
/t^{j}/ [t^{j}]	"ty"	kátyá	pepper
/v/ [v]	"v"	ìvúl	nuts
/j/ [j]	"y"	yéŋ é	to do
/w/ [w]	"w"	wùŋ	lazy
/ ɣ / [ɣ]	"gh"	ghá	give
/ ʒ / [ʒ]	"zh"	nèzhì	mother
/z/ [z]	"z"	zón	buy

6.1.2 – The Alphabet – vowel graphemes

There are 14 vowel letters in the alphabet of Befang. Some of these letters have been modified. The vowel letters in Befang are as follow:

"i, e, ɛ, ə, a, u, o, ɔ, ii , əə, aa, oo, uu, ee"

Phoneme symbol	Proposed grapheme	Illustrative word	Gloss
/i/ [i]	"i"	ní	enter
/i:/ [i:]	"ii"	kíí	know
/e/ [e]	"e"	fyé	here
/e:/ [e:]	"ee"	lèé	pour
/ə/ [ə]	"ə"	bə̌	people
/ə:/ [ə:]	"ə ə"	gə̌ə̌	walk
/a/ [a]	"a"	ábá	bed
/a:/ [a:]	"aa"	nàá	announce
/u/ [u]	"u"	úkúm	name
/u:/ [u:]	"uu"	ínúú	knee
/o/ [o]	"o"	ĭtó'ó	palace
/o:/ [o:]	"oo"	bóó	become tired
/ ɔ / [ɔ]	"ɔ"	ĭwɔ́	rain

6.1.3 – Tone Markings

The Befang alphabet has two tones marked. These tones include the two level tones High and Low. They are presented in the table below.

Level	H	´
	L	`

The tone marks above correspond respectively to the tonemes below.

Level	H	/˗/
	L	/�📉/

We will conclude this section on tone markings by presenting a list of words to illustrate each of the tone grapehmes

Toneme Symbol		Tone graphemes	Word	Gloss
/˗/	[˗]	" ˗ "	ká?	"start"
/ˋ/	[ˋ]	" ˋ "	fàn	"red"

6.2 – ORTHOGRAPHIC PRINCIPLES

This section deals with some of the conventional rules that we deem necessary to ease the task of reading and writing the Befang language. This orthography is phonemic in that, the letters are based on the phonemes in the language. These principles concern consonants, vowels, tones, as well as punctuation.

6.2.1 – Consonant Principles

As far as the consonants are concerned, read the consonants as they are phonemically realized in the language except in the following cases.

(1) Read "b" as [p] when it occurs at word final position.

Example / ágəb/ ⟶ [ágəp] hoe

(2) Read "v" as [vʲ] when it occurs before "a" at word final position

Example / úvá/ ⟶ [úvʲá] palm tree

(3) Read "g" as [gy] or [gw] when it occurs before "e"

Example /gé/ [gyé] to wear

/úgé/ /úgwé/ arm

The (3) orthographic rules above capture the reading of phonetic realizations that do not feature in the orthography.

6.2.2 – Tonal conventions

As far as tone marking in Befang is concern, we will adopt the following principles proposed by Wiesemann, et al. (1983). In this respect, we will suggest the following principle:

- We will mark only the low tone because it is the least frequent in the language. By so doing, it should be possible for one to count the tones on the basis of texts rather than on vocabulary basis.

6.2.3 – Vowel Principle

The long vowels or modified vowels will be written as in section 6.1.2.

6.2.4 – Punctuation Principles

- Sentences begin with capital letters and end with periods.
- Labialized, palatalized and aspirated sounds should be written on the same line with their preceding consonants.
- A question ends with a question sign.
- Names, abbreviation and proper nouns begin with capital letters.
- Pauses in sentences should be marked by commas.
- The semi-colon will be used to represent the colon and semi-colons.
- The exclamation sign should be used in exclamatory statements.
- Quotations should be written in inverted commas opened and closed.

6.3 – ILLUSTRATIVE TEXT

Below is an illustrative text intended to show the alphabet graphemes and orthographic principles at work. The first line is the orthographic

transcription and the second, is the literal translation. The literary translation of the whole story will be presented at the end of this text.

