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REDUPLICATION IN NGIE

A Dissertation presented in partial fulfilment of the requirements for the award of a Masters Degree in Linguistics

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DEDICATION

Dedicated to

My beloved parents.

Hon. Umenjoh Lucas Isengyeng

Mrs Umenjoh Christina Ichunjei

For their love and care

and

to my daughter,

Anagho Sandra Abo Ichunjei,

for missing the motherly touch during this study.

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SIGNS AND ABBREVIATIONS

´	= high tone
¯	= mid tone
`	= low tone
+	= positive value (of a feature)
-	= negative value (of a feature)
-->	= becomes
--#	= word final position
C	= consonant, Complement
V	= vowel or verb. When found in rules, V stands for the following features = +syllabic, -consonantal
S	= subject
O	= object
A	= adjunct
Vd	= voiced sound
UR	= underlying representation
PR	= phonetic representation
son	= sonorant
cons	= consonantal
cont	= continuant
lat	= lateral
cor	= coronal
nas	= nasal
ant	= anterior
hi	= high

bk = back

rd = round

[ ] = phonetic transcription

/ / = phonological transcription

Vls = voiceless

ˆ = falling tone

ˇ = rising tone

Infinit = infinitive

Imper = imperative

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CHAPTER I

1. General Introduction

Language is an important aspect of any society. For this reason, it will be necessary to know the background of the society that uses a particular language before studying the language. That is why this work starts with the presentation of the geographical and historical background of the Ngie clan before tackling reduplication in Ngie.

1.1 Geographical Background

Ngie is a subdivision found in Momo Division in the North West province of Cameroon. (see map 1). The Ngie clan is the centre of the five clans that constitute Momo Division. To the North East of Ngie is Menemo, to the South is Moghamo, to the South West is Menka and, finally, to the West and North West is Ngwaw (see map 2).

The Ngie clan area falls approximately between latitude 5° 43' and 6° 10' North and longitude 9° 43' and 9° 55' East. The North South extent is about 25 km (bird flight) and East West extent 22 km with a land surface area

of about 250 km² (Tweed A.E 1923).

The land of Ngie is very mountainous and slopes from North to South which renders settlement, movement, agriculture and development difficult. Irrespective of all these, the area remains a good touristic site.

The Ngie area has a tropical climate with two annual: the dry season which runs from mid-November to mid-March and the rainy season from mid-March to mid-October.

The southern part of Ngie is warmer than the northern part. This climate has made it possible for the Ngie people to diversify agriculture. While the people in the North are engaged in cattle rearing and other minor agricultural activities, those in the South are seriously engaged in palm oil production.

The population of Ngie has been constantly increasing over the years. The earliest recorded estimates show that the population stood at 10,000 people in 1890. The 1987 census figures put it at 24,798 inhabitants. In 1996, the figure was estimated to have risen above 26,000 (Ndoh Samuel: 1996).

1.2. Historical Background.

Ngie is one of the five clans that form the Widikum ethnic group. The rest of the clans include: Moghamo, Ngemba, Ngwaw and Menemo.

Like the other clan of this ethnic group. Ngie is of semi-Bantu origin.

This ethnic group is said to have emigrated some 250 years ago from the fringes of Congo (J.A Ngwa 1978: 144) and finally settled in Widikum which gave it its present name.

Each clan has its own local tradition which narrates how the group dispersed, moved, and finally occupied its present site (Paul Nchoji N: 1987)

The Ngie people, despite their Widikum heritage, still claim that they originated from Dudum through their ancestor, Ungiekum who came out of the plunge pool of the Dudum waterfall of River Fek. In the course of time, the need for expansion on economic grounds became apparent to Ungiekum and he sent his sons to the field for pastures. This migration eventually led to the formation of the nineteen villages that make up the Ngie clan.

Dudum has therefore remained a historic site regarded by the Ngie people as the home of the Ngie ancestor.

The major groups that are said to have emerged from the Ungiekum legendary site include Mengom, Teze, Andek, Etwii, Bungafuge, and Azem.

As time went on, subgroups began to emerge from the main groups forming the nineteen villages of Ngie. These

villages include: Andek, Teze, Etwii, Abebung, Ebang, Angong, Ajei, Tinechung, Azem, Bassic, Nkon, Essaw, Echia, Abichia, Angai, Etoh, Bonatu, Bonambufei, and Akuwu. (see map 3).

1.3. The language.

Ngie, the language of the Ngie people, is spoken in the nineteen villages that make up the Ngie clan.

This language uses a lot of phonetic vowels and consonants in the formation of its words. It uses front, back and central vowels which can either be high, mid or low (see chart 1). Here are some of the words in which these vowels are found.

Vowels	Words	
Ngie	Ngie	English
a	à-nɨ	ant
e	ā-bé	country
ə	ù-nən	bird
ɛ	ū-wɛ́ŋ	firewood
o	ā-dó?	throat
ɔ	ī-kɔ́n	bean
ø	ù-čəw	mouth
i	ì-njim	back
u	ū-būŋ	brain
ʉ	ū-kɨ́ŋ	crabs

The language uses both voiced and voiceless consonants (see chart 2). Consonant clusters are also used and they can either appear at word initial position or at word medial position.

Here are some words containing these consonants:

Consonants	Words	
Ngie	Ngie	English
b	bâ	people
č	ī-čôw	landslides
d	dwí	clothes
f	fùrì	sack
g	ì-ŋg+	fowl
j	ī-jə́k	food
k	ū-kə̂n	message
m	ū-gûm	mountain
n	ū-né	water
ɲ	ì-ɲî	animal
ŋ	ī-kīŋ	pot
p	ū-káp	money
r	ā-fírí	black
s	ì-sú	fish
t	ā-zàt	tree

w	ā-wúə̀	bone
v	ā-yē	woman
z	ā-zɛ́t	much
ɔ	ā-zɨ́ʔ	yam
mb	ì-mbàŋ	walking stick
ŋg	ì-ŋgwèy	pig
nj	ī-ŋjə̀m	dream(s)
nd	ì-ndwí	cloth

1) Phonetic Vowel Chart of Ngie

(In this chart, "R" stands for "round").

	Front		Central		Back	
	+R	-R	-R	+R	-R	+R
High		i	ɨ			u
Mid		e	ə			o
		ɛ				ɔ
Low			a			

2) Phonetic Consonant Chart of Ngie

Manner of Articulation		Bilab	Labio Dental	Dental aveol	Pal Alv.	Palat	Velar	Glottal
Plosive	Vls	p		t			k	ʔ
	Vd	b		d		j	g	
Fricat.	Vls		f	s				
	Vd			z				
Affric.	Vls				č			
	Vd				j			
Nasal	Vd	m		n		ɲ	ŋ	
Prenas								
Stops	Vd	mb		nd			ŋg	
Trill	Vd			r				
Approx.	Vd	w				y		

Most words in Ngie begin with vowels and these vowels are always prefixes. These prefixes are a-, i-, and u-. Nouns that also begin with consonants are considered to have zero (ø) prefix (Hombert 1976).

1) Examples.

Prefixes	words	
Ngie	Ngie	English
a-	à-sèv	soap
	à-bœ̀	monkey

	ā-zát	tree
i-	ì-kɨ̀ŋ	nest
	ì-fîŋ	heart
	ì-sū?	calabash
u-	ū-ćéy	humming bird
	ū-fú?	leaf
	ū-nâ?	wine
ø	bɛw	dog
	bī	palm nut
	sú	fish

Ngie is a language which uses a lot of tones. It uses both level and contour tones. With the level tone, it uses the high, the mid and the low tone while with the contour tones, it uses the falling and the rising tone.

Level tones

´ = high

¯ = mid

` = low

Contour tones

ˆ = falling tone

ˇ = rising tone

2) Examples

Tones	Words	
Ngie	Ngie	English
Level	sú	fish
	dwí	clothes
	bɛ́t	war
	ā-yē	woman
	ī-bēy	kola
	ī-tōŋ	navel
	ì-kwî	maize
	ì-sɔ̀p	slave
	à-n	ant
Contour	wâ	person
	bâ	persons
	ŋî	animals
	à-tōŋ	ear
	ì-ŋǐ	anus

Ngie is a tone language in which pitch distinction is phonemic.

3) a) ì-bɛ́t 'war'

ī-bɛ́t 'excrement'

b) ì- ɲî 'animal'

ì- ɲī 'anus'

Morphologically, Ngie is analytic, agglutinating and synthetic in the formation of its words. This means that there are some words in Ngie formed with just one morpheme, there are others formed with two or more morphemes and there are still some morphemes in Ngie which stand for many categories in the language.

4)

Morphemes		words	
Ngie		Ngie	English
Analytic	one	bâ	persons
		sú	fish
		bī	palm nut
Agglutinating	two	ī-kɔ́n	beds
		ū-nɨ̂ʔ	wine
		ā-sɔ̄ŋ	teeth
	three	mbùk à-kāŋ	dish
		ā-bɔ̄mɔ́ŋgɨ́	eggs

Synthetic	one	mə̂	(subject, first person singular, neuter)
		wə̂	he/she (subject, second person singular, neuter

Sentences are written from left to right and the normal sentence structure is subject (S), verb (V), object (O).

5) a) mə̂-jə̄k ā-kón

S V O

I eat beans.

'I ate beans'

b) wə̂-nùm nāmásí

S V O

he take orange.

'He took an orange'

This language is similar to Oshie and Ngamambo. This is evident in the naming of some lexical items.

Following are some words that illustrate this similarity:

6)

words

Oshie	Ngie	Ngamambo	English
ā-bán	ī-bán	bán	breast
ū-nān	ú-nán	fù-nán	bird
kwì	ì-kwì	kwì	maize
ŋkàbè	ū-káp	káp	money
tabɛ́rɛ́	tébɛ́rɛ́	tébárá	table
tá	tá	tá	sew
nàʔà	nàʔà	nàʔà	give
ā-káŋ	ā-káŋ	káŋ	pan
ŋ̄gwàŋ	ù-ŋgwàŋ	fā̄ngwāŋ	salt
kòn	ū-kón	kún	bed

1.4 Dialects

Ngie like most languages has its varieties known as dialects. In carrying out this work, the researcher was quick to notice that Ngie has about nineteen dialects resulting from slight variations in the way the people from the various villages speak. In any case, it is important to note that the dialects of Mengom and Azem area are slightly different from those of the rest of the villages of Ngie. (See shaded areas on map 3). This is because these two main

areas are geographically cut off from the rest of the villages of Ngie. For this reason, Mengom and Azem areas are closer to their neighbours, Menka and Widikum respectively. Hence, they borrow some of their words from the languages of these neighbours which make mutual intelligibility between them and the rest of the Ngie people to be difficult.