Atu - kàtənə yéŋǐ áwú afúm

"stubbornness makes you to suffer"

Ɪzəmi, wù amû: yamə̀ zùmukyen. Ū ya yŏ

In past man certain there poor live. Who has his

ǐya kə̀ŋúm. Awushi zǐŋi yamúhù, ù wʉ̀fə̀ fòó,

female pig. After some time, he past go borrow

ùnùm akə̀ ŋú m ø ù wushì bʲa ǐmbànə gì

a male pig At last he past build a fence and

nyì ùkə̀ŋum agə. Ndə̀ m ìkyel yaʒǐ zono

put pl pig inside. Many pl country past come to buy

ù kə̀ŋum ku mə. Ukə̀ ŋum ugùm kə tsù - ádòke

pl pig from him. Pl pig all for ceremonies

ba zò no kumə. Kúkáŋum bugùm kamŭ: yàmə

past buy from him. Pl pig all one of them

gə kaabye tsa. A washi ziŋ yamŭ:

which reproduce much. There past moment one

akə̀ŋum ku wa yeŋe aʧənəbù kə̀ wa bʲi

pig this past make a miracle by past reproduce

bɔn iwùm – batsùwa bafe kìzimu. A yamə̀

children twelve at a time. This was

zə̀kə̀ bukə. U bu wiyèŋě bə̌ bùki Kudi,

a strange thing. Sg thing past make people to know Kudi,

zəkɔ wù wé ù kyəbǐ ùkàŋum ufuf. Bə̌ waka'

as man the who have pl pig witch. People past start

maŋɔ̀se bàna mə̀. Bə̌ waka' mazhì víí ù

very much hate him. People past start to come kill pl

kàŋum mə kə̀ kafuf. Kudi, wa fì ŋaa

pig him through witchraft. Kudi, past plant fake

ùcǐ ka mbə̀nə̀ kǐko wù we wufúf ŭshì

medicine round fence to catch person any wizard that

uzhìmâ: .

appear.

A washì tsi yamû:, atənə̀ wufuf kamû: wudùlə

Certain day one, a stubborn wizard deliberate appear

ki fəmɔm ǐlə ùcǐ bù imba wu nì kə̀ mbənə̀

to try the strength medicine his man this enter the fence

ùkàŋum mà ké wo:gəl kǐdùlə. Ndə̀ mì bə̌ wa zhì

of pig can not come out again. Many people past come

kwele wùfuf wù adzə̀ ìmbə̀mə̀ wu ba waka'

see wizard this inside the fence and they past start

maŋə̀se – fyə̀nə̀ Kudi.

to dread Kudi.

The literary translation of this story is done below.

STUBBORNESS MAKES YOU TO SUFFER.

Once upon a time, there lived a certain poorman who had his female pig. After sometimes, he went and borrowed a male pig. At last he made a fence and put them inside. People from several villages came to buy pigs from him. All the pigs for ceremonies were bought from him.

Amongst all his pigs, one of them reproduced a lot. There was one moment when this pig performed a miracle, by reproducing twelve piglets at a time. This was a strange thing. This thing made many people to know Kudi, as the man who has these supernatural pigs. Then people started hating him so much. People came to kill Kudi's pigs through witchraft. Kudi planted fictitious herbs around his fence to catch whosoever, that appears through witchracft.

One day, a certain stubborn wizard deliberately appeared to tease the strength of Kudi's medecine. This man entered the fence and could not come out again. Many people came to see this wizard inside the fence and they started dreading Kudi.

GENERAL CONCLUSION

Our prime objective in this work titled: The Phonology of Befang, was to describe the phonology of the language, using the structural phonology theoretical framework, and to create the awareness in the minds of the native speakers that their language could be moved from its oral nature to a written one. To obtain this object; we made an inventory of 45 phonetic consonant sounds, 14 vowels and 4 tones in the language. They were realized at the phonetic level.

At the end of the analysis of phonemes, we realized 14 vowel phonemes, which include the long vowels, two tonemes and 44 consonant phonemes. These consonants comprise 24 simple consonants, 3 prenasals, 4 affricates and 13 modified consonants, which are distinctive in the language. The long vowels in the language also contrast with their short counterparts. The two contrastive tones in Befang are the High and low tones.

During the phonemic analysis, we attempted to resolve problems faced in the interpretation of complex or ambiguous sounds. They include consonant modification, pre-nasalization, and long vowels in the language. We will recommend here that, further research be carried out on these segments, for we have only laid the groundworks for future research.

We also went into the nakedness of the language, to examine and discover its syllable structure. It is therefore realized that, the language has 4 syllable types: the v, ç, cv, and cvc, which combine in various ways to form different word pattens. This project also reveals that tones in Befang play a phonemic role. This work also treats some phonological processes like glide formation and devoicing. The last section of this work is a proposed alphabet and orthography for the language. This orthography

consist of 44 consonant letters, 14 vowel letters and 2 tonemes to be marked.

We are conscious of the fact that, we have not exhausted all the phonological features in the language. That notwithstanding, this piece of work can serve as an eye-opener for other aspects of the language like morphology, syntax, semantics and autosegmental phonology, which could reveal more interesting elements which will be of great importance to linguists. We hope that this work will create a sense of awareness in the minds of the speakers, of the rich diversity of their language.

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