Here are some words borrowed from these neighbours that are not common to the rest of the speakers of Ngie:

7)

words

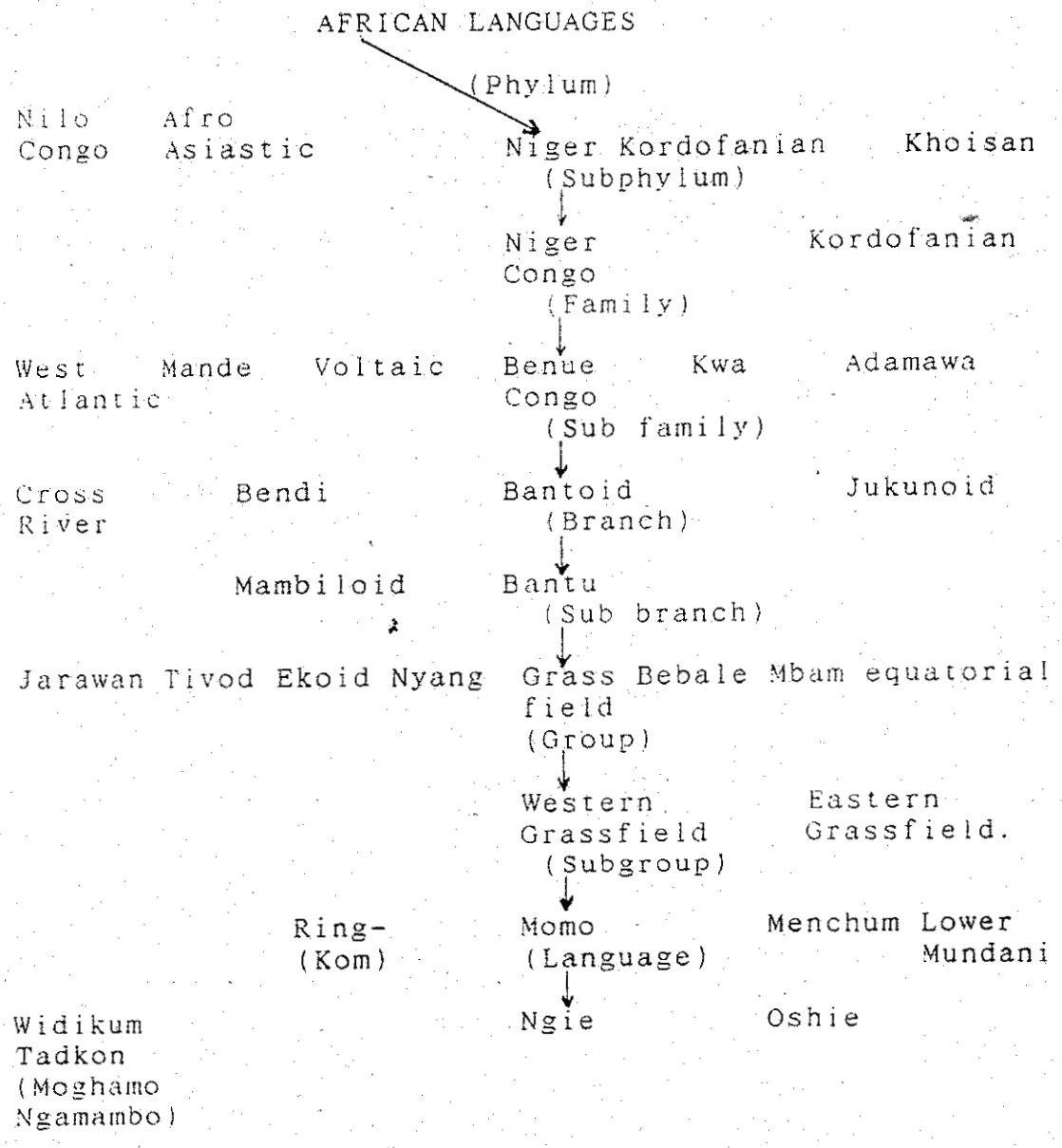
Mengom	Ngie	Azem	English
ā-rū	ā-ɣø̄	ā-wùk	foot
gró	ū-né	ū-nép	water
kó?	ì-ŋgɨ	ì-gùp	fowl
bré	ì-bī	bí	palm nut
ì-bìt	ì-bɛ́t	ì-bìt	excrement

1.5. Classification of Ngie

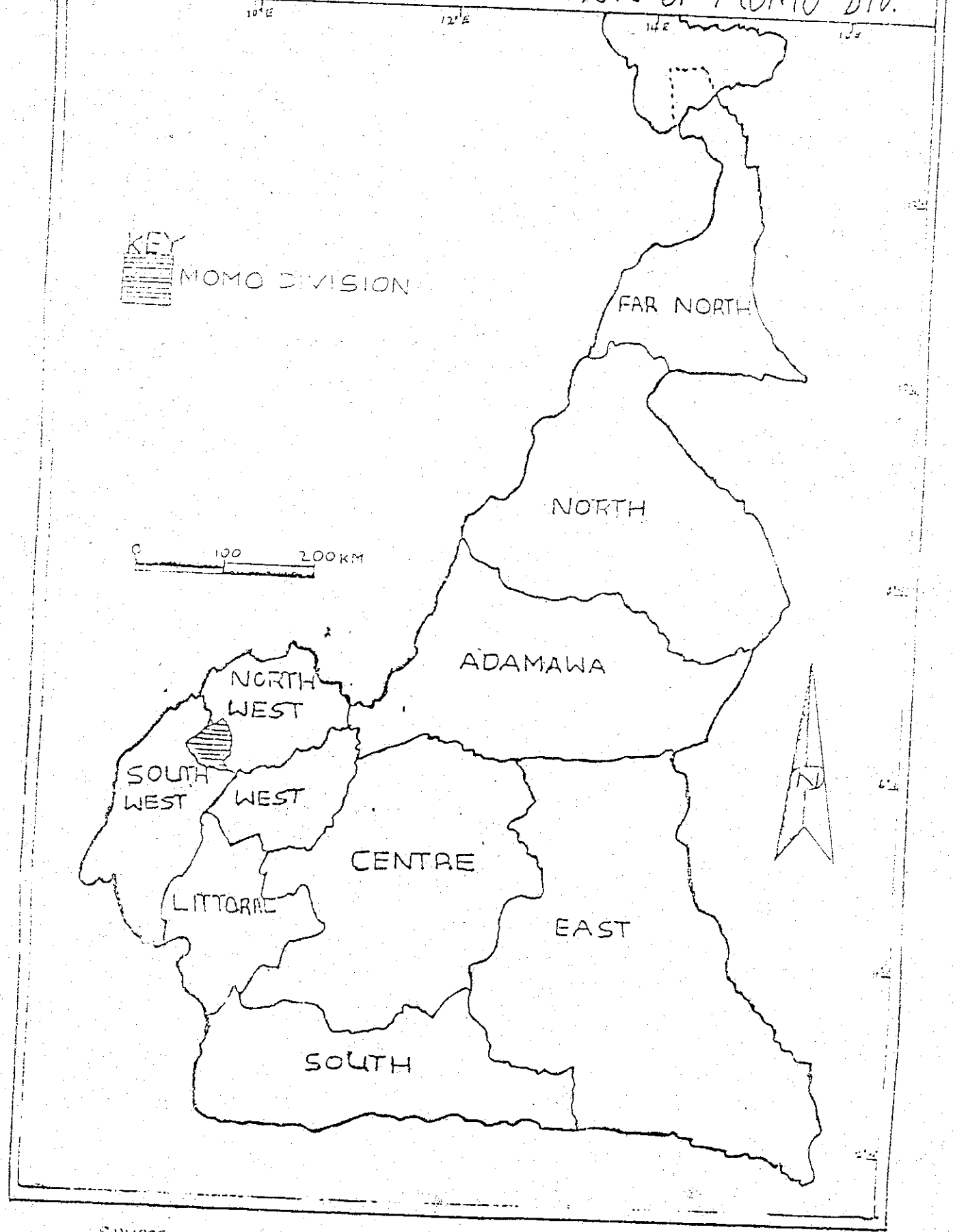
Although Williams (1971: 278) lists Ngie among the unclassified languages of Mamfe Bantu group of Bantoid. Stallcup (1977) classifies Ngie as one of the Momo languages of Western Grassfields.

In order to show the phylum, the family and the branch to which this language belongs, Greenberg's genealogical classification of African languages has been adopted and used with that of Stallcup to classify Ngie.

The Genealogical Classification of Ngie

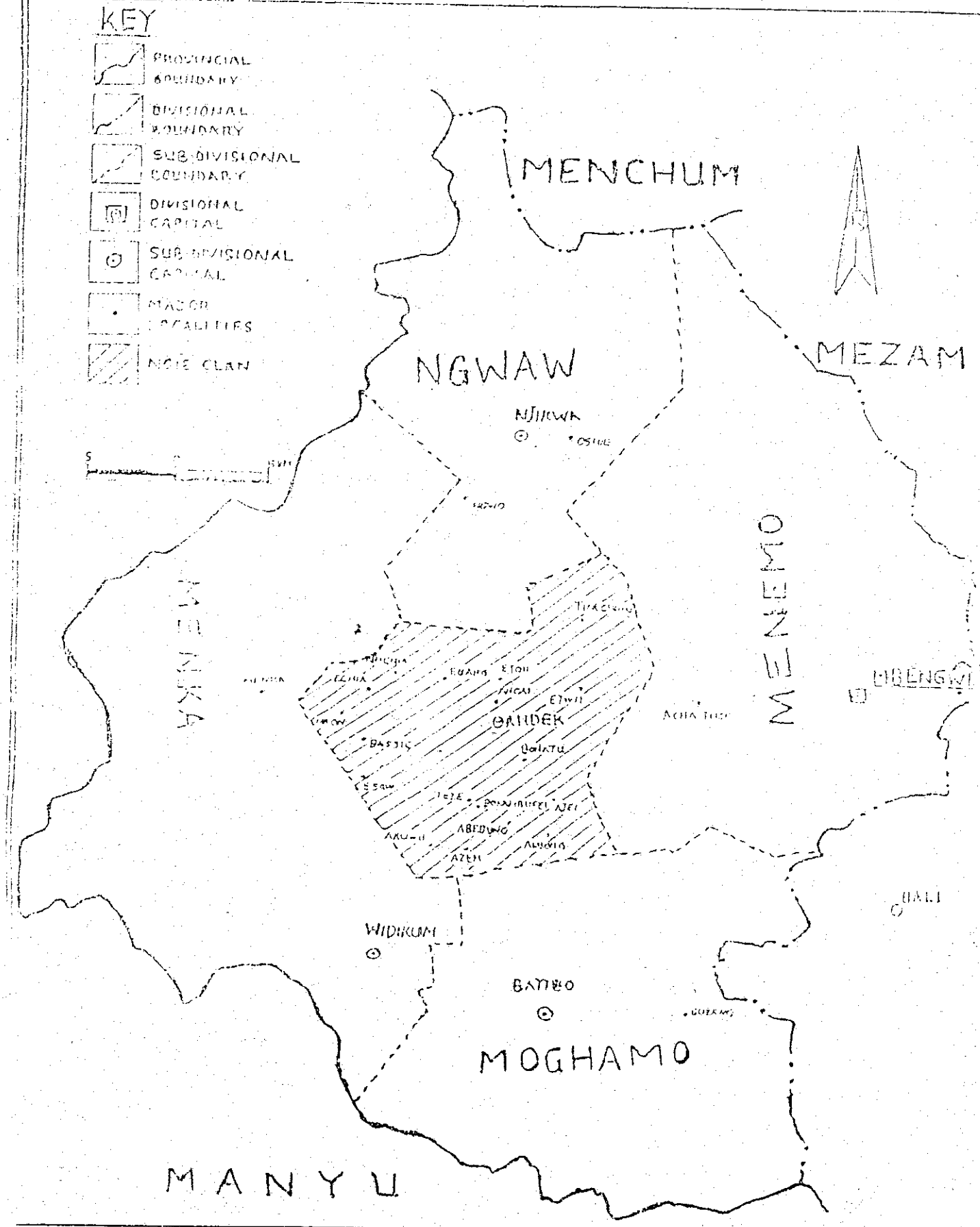


SKETCH MAP OF CAMEROON SHOWING THE LOCATION OF MOMO DIV.



SOURCE: Adapted from, Atlas of the United Republic Cameroon (Paris: Edition Jeune Afrique, 1980), pp. 32-33.

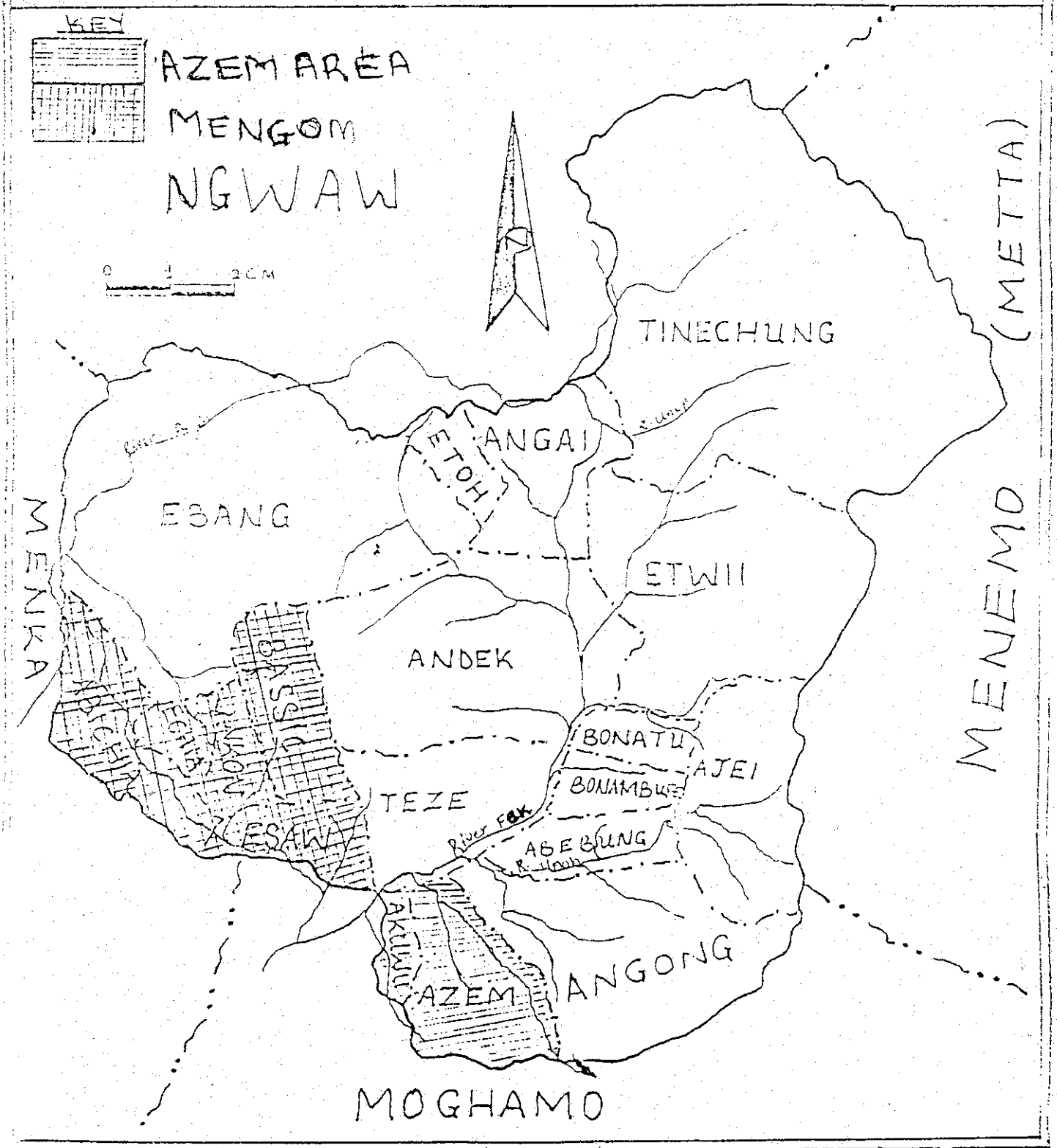
SKETCH MAP OF MOMO DIVISION SHOWING THE LOCATION OF THE NGIE CLAN



SOURCE: Adapted from the file of the Momo Divisional Delegation of the Plan and Regional Development, Mbengwi

MAP 3

SKETCH SHOWING THE 19 VILLAGES OF THE NGIE CLAN



Adapted From: V.A. AZOBI, "The Ngie area: Human Adaptation to a Harsh Physical Environment" 1979.

1.6. Aim of the work.

This work has been written to include the villages that Jean-Marie Hombert (1976) failed to include in his work entitled "Noun classes and Tones in Ngie." These villages include Angai, Etoh, Bonatu, Bonambufei, Akuwu and Azem. Ugom (Mengom) that he mentions as one of the villages of Ngie is a large area consisting of five villages. These villages include Bassic, Nkon, Essaw, Echia and Abichia. (See map 3).

This work is aimed at throwing more light on the rules that govern Ngie as well as its structure.

In addition, it is to make it easier for linguists to compare reduplication in Ngie with reduplication in other languages of the world.

The work is also aimed at creating an awareness in the native speakers that their language has been written somewhere; hopefully, they will be thus encouraged to learn how to read and write it whenever possible.

1.7. Literature Review.

Previous work on the Ngie Language includes "Noun Classes and Tones in Ngie" (1976) by Jean-Marie Hombert. "The Momo Languages" (1977) by Stallcup K. L, "The classification of Ngie" (1977) by Stallcup.

1.8 Methodology.

Both the descriptive method and the generative approach have been used to present this work.

The descriptive method has been used to present both the geographical and the historical background of the Ngie people and also Ngie as a language.

Generative approach has been used to explain reduplication; how it affects the Ngie language and the various classes of words that are affected by reduplication. In doing this, a set of data has been collected and analysed according to the various word classes.

Chapter 2

2. The Open Class of Lexical Items in Ngie and Reduplication

Reduplication is a concept that affects four main classes of words in Ngie. It affects nouns, verbs, adverbs and adjectives, all of which form the open class of lexical items in Ngie.

In order to understand reduplication, it is crucial to present an introductory overview of these classes of words and also the term reduplication. Only information which is relevant to the topic will be discussed.

2.1 Nouns.

A noun can be defined as a word that is the name of a subject of discussion or the object. Typical nouns include: person, animal, plant, place, thing, substance, quality, action or state of being. Here are some nouns in Ngie. The prefixes are separated from the roots.

1. a) Names of persons.

ā-kō

ì-tà

ā-kè

ā-kàm

b) Names of places.

à-čùm

à-ndèk

à-jɔ̀ŋ

c) Names of animals.

ī-búgí 'goat'

à-bœ̀ 'monkey'

ì-njək 'sheep'

ì-bɛ̄w 'dog'

d) Names of plants.

ì-kwì 'maize'

ā-kɔ́n 'beans'

ā-zɨ́ʔ 'yam'

ū-ɣáp 'palm tree'

e) Names of things.

ā-nâm 'lamp'

ì-kø̄ 'nail'

ì-jʉ̀ŋ 'axe'

f) Substance

ī-ndíʔ 'smoke'

ā-ɲà 'iron'

g) Quality, action or state of being.

ì-jàŋ 'poverty'

īɣáʔá 'happiness'

ū-négé 'love'

ī-kà 'to be powerfull

In Ngie, there are both simple and compound nouns. A simple noun will refer to a single word having one or more meanings (see 1). A compound noun is one consisting of two or more words.

2. a) ìnàūtìnè /i-na u-tine /

house church

'church'

b. àbɔ̀mɔ̂ŋgɨ̀ / a-bɔmɔ ŋgɨ /

egg fowl

'egg'

There are some nouns which are compound words in Ngie but are simple words in English.

3. a) Mbùkàkàŋ /mbuk a-kaŋ /

deep pan

'dish'

b) ùŋàvè /u-ŋa a-ye /

relative woman

'sister'

There are also some nouns which are simple words in Ngie but are compound words in English.

4.a) ì-mbàŋ 'walking stick'

b) ū-ɣáp 'palm tree'

Irrespective of these differences, most compound words in Ngie are compound words in English and Ngie uses the same rules like English in their formation as it combines adjectives and nouns to form compound words (see 3a) or it combines two or more nouns to form these compound words. (See 2).

Most nouns in Ngie begin with vowels and the first vowel is always a prefix. This prefix can either be an a-, i- or u and all of them carry either a mid or a low tone. (Hombert 1976: 7)

5.a) Words with a- prefix

à-sèy 'soap'

ā-kɔ́n 'beans'

ā-sɔ̄ŋ 'teeth'

ā-tə̄w 'head'

b) Words with i-prefix

ì-kə̄ 'nail'

ì-kwì 'maize'

ì-njìm 'back'

ī-ŋɔ́ 'body'

c) words with u-prefix

ū-sɨ́ 'pepper'

ū-béy 'knife'

ù-nə̀n 'bird'

ū-ŋə́t 'oil'

Nouns that begin with consonants are considered to be having zero ø- prefix. (Hombert 1976).

6. a) bɛ̄w 'dog'

bī 'palm nuts'

sú 'fish'

nî 'animals'

In most cases, a change in number does not lead to a change in tone in nouns. Hence, the tone remains the same for both plural and singular.

7. a) ī-k-ón 'bean'

ā-kón 'beans'

b) ū-ɣáp 'palm tree'

ī-ɣáp 'palm trees'

In any case, there are some few cases of tonal deletion due to the deletion of a prefix because of a change in number.

8.a) ì-bī 'palm nut'

bī 'palm nuts'

b) ì-nî 'animal'

nî 'animals'

2.1.2 Classes of nouns.

There are two main classes of nouns in Ngie: The Morphological class and the Semantic class.

2.1.2.1. The Morphological class.

In Ngie, nouns that provoke an identical pattern between themselves and other noun related items in a larger syntactic construction belong to the same morphological class. Nouns in this language are therefore divided into the following morphological classes (1,2,3,4,5,6,7,8,9,10,13,19,6a). These classes have been differentiated using the pronoun 'my' (Hombert 1976:5). This has been presented in a table form below.

Noun Classes in Ngie Adopted From Jean-Marie Hombert.

Class	Prefix	Examples		'mv'
1	ī- ø-	ī-tà wâ	'friend' 'person'	òŋgù
2	ī-	ī-bà bâ	'friends' 'persons	òmbūŋ
3	ū-	ū-kɔ́n	'bed'	òŋgū
4	ī-	ī-kɔ́n	'beds'	ìɲī
5	ī-	ī-kɔ́n	'bean'	ìɲī
6	ā-	ā-kɔ́n	'beans'	ìɲə̄
7	ā-	ā-wúə́	'bone'	ìɲə̄
8	ū-	ū-wúə́	'bones'	òmbū
9	ì- ø-	ì-bɛ́w bɛw	'dog' 'dog'	ìɲə̄
10	i- ø-	ì-bɛ̄w bɛ̄w	'dogs' 'dogs.	ìtīŋ
13	ī-	ī-kí	'floors'	itiŋ
19	ū-	ū-bé	'knife'	òfūŋ
6a	ū-	ū-né	'water	òmbūŋ

2.1.2.2. **The Semantic Noun Class.**

Nouns can be divided into two main semantic classes: proper and common nouns.

Proper nouns refer to names of people and places (see 1a,b)

Common nouns refer to things. These things can either be countable or uncountable. concrete groups like mass nouns, collective nouns, weather nouns, kinship nouns

and value nouns (Tamanji Pius Ngwa 1991).

9. a) abstract nouns:

bànà 'hate'

ū-négé 'love'

ī-ɣáʔá 'joy'

b) Mass nouns.

ū-né 'water'

ì-sékwá 'sand'

ù-ŋgwàŋ 'salt'

c) Collective nouns.

ū-nébé 'family'

d) Weather nouns.

ū-fɨ́ 'cold'

ā-nɔ̂m 'dry season'

e) Kinship nouns (African Context)

ù-mbàk 'fathers'

ū-nâyē 'sisters'

f) Value nouns.

ù-fànà ì-tìŋ 'five francs'

ù-fànà ì-wùm 'ten francs'

ù-fànà ì-wùm ì-tà 'thirty francs'

It is important to note here that abstract nouns deal with concepts: mass nouns refer to nouns that exist in a whole such that they cannot be separated into various component parts: collective nouns refer to groups of persons or

things: weather nouns refer to condition of weather: kinship nouns refer to family relation in African contexts: and value nouns refer to sums of money.

2.2. Verbs

A verb is a word that tells what a person or thing does or experiences. Webster (1961: 2542) defines a verb as:

> "a word belonging to that part of speech that characteristically is the grammatical center of predicate and express an act. occurence. or mode of being that in various languages is inflected for agreement with person and number of the subject for tense. for voice. for mood or for aspect and that typically has rather full descriptive meaning and characterising qualities but in some cases devoid of such meaning and quality especially used as an auxiliary."

From the above definition therefore. the verb is the center of the predicate. This is because a predicate cannot exist without a verb. If a predicate has just one element, it must be the verb.

10. The child slept

Subject Predicate.

This is also true of Ngie where a predicate can be made up of the verb only.

11. mə̂ jə́k

I eat

'I ate'

Subject Predicate

From the above example, it can be seen that the predicate has only the verb. In Ngie like in English, if other elements are to be added to the predicate, they should be objects, complements and adverbials. This will be illustrated in the examples that follow using 'S' for subject, 'P' for predicate, 'O' for object, 'C' for complement and 'A' for adverbial.

12. a) mə̂ jə̀k nāmāsī

I eat orange

(S) (V) (O)

'I ate orange'

b) ū-né mbî bɔ̀ŋɔ̀

water are good.

(S) (V) (C)

'water is good'

c) mâ čōmɔ̄ àkìŋ

1 sit here

'I sat here'

A single verb in Ngie, like in English, can make a complete sentence. This is evident in situations of command.

13. a) Čɔ̄mɔ̄!

Sit!

b) tém!

Stand!

In Ngie, the infinitive verb always starts with an i-prefix and this verb can either be monosyllabic or disyllabic word.

14. a) Monosyllabic Verbs.

ī-nūm 'to take'

ī-zòŋ 'to fight'

ī-jək 'to eat'

ī-ŋù 'to go'

ī-pø̄ 'to tear'

ī-čà 'to send'

ī-kàt 'to hang'

ī-bək 'to appear'

ī-kū 'to die'

b) Disyllabic Verbs.

ī-čɔ̄mɔ̄

ī-nārā

ī-bɛ̄rɛ̄

ī-mātā

These verbs can be grouped into open and close syllables. An open syllable verb is one that ends with a vowel. A close syllable verb is one that ends with a consonant. In Ngie, some monosyllabic verbs are open syllable and all disyllabic verbs are open syllable (see 14 a.b).

When a morphological process takes place in the verb with the deletion of the infinitive marker, the verb changes from the infinitive to the imperative form. This deletion

leads to the insertion of some sounds at the end of some verbs and then, to a change in tone in monosyllabic verbs. Hence, a change in tone only takes place after the insertion of sounds has taken place. The sounds inserted are [ɔ], [a], and [ə]. They are inserted at word final position after [n], [ŋ], [p] and [k]. These consonants become voiced with the insertion of the above mentioned vowels. There are certain phonological rules governing this change in sound (see chapter 3). Below is a table to show the change in tone and the change in sounds.

15 Table

Infinitive imperative verbs in English.

Ī-nūm	núm	take!
Ī-nārā	nārā	speak!
Ī-zɔ̄n	zón	buy!
Ī-čà	čá	send!
Ī-pō	pó	tear!
Ī-zòn	zɔ̄ŋ-ɔ̄	fight!
Ī-kàb	kāb-ā	search!
Ī-bàk	bāg-ā	appear!
Ī-kū	kú	die!
Ī-mātā	mātā (mā ā)	finish!

2.2.1 Tenses of the Verb

Verbs in Ngie can be conjugated into the present, the past and the future tense. Tenses in this language are marked by:

1) Pre-verbal morphemes

2) Verb inflections

3) Tones

4) Adverbials of time.

Adverbials of time play a very important role in specifying time especially with the future tense which has only one marker in Ngie.

In illustrating the various tenses in Ngie, the agglutinating method of word formation will be used. (See 1: 4). In the examples that follow, some words will be consisting of two or more morphemes. This method will be used alongside with the analytic and synthetic methods of forming words. (See 1: 4)

In order to make a clear distinction between tenses therefore, the same verbs will be used in various sentences to show the tenses. The two verbs to be used in these sentences are 'ībīn' (to dance) and 'īŋù' (to go).

2.2.1.1. The Present Tense.

16. Timeless Present

i) They always go home

ū-mbî kà ŋù ūnū?

They-are always go home

17. Present Progessive

i) They are going home.

ū-mbî-ŋùè ūnū?

They-are-go home.

2.2.1.2. The Future Tense.

18. He will dance this afternoon.

ū-wí-bīn ā-ká jà?à

He-will-dance this evening.

2.2.1.3. The Past Tense.

19. a) Recent Past.

I danced this morning.

mə̂-bīn ā-kə́ fəfəb

I-dance this morning.

b) Remote Past

I danced last week.

mə̂-bín ā-kà zɨ̂ čigi

I-dance week that past

Apart from the examples illustrated above. these verbs can also be used in imperative and interrogative sentences.

20. a) Imperative sentences.

i) Stand and let us go!

tém mbà ŋúə̀!

Stand we go

ii) Dance and sit here!

bín zāʔá čɔ̄mɔ̄ à-kin.

dance come sit here

b) Interrogative sentences.

i) Is Ako still dancing?

a-ko mə̀ bùgə̀ bìn-ə̀

Ako be still dance

ii) Is he just arriving?

ù-mə̀ pîn à-ká kìrînè

he be arrive this now.

3.2 Adjectives

Adjectives are words that tell something about a noun. In most cases adjectives modify nouns. This is evident in Ngie as illustrated below.

21. a) ā-kè wə̀ sà

Ake is tall

b) mə̀ jī dwí bāŋā bɔ̄ŋ

I steal dress red the

'I have stolen the red dress'

Adjectives in Ngie start with consonants and in most cases, they are either monosyllabic or disyllabic words. Even though these adjectives start with consonants, they sometimes carry prefixes depending on their context. In most cases, they bear the prefix of the nouns they modify. Hence, these adjectives can either have an i-, a-, or u- prefix depending on the prefix of the noun. This can be illustrated with 'red' which is 'bàŋ'.

22. bàŋ

mə̂ bàŋ?

I red

'Am I light in complexion?'

23. ā-kán ā-bāŋ-ā

pan red

'Red pan'

ī-kón ī-bāŋ-ā

bean red

'Red bean'

24. ū-kón ū-bāŋ-ā

bed red

'Red bed'

Again, when these adjectives are modifying nouns, most of them either carry an i- or a- suffix depending on the adjectives. The suffixes are inserted after [t] and [n]. This is evident in 'bàŋ' (red) which becomes 'bàŋ-à' and fìt (black) which becomes 'fìr-ì.'

The insertion of these suffixes also bring about some phonological changes in some words. This is evident in the fact that some voiceless consonants become voiced with the insertion of these vowels. There is 'fit' which becomes 'fìr-ì.' This comes about as a result of the fact that Ngie, like any other languages, has phonological rules it follows in the formation of its words. Some of these rules

will be discussed in chapter 3.

Since adjectives use the prefixes of the nouns they modify, the same prefix can be a singular and a plural morpheme depending on the nouns the adjectives are modifying. Hence, in Ngie, adjectives agree in number with the nouns they modify.

25. a. i) ī-kɔ́n ī-bāŋ-ā
bean red
'red bean'

ii) ī-kɔ́n ī-bāŋ-ā
beds red (pl)
'red beds'

b. i. ā-nâm ā-bāŋ-ā
lamp red
'red lamp'

ii. ā-kɔ́n ā-bāŋ-ā
beans red (pl)
'red beans'

c. i. ū-kɔ́n ū-bāŋ-ā
bed red
'red bed'

ii. ū-bɔ́n ū-bāŋ-ā
farms red (pl)
'red farms'

Although in most cases adjectives follow the nouns they modify, there are still a few cases where adjectives also precede nouns.

26.a. ū-nūn ù-bàmà

old (pl) bags

'old bags'

b. à-kàm ū-čə̂ɯ

large mouth

'large mouth'

c. ā-ɲə́ʔə́ ā-sɔ̄ŋ

smelling teeth

Unlike in English where there are many adjectives describing colour, in Ngie, there are only three: red, white and black. Hence, black in this language will include green, purple and blue. Red will include pink and orange colours. Finally, anything yellow is considered white.

2.4. Adverbs

Adverbs are words that give more meaning to verbs, adjectives and other adverbs.

27. a. The sky is beautifully clear

b. He moves smartly.

c. He talks very slowly.

These adverbs like most words in Ngie start with prefixes. These prefixes can either be i-, a-, or u-.

Here are some adverbs in Ngie and the way they function in sentences:

28. a. ā-náŋ 'high'

ū-mbī ā-náŋ à-gin ū-fə̄

they are high in air

'they are high in the air'

b. ū-túk 'year'

mə̀ bín à-kə̀ ū-túk

I dance this year

'I dance this year'

c. ī-vàt 'side'

zā?ā ì-vàt

'come sideways'

Adverbs are limited in Ngie compared to nouns, verbs and adjectives. Irrespective of this, there are also adverbials of time in this language. Some of them include:

ā-kəčūŋ 'today'

ā-súgé 'tomorrow'

ì-kà 'week'

ū-mək 'month'

ū-túk 'year'

29.a. ū-wí-jēk ā-kəčūŋ

he-will-eat today

'he will eat today'

b. ū-wí-jək ā-súgé

he-will-eat tomorrow

'he will eat tomorrow'

c. ū-wí-jək ā-kà zìn mè-zāʔā

he-will-eat week that be-come

'he will eat next week'

d. ū-wí-zāʔā ì-nyìrì ū-mək

he-will-come end month

'he will come at the end of the month'

e. mê-záʔá ū-túk a-jîg

I-come year last

'I came last year'

All adverbs in Ngie form part of the open class of lexical items in the language. This is because new items can be added to them. One of the methods by which this can be done is through reduplication.

2.5. Reduplication

Reduplication is a morphophonological process whereby words are formed by doubling part or an entire word. It is a situation where some strings of words, a consonant, a vowel, one or more syllables, a stem or a whole word may be repeated to provide some particular meaning to the word in process.

30.a. One syllable reduplication (Andrew Spencer 1991)

Agta (Marantz 1982:439)

bari	'body'	barbari-k-in	'my whole body'
takki	'leg'	taktakki	'legs'
ulu	'head'	ululu	'heads'

Here, it is either the first CV or CVC which is reduplicated, and the reduplicating affix appears at the right of the base. 'C' will refer to the consonant while V refers to the vowel.

b. Root reduplication

Ngie:

à-nɨ̀	'ant'	à-nɨ̀nɨ̀	'ant'
à-jɪ̀	'fly'	à-jɪ̀jɪ̀	'fly'
ū-nɨ̀	'ants'	ù-nɨ̀nɨ̀	'ants'
ī-kwɛ̀ŋ	'millipede'	ī-kwɛ̀ŋkwɛ̀ŋ	'millipede'

Here, the base is made up of two morphemes, a prefix and a root. It is the root that is reduplicated. Hence, it is a situation of partial reduplication. The reduplicant appears at the right of the base.

c. A whole word reduplication:

Ngie

ī-ɣáp	'palm trees'	ī-ɣábī-ɣáp	'full of palm trees'
ū-nĕ	'water'	ū-né-ū-né	'full of water'
ā-tə̀w	'head'	ā-tə̀w -tə̀w	'has a big head'
ī-bə́k	'holes'	ī-bə́gī-bə́k	'full of holes'

With this one, it is the whole word that is reduplicated and the movement is to the right of the base.

The reduplicated words may have an idiosyncratic meaning as found in (30c) above. This means that the melodic material may have meaning that is different from the meaning of the base. This applies to example (30c) because the nouns reduplicated become adjectives having meanings that are different from those of nouns.

Hence, reduplication is both partial (see 30a,b) and complete (see 30c). It can take place to the right of the base as a suffix, to the left as a prefix and inside the base as an infix (Andrew Spencer 1991:156). These characteristics vary from language to language. Below are some examples to illustrate the above mentioned characteristics of reduplication taken from Spencer's work.

31. a. Reduplication inside the word (Spencer 1991)

Classical Greek (Zukova 1980:42-3)

alofa	a-lo-lofa	'love'
maliu	ma-li-liu	'die'
nofo	no-nofo	'strike'
moe	mo-moe	'sleep'

From the examples above, it is "lo", "li","no" and "mo" that have been reduplicated. These reduplicated segments are found inside the word. That is why the morphemes formed by this process are called infixes.

b. Reduplication to the right.

Palan Koryak (Zukova 1980:42-3)

wiru	wiru-wir	'seal'
jine	jine-jin	'mist'
mətq	mətq-mət	'fat

For reduplication to the right, the reduplicated string moves to the right of the base as shown above.

The tones of the reduplicate may be similar or different from those of the base.

Ngie

a) Cases with similar tones

ī-ɣáp	'palm trees'	ī-ɣáb ī-ɣáp	'full of palm trees'
sú	'fish'	súsú	'full of fish'
ū-né	'water'	ū-né w-né	'full of water'
dwí	'clothes'	dwí dwí	'full of clothes'

b) Cases with different tones.

ī-sī	'to keep'	ī-sī.w-sí-y	'to keep fast'
ī-kɔ̄n	'to plant'	ī-kɔ̄n.ī-kɔ́n-í	'to plant fast'
ī-zɔ̄n	'to buy'	ī-zɔ̄n.ī-zɔ́n-í	'to buy fast.

In most cases, reduplication leads to resyllabification of words. Resyllabification will be a situation where two or more words are pronounced as one and the end of one serves as the beginning of the other. Below are some examples from Ngie.

33. ī-jəgī-jág-í ---> ī-jə̄:gī-ijə́:g-í 'to eat fast'
ā-sɔ̄n-ā-sɔ̄ŋ ---> ā-sɔ̄n:ŋā-:sɔ̄ŋ 'full of teeth'
ā-zɛ́rā-zɛ́t ---> ā-zɛ́:rā:zɛ́t 'too much'

From the examples above, the colon (:) shows the various syllables that each word contains. Hence, the end of one word serves as the beginning of the other.

3. Reduplication As An Aspect of Ngie

As earlier mentioned, reduplication is a morphophonological process where words are formed by doubling part or an entire word. This type of affixation sometimes leads to a change in meaning of the words. Reduplication is therefore a morphological, a phonological and a semantic process.

This reduplication activity varies from language to language. In some languages, it occurs in verbs, in some it occurs in adjectives and/or adverbs, while in some, it occurs in nouns.

In Ngie, reduplication takes place in nouns, verbs, adjectives and adverbs. Reduplication in this language is both partial and complete and the movement is to the right of the base, forming suffixes.

1) núm ---> nùmī-núm-í 'take quickly'
kwì ---> kwìkwì 'full of maize'
zón ---> zónī-zón-í 'buy fast'
ā-fír-í ---> ā-fír-í ā-fít 'the black one'
à-ǹ̀ ---> à-ǹ̀ǹ̀ 'ant'
à-jì ---> à-jìjì 'fly'

3.1 Partial Reduplication in Ngie

Partial Reduplication deals with the repetition of part of the word either to the right or the left of the base.

Although partial reduplication exists in Ngie, it is used in a limited number of words. It is an aspect that occurs only in nouns and it is used in the naming of certain animals. Both the singular and the plural nouns are reduplicated. Some of the words reduplicated by this means include:

A		B	
à-nɨ̀	'ant'	à-nɨ̀nɨ̀	'ant'
ù-nɨ̀	'ants'	ù-nɨ̀nɨ̀	'ants'
à-jì	'fly'	à-jì jì	'fly'
ɪ̄-kwèŋ	'millepede(s)'	ɪ̄-kwèŋkwèŋ	'millepede(s)'
ɪ̄-dō''	toad(s)	-dō'' dō''	'toad(s).

It is the root that is reduplicated and the reduplicant appears at the right of the base. The meanings of words remain unchanged after reduplication. This is because the words that were first created in the language were the reduplicated words. Then, as time went on, with the evolution of the language, speakers of Ngie began to reduce the reduplicated segment as shown in 'A' above. In any case, the meaning of the words remain unchanged. Hence, instead of

saying 'à-nènè ', some of the speakers will say ' à-nè '. Since the un-reduplicated forms were unpopular amongst these speakers, they were used only when the things referred to were present during their conversation. In any case, as time went on, all speakers became used to these two forms and they can now be used at any time.

3.2. Complete Reduplication in Ngie.

Complete reduplication is very common in Ngie. This complete reduplication occurs when a whole word is repeated to give some particular meaning to the word in process. In Ngie it occurs in the open class of lexical items. It is both a morphophonological process as well as a semantic process.

3.2.1. Complete Reduplication As A Morphological process in Ngie.

Morphology deals with the formation of words. It deals with how morphemes combine to form words.

In Ngie, reduplication is an affixation process whereby a word is formed through a repetition of the whole word. The base is repeated and the movement is to the right, forming suffixes. Hence, new words are formed through the use of two or more morphemes. The suffixes formed through

this means bring about a change in meaning and word class in nouns

3) ī-ɣáp	'palm trees'	ī-ɣáb ī-ɣáp	'full of palm trees'
ā-kɔ́n	'beans'	ā-kɔ́n ā-kɔ́n	'full of beans'
ū-tə́w	'heads'	ū-tə́w tə́w	'full of heads'
ā-tə́w	'heads'	ā-tə́w tə́w	'has a big head'

From these examples, nouns change into adjectives, performing the function of adjectives in sentences (See 3.3.2)

In verbs, adjectives and adverbs, reduplication leads to a change in mood.

4) kɔ́n	'plant'	kɔ́nī-kɔ́n-ī	'plant fast'
kāb-ā	'seach'	kāb-ā ī-kāb-ā	'search quickly'
nɔ̀m	'hot'	nɔ̀mī-nɔ̀m-ì	'very hot'
ā-nɨ́ŋ	'high'	ā-nɨ́ŋā-nɨ́ŋ	'higher'
ā-jɪ̀m	'back'	ā-jɪ̀m ā-jɪ̀m	'backwards'

3.2.2. Complete Reduplication as a Phonological Process.

Phonologically, reduplication is handled by a set of rules which have the effect of copying the base to the right, forming suffixes. There is therefore no arbitrary grouping of words in Ngie, since these words are

reduplicated, respecting the phonological rules of the language. That is why during the reduplication process, many phonological activities take place and these include:

a) Respect of the syllabic structure of the language. This is seen in the fact that word structures which do not exist in the language are not imposed during the reduplication process.

For instance, there are no vowel clusters either in the beginning or the end of the word and this is respected during reduplication. This is evident in verbs where [i] is prelinked at the word final position of the reduplicant, but when this [í] comes after a vowel, it changes in to a [y]. This is to avoid a distortion in the language since there are no vowel clusters at the end of the word.

5) síī-sí-i ---> sīy-sí-y 'keep quickly'
kōní-kóní ---> kōní-kón-í 'plant fast'
jəgī-jəg-í ---> jəgī-jəg-í 'eat fast'
čáī-čáí ---> čáy-čá-y 'send quickly'

It is important to note here that [i] does not change at word medial position. This makes the resyllabification of words to be possible: this is a very common phenomenon during reduplication.

ii) Again, the sound system of the language is respected.

For instance, some voiceless sounds become voiced after reduplication. These sounds include [t],[p] and [k].

6) -jə́k ---> jə́gī-jə́g-í 'eat fast'

ī-ɣáp ---> ī-ɣáb ī-ɣáp 'full of palm trees.'

ī-bə́k ---> ī-bə́gī-bə́k 'full of holes'

ā-zɛ́t ---> ā-zɛ́ɾ a-zɛ́t 'too much'

iii) Reduplication does not only end with the melodic material. It extends to the activities of the tones and this can only be analysed phonologically. For instance, in nouns and adverbs, tones are copied alongside the melodic material, but in verbs and adjectives while some tones are copied, some are not. This is illustrated in the data that follows.

3.2.3. Complete Reduplication as a Semantic Process in Ngie

Semantics deals with meaning. Its importance, as far as reduplication in Ngie is concerned varies, according to the various word classes. In nouns, the suffixes formed bring about a change in meaning (see 3). In verbs, adverbs and adjectives, these suffixes add more meaning to the word in process. (See 4).

Generally, complete reduplication in Ngie is used for emphasis, comparison and exaggeration. The importance

of each of these aspects varies according to the various word classes.

Hence, reduplication is a phonological, morphological and a semantic process with the importance of each of these processes varying according to the various word classes.

For the treatment of this reduplication in Ngie, data have been collected. These data have been divided and treated according to the various word classes. This division is based on the number of words in each class and the syllabic nature of each of the classes.

3.3. Reduplication in Nouns

Reduplication is a very common phenomenon at this level. It occurs in both nouns and noun phrases.

In most cases, it is the plural noun that is reduplicated, although there are a few cases where both the singular and the plural forms of the noun are reduplicated, depending on the context.

Reduplication in nouns moves to the right of the base forming suffixes. The formation of these suffixes bring about a change both in meaning and in word class.

At this level, tones are copied with the melodic material. Reduplication in nouns sometimes leads to the resyllabification of words.

Reduplication in nouns is therefore a semantic, a

phonological and a morphological process and it will be analysed from these perspectives.

3.3.1. Data of Complete Reduplication in Nouns.

In order to ease an understanding of this work, a set of data has been collected. This data will be divided first into nouns and noun phrases and then, into syllables. Hence, the first three data are data of simple words, while the last is that of noun phrases. Prefixes and suffixes are not considered during the syllabic division.

3.3.1.1. Data of Monosyllabic Nouns.

Words		Reduplication	Meaning
Ngie	English	Ngie	English
bâ	people	bâbâ	full of people.
sú	fish	súsú	full of fish.
bī	palm nuts	bībī	full palm nuts.
bɛ̄w	dogs	bɛ̄w bɛ̄w	full of dogs.
ɲôŋ	hair	ɲôŋ ɲôŋ	full of hair.
dwí	clothes	dwí dwí	full of clothes.
kwì	maize	kwì kwì	full of maize.
bùgì	goats	bùgì bùgì	full of goats.
bɛ́t	war	bɛ́t bɛ́t	warlike. warfare.

nî	animals	nî nî	full of animals.
jœw	bees	jœ́w jœ́w	full of bees.
ī-ɣáp	palm trees	ī-ɣáp ī-ɣáp	full of palm trees.
ā-kɔ́n	beans	ā-kɔ́n ā-kɔ́n	full of beans.
ī-wɛ́ŋ	firewood	ī-wɛ́ŋ ī-wɛ́ŋ	full of fire wood.
ā-bœ̄	kola nut	ā-bœ̄ ā-bœ̄	full of kola nut.
ì-nàn	birds	ì-nàn ì-nàn	full of birds.
ū-né	water	ū-né ū-né	full of water.
ū-nâm	lamps	ū-nâm ū-nâm	full of lamps.
ī-bák	holes	ī-bág ī-bák	full of holes.
ū-sø	pepper	ūsø ū-sø	full of pepper.
ū-ŋát	oil	ū-ŋát ū-ŋát	full of oil.
ū-kɛ́ŋ	crabs	ū-kɛ́ŋ ū-kɛ́ŋ	full of crabs.
ū-káp	money	ū-káb ū-káp	full of money.
ū-zɨ́''	yams	ū-zɨ́'' ū-zɨ́''	full of yams
ā-nɔ̄m	men	ā-ʰɔ̄mā-nɔ̄m	full of men
ī-bûm	stomach	ī-bûmī-bûm	has a big stomach
ù-čə́w	mouth	ù-čəw-čəw	has a large mouth
ī-tɔ̄ŋ	navel	ī-tɔ̄ŋī-tɔ̄ŋ	has a big navel
ū-kɔ̄n	tail	ū-kɔ̄nū-kɔ̄n	has a long or big tail
ā-bán	breast	ā-bánā-bán	has big breasts
ā-nə́m	blood	ā-nə́mā-nə́m	full of blood, bloody
ā-sɔ̄n	teeth	ā-sɔ̄nā-sɔ̄n	has many teeth
ā-tə́w	head	ā-tə́wā-tə́w	has a big head
ū-təw	heads	ū-tə́ū-tə́w	full of heads
ī-kɔ̄n	tails	ī-kɔ̄nī-kɔ̄n	full of tails

3.3.1.2 Data of words with two or more syllables

Words		Reduplication		Meaning
Ngie	English	Ngie		English
ù-kwèbà	lizards	ù-kwèbà ù-kwèbà		full of lizards
ī-søbɔ́m	alligator-pepper	ī-søbɔ́mī-søbɔ́m		full of alligator pepper
ū-ŋwèrè	potatoes	ū-ŋwèrè	w-ŋwèrè	full of potatoes
ù-ŋwànà	books	ù-ŋwànà	w-ŋwànà	full of books
ù-fùrì	sacks	ù-fùrì	w-fùrì	full of sacks
ū-tánī	irons	ū-tánī	w-tánī	full of iron
ù-bàmì	bags	ù-bàmì	w-bàmì	full of bags
à-bànà	hatred	à-bànà	w-bànà	full of hatred
ī-ɣá''á	joy	ī-ɣá''á	y-ɣá''à	full of joy
ù-kàsīrà	cassava	ù-kàsīrà	w-kàsīrà	full of cassava
ù-námàsì	oranges	ù-námàsì	w-námàsì	full of oranges

3.3.1.3 Data of noun phrases

sú ì-zù	fresh fish	sú y-zùsú y-zù	full of fresh fish
dwí ī-bāŋā	red clothes	dwí y-bāŋādwì y-bāŋā	full of red clothes

ū-zɨ''ū-fú	white yams	ū-zɨ''ū-fúw-zɨ''ū-fú	full of white yams
ì-nàn ī-fír-í	black birds	ì-nàn ī-fír-í ì-nàn ī-fír-í	full of black birds
ū-zát ū-káŋ	big trees	ū-zát ū-káŋū-zát ū-káŋ	full of big trees
ā-kɔ́n à-zú	fresh beans	ā-kɔ́n à-zú ā-kɔ́n à-zú	full of fresh beans

3.3.2 Data Analysis.

After glancing at the data, the most obvious question will be whether the movement of reduplication is to the left or to the right of the base. Many factors will account for this.

First, the fact that this reduplication is a complete reduplication and there is no difference between the structures of the two words makes it difficult for the direction of movement of the reduplicant to be determined.

Again, the melodic material has been copied alongside the tones so that there is just no way one can determine the direction of movement from the tones.

Moreover, there are no preassociated morphemes at any section of the reduplicant, neither are there any sounds motivated by the syllabic template of the reduplicant to determine the direction of movement.

In any case, this is a difficult question to answer. To say that the movement is to the right of the base because the rest of the reduplicated words in Ngie move to the right of the base will not be convincing to many linguists because the reduplication activity varies with word class and in some cases, it even varies with the words.

Again, some people will argue that, since in the rest of the work, suffixes do not bring about a change in meaning, it is most likely that the movement is the left of the base forming prefixes which bring a change in meaning in these nouns.

Well, the answer to this question is clear. In Ngie, there are no words consisting of more than one prefix. Again, nouns that start with consonants are assumed to have a ø-prefix. Since all nouns in this language have prefixes, and there are no cases of words having two or more prefixes, it is obvious that the movement of the reduplication is to the right of the base forming suffixes. This then can be supported by the fact that the rest of the reduplicated words in this language shift to the right of the base.

In most cases, it is the plural form of the noun that is reduplicated, though there are a few cases where both the singular and the plural can be reduplicated depending on context. This concerns mostly the names of the various parts of animals (see 3.3.1.2). This reduplication of singular nouns takes place in simple words. In noun

phrases, it is the plural forms of the words that are reduplicated. (See 3.3.1.4).

Semantically, complete reduplication in nouns leads to a change in word class. When a noun is reduplicated, it loses its qualities as a noun and assumes those of an adjective. This is true in that these nouns can neither be the subject nor the object of a sentence.

7.a. i) ā-nɔ̄m ā-ɣə̄ mbə̂ à-kʉ̀ŋ

men the are here

'The men are here'

ii) *ā-nɔ̄m ā-nɔ̄m ā-ɣə̄ mbə̂ à-kʉ̀ŋ

men men the are here

*'Full of men are here'

b. i) ū-ŋə́t mbə̂ à-bàŋ-à

oil are red

'oil is red'

ii) *ū-ŋə́t ū-ŋə́t mbə̂ à-bàŋ-à

oil oil are red

*'Full of oil is red'

c. i) mə̂-jə̀k ū-sɨ́

I eat pepper

'I ate pepper'

ii) *mə̂-jə̀k ū-sɨ́ ū-sɨ́

I eat pepper pepper

*'I ate full of pepper'

Hence, instead of functioning as nouns, these nouns function as adjectives.

8.a. ā-síŋ ā-ɣə̄ bà bâ bâ
place the only people people
'the place is full of people'

b. ā-bà ā-táw táw ābū wâ ùŋù
only head head with person this
'this person has a big head'

Therefore, the 'bâ bâ' and ā-táw táw are used to describe the 'place' and the 'person' respectively.

Again, just as there are no words that are meaningful outside context in most languages, so too are the reduplicated words in Ngie. For example, ā-bœ̄ ābœ̄ may mean 'to be full of kola nuts' (in a place where only kola nuts have been planted or kept). It may also mean 'to be dominated by kola nuts' (in a situation where these kola nuts have been planted or kept with other things). This aspect exists in noun phrases as well. For instance,'ā-kón à-zù ā-kón à-zù' will mean 'to be dominated by fresh beans' or 'to be full of fresh beans' depending on the context.

Reduplication in nouns is used for comparison, emphasis and exaggeration. This is evident in the use of ā-bā (only) in all the contexts in which the reduplicated words appear. This "only" means solely or alone.

9.a. ā-bā ū-né ā-nā''

only water in house

'there is only water in the house'

In Ngie, when "only" comes immediately before reduplication in a sentence, it does not necessarily stand for "solely" or "alone."

10. b. ā-bà ā-táw ā-táw ābū wâ ùŋù

only head head with person this

'this person has only a head'

The above sentence in Ngie means that the head is what makes the person, but, we know that there is no person who is made up of only a head. Therefore,'only' is used to emphasize the size of the head in comparison with the other parts of the body. To a native speaker of Ngie, the rest of the body is insignificant when compared with the head of that person. Reduplication, therefore, does not only exaggerate, but it is also used as an abuse especially when comparing parts of the body.

In any case, it is not in all cases where reduplication is used that there is the aspect of exaggeration and abuse.

11. ā-bā ī-ɣáb ī-ɣáp ā-sīŋ ā-ɣə̄

only palm palm place the
trees trees

'the place is full of palm trees'

This sentence may mean that the whole place is full of palm trees in a place where only palm trees have been kept or planted.

Phonologically, there are some alternations between voiced and voiceless sounds. For example, [b] alternates with [p] and [k] alternates with [g]. The liquid [r] also alternates with [t]. The nouns with these alternations are very few.

12. ī-bák 'holes'	ī-bág ī-bák	'full of holes'
ī-ɣáp 'palm trees'	ī-ɣáb ī-ɣáp	'full of palm trees'
ū-káp 'money'	ū-káb ū-káp	'full of money'
ū-ŋət 'oil'	ū-ŋár ū-ŋət	'full of oil'

There are two possible rules to account for the alternation between [b] and [p].

(1) p --> b / V -- V

This rule states that /p/ becomes [b] intervocalically.

(2) b --> p / --#

This rule says that /b/ becomes [p] at word final position.

In fact, these two rules are not all correct. The following are some words in Ngie which have [p] at intervocalic position:

13. ī-pə̄ 'to tear'
    i-pâ'' 'cloud'
    ī-pâ'' 'bat'

Therefore, the first rule does not apply in all situations in Ngie. The second rule is therefore correct because [b] does not appear at word final position in any word in Ngie. It always appears at word initial and medial positions.

14. ā-bón 'farm'
    ī-bī 'palm nut'
    ā-bœ̄ 'kola nuts'
    bâ 'people'
    bɛ̀ɯ 'dog'

Hence, the first rule got from the data is:

b --> p / --#

The rule in distinctive features will be:

```
-son
-cont
+ant      --> [-vd] / -- #
-cor
+vd
```

Again. there are two possible rules for the alternation between [g] and [k].

(1) k --> g / V -- V

The rule states that /k/ becomes [g] at intervocalic position

(2) g --> k / --#

The rule states that /g/ becomes [k] at word final position.

Again. there is a problem with the first rule. This is because there are many words in Ngie having [k] at word intervocalic position. Some of these words include:

15. ū-kə̂n 'message'

ī-kɔ́n 'beds'

ì-kwì 'maize'

ì-kʉ̀ŋ 'nest'

The second rule is therefore correct because there is no word in Ngie having [g] at word final position. Instead, it is [k] that always occurs at word final position.

16. ũ-zāk 'cloth (to carry a baby)'
    ì-ɲìək 'sheep'
    ī-jək 'food'

Therefore, the rule is:

ɡ --> k / --#

The rule in distinctive features reads:

```
-son
-cont
+hi     --> [-vd] / -- #
+bk
+vd
```

As is the situation with the other alternations, there are also two possible rules for the alternation between [t] and [r]:

(1) t --> r / V -- V

This rule says that /t/ becomes [r] at word intervocalic position.

(2) r --> t / --#

This rule says that /r/ becomes [t] at word final position.

The first rule cannot be correct because [t] appears in many contexts at intervocalic position.

17. ī-tà 'friend'
    à-tɔ̌ŋ 'ear'
    ā-təw 'head'
    à-tù̀ŋ 'grasshopper'
    ī-tú 'wine'

Therefore, the first rule is wrong. The second rule is correct because, even though we find [r] at intervocalic position, there is no situation where one can find this [r] at word final position in Ngie.

Hence, the rule is:

r --> t/ --#

In distinctive features, this rule will be:

```
+son
-nas
-lat                  -vd
+cor      --->        -cont  /  -- #
+cont                 -son
+vd
```

This [r] that alternates with [t] is underlyingly /d/. The reason is that [d] and [r] are in complementary distribution when we compare the environment in which the two sounds appear. Although they both appear at word medial position, the environment in which they appear are different. This is shown in the data below.

18. a.	ā-dí''	'smoke'	b.	ā-fír-í	'the black one'
	ù-dà	'cutlass'		ā-zɛ́rā-zɛ́t	'too much'
	ā-dó''	'throat'		màrá	'finish'
				kārá	'hang'
				ū-ŋə́r ū-ŋə́t	'full of oil, oily'

From the data above, two rules can be established:

(1) d --> r / CV --

The rule says that /d/ becomes [r] when it follows a consonant and a vowel sequence.

(2) r --> d / V --

The rule says that /r/ becomes [d] when it follows a vowel. In any case, it is the first rule that is correct. This is because [r] and [t] do not form a natural class of sounds. Hence, [r] underlyingly is /d/ with the rule:

d --> r / CV --

The rule in distinctive features will read:

```
-son
-nas
-lat
+cor      -->  +cont / C V ----
-cont          +son
+vd
```

Since it is [d] that changes into [r], the following words having [r] will be represented underlyingly as follows:

19. ā-fír-í:	/ā-fíd-í/	'the black one'
ā-zɛ́rā-zɛ́t:	/ā-zɛ́d ā-zɛ́t/	'too much'
màrá:	/mādá/	'finish'
kārá:	/kādá/	'hang'
ū-ɲárū-ɲát:	/ū-ɲád ū-ɲát/	'full of oil, oily'

Hence, the alternation between [r] and [t] can be considered as the [d] and [t] alternation. Hence, the rule that will account for this alternation will be:

d --> t / --#

This rule in distinctive features will be:

```
-cont
-son
-nas
-cor      --> [-vd]/ --- #
+vd
-lat
```

Hence, the alternation between [t] and [d], [k] and [g], and finally [p] and [b] can be merged into one rule called the Devoicing rule. This rule stated in distinctive features will be:

```
-son
-cont    -->  [-vd] / --#
+vd
```

Reduplication in Ngie also leads to gliding. This is evident in that some vowels become consonants as a result of this type of word formation.There is [u̯] which becomes [w] in the following words:

```
ù-kwèbaù -kwèbà   -> ù-kwèbàwkwèbà        " full of lizards"
u-ŋwèrèù-ŋwèrè    -> ù-ŋwèrèwŋwèrè        " full of potatoes"
ù-ŋwàn à ù-ŋwànà ->ù-ŋwànàwŋwànà         " full of books "
```

A rule to account for this phonological change can therefore be:

u -> w / v-

This rule states that [u] becomes [w] when it follows a vowel.

In any case, this gliding does not end with reduplication. There are still many words in Ngie which still have this aspect of gliding.

Some of these words include:

```
ā-tə̄u  -> ā-tə̄w        " head"
ù-čəu   -> ù-cəw        " mouth"
u-kùèbà -> ù-kwèbà      " lizards"
ù-ŋùèrè -> ù-ŋwèrè      " potatoes"
```

Therefore, the rule stated above is incomplete. If we take the words noted above into consideration, we will discover that gliding does not only occur when [u] follows another vowel. Hence, another rule has been developed, which is as follows:

u -> w / Vo Co -- Vo

This rule states that [u] becomes [w] when it is preceded by a vowel or when it appears intervocallically , or when it appears between a vowel and a consonant. This rule in distinctive features will be:

```
+son
-cons      [ -syll ]
+back  -> [ +cons ] / Vo Co -- Vo.
+high
+rd
+vd
```

From the rule therefore, we discover that gliding takes place when [u] is either preceded or follow by a vowel. Hence, we can simplify the rule to be as follows:

u -> w / v-
-v

This rule states that [u] becomes [w] when it is either preceded a followed by a vowel. The rule in distinctive features will be:

```
+son
-cons   ->  +syll    /     v-
+back       +cons          -v
+high
+rd
+vd
```

Apart from the gliding stated above, there is also gliding where [i] becomes [y], as is evident in the words below.

ā-ɣáʔá i-ɣáʔá -> ī-ɣáʔyɣáʔá "full of joy"
súì-zù -> sûyzù
More of these examples will be seen in verbs.

A rule that can be established from these examples will read as follows.
i -> y / v-

This rule states that [i] becomes [y] when it is preceded by a vowel.In any case, this rule is incomplete because like [u] , [i] also glides in other environments as shown below.

ŋgìɛ̀i ->ŋgyɛ̀y " pig"

āiē ->āyē " woman "

Hence. the rule stated above is incomplete. A complete rule will then be as follows.

i -> y / Vo Co -- Vo.

This rule states that [i] become [y] when it appears either intervocally , or when it appears after a vowel or when it appears between a vowel and a consonant.
Like the [u] gliding rule, this rule can be simplified as follows:

```
i  ->  y /  v-
           -v
```

This rule states that [u] becomes [w] when it is either preceded or followed by a vowel.

The rule in distinctive features is:

```
+son
-cons   ->   +cons      v-
-back        -syll      -v
-mid
+high
-rd
+vd
```

CHAPTER 4

4. Reduplication in Verbs, Adjectives and Adverbs

It is complete reduplication that takes place at the above-mentioned levels. Like in nouns the reduplicating affix appears at the right of the base forming suffixes. These suffixes bring about a change in mood. Hence, like in nouns, reduplication at these levels is a morphological, a phonological and a semantic process.

In order to illustrate this, sets of data have been collected and analysed according to the various word classes, beginning with verbs.

4.1.1 Reduplication in Monosyllabic Verbs

It is the imperative verb that is the base during reduplication. This is because when the infinitive marker is deleted in verbs, these verbs undergo certain changes to take the imperative form. (See 2.2). Therefore these forms appear as the base during reduplication.

These imperative verbs consist of monosyllabic and disyllabic words and they will be analysed from this perspective. Hence, the data on verbs has been divided into two parts: monosyllabic and disyllabic verbs. Prefixes and suffixes are not considered during the syllabic division.

Words		Reduplication Meaning	
Ngie	English	Ngie	English
bé	put to birth	bé y-bé-y	put to birth fast
kú	die	kúy-kú-y	die fast
pɨ́	tear	pɨ́y-pɨ́-y	tear fast
bín	dance	bínī-bín-í	dance fast
tán	count	tánī-tán-í	count fast
sí	keep	síy-sí-y	keep fast
kón	plant	kónī-kón-í	plant fast
núm	take	númī-núm-í	take quickly
zón	buy	zónī-zóní	buy fast
sɔ́	suck	sɔ́y -sɔ́-y	suck fast
zín	see	zínī-zín-í	see quickly
jə́k	eat	jə́gī-jə́g-í	eat fast
sáp	sharpen	sábī-sáb-í	sharpen quickly
tém	stand	témī-tém-í	stand fast
tát	lie	tárī-tár-í	lie quickly
zɔ̄n-ɔ̄	fight	zɔ̄n-ɔ̄y-zɔ̄n-ɔ̄	fight quickly
kār-ā	hang	kār-āy-kār-ā	hang quickly
nɔ̄r-ɔ̄	run	nɔ̄r-ɔ̄y-nɔ̄r-ɔ̄	hasten
fɛ̄r-ɛ̄	mix	fɛ̄r-ɛ̄y-fɛ̄r-ɛ̄	mix quickly
bə̄g-ə̄	appear	bə̄g-ə̄y-bə̄g-ə̄	appear quickly
kāb-ā	search	kāb-āy-kāb-ā	search quickly
sɔ̄n-ɔ̄	harvest	sɔ̄n-ɔ̄y-sɔ̄n-ɔ̄	harvest quickly

nā?-ā	give	nā?-āy-nā?-ā	give quickly
zɛ̄ŋ-ɛ̄	vomit	zɛ̄ŋ-ɛ̄y-zɛ̄ŋ-ɛ̄	vomit quickly
čāb-ā	protect	čāb-āy-čāb-ā	protect fast

4.1.2 Reduplication in disyllabic verbs

Words		Reduplication	Meaning
Ngie	English	Ngie	English
čārā	greet	čārāy-čārā	greet fast
čɔ̄mɔ̄	sit	čɔ̄mɔ̄y-čɔ̄mɔ̄	sit fast
kɔ̄nɔ̄	think	kɔ̄nɔ̄y-kɔ̄nɔ̄	think fast
bɛ̄rɛ̄	wed	bɛ̄rɛ̄y-bɛ̄rɛ̄	wed fast
zā?ā	come	zā?āy-zā?ā	come quickly

4.1.3. Data Analysis

From the data above, the reduplicant in monosyllabic and disyllabic verbs always has a pre-associated sounds at the word initial position. These sounds are [i] and [y]. Again, all monosyllabic verbs without suffixes also have these same sounds associated at their word final positions.

From the data, one finds that [i] and [y] appear at different environments. While [i] appears immediately after consonants, [y] appears immediately after vowels, both at

word final position. Therefore, these two sounds are in complementary distribution. In order to find the underlying sound, two possible rules can be used

1) v ---> i/C---.

This rule states that [v] becomes [i] after a consonant.

2) i ---> y/V---

This rule states that [i] becomes [y] after a vowel at word final position.

In Ngie, vowel clusters are not very are not very common. Therefore, the second rule applies to the language more than the first. Therefore, it is [i] that is pre-associated at word final and word initial positions of the reduplicant.

Since vowel clusters are not common in Ngie,whenever an [i] comes after a vowel,it changes into a [v].This pre-associated vowel at word final position of the reduplicant occurs only in monosyllabic verbs without suffixes.

Apart from the alternation between [i] and [v], some consonants also alternate. There is an alternation between [b] and [p], [k] and [g], and finally, [r] and [t]. This alternation comes about as a result of the fact that this language respects certain phonological rules. One of such

rules is the devoicing rule which states that voiced consonants become voiceless at word final position (see 3.3.2). This applies to these alternations because they are all voiced sounds becoming voiceless at word final position. Some words affected by this alternation include:

1. sáp --> sábi-sáb-í 'sharpen quickly'
   jək --> jəgī-jəg-í 'eat quickly'
   tát --> tárī-tár-í 'lie quickly'

In Ngie, just as an imperative verb can form a complete sentence (see 2.2), reduplicated verbs can do the same, but this occurs only when these verbs are still in the imperative form.

2.a. nɔ̄r-ɔ̄v-nɔ̄r-ɔ̄
     run run
     'run'
  b. tém ī-tém-í
     stand stand
     'stand'

Unlike in imperative verbs where such sentences are used in a situation of command, the above sentences serve as exhortation to the subject.

These verbs can also be preceded by nouns.

3.a. à-kò , nɔ̄rɔ̄y-nɔ̄rɔ̄

Ako run run

'Ako, hasten'

b. à-kè kār-ā y-kār-ā

Ake hang hang

'Ake, hang it!'

The above examples are used in a situation of command.

It is possible to use these verbs in interrogative sentences. When they are used in such sentences, there is always some elements of surprise.

4.a. ù-mà bùgè jágī-jág-í

he be still eat eat

'is he still eating?'

b. ù-mè bùgè pín ī-pín

he be still arrive arrive

'is he just arriving?'

Apart from the examples mentioned above, these verbs can be used in the future and in the past.

When they are used in the future, there is always an aspect of comparison. Here, you forgo one thing for another.

5.a. à-wi jí ī-jí ākəčùŋ

I will steal steal today

'I will prefer to steal today'

b. à-wi čómó ī-čómó āsúgé

I will sit sit tomorrow

'I will prefer to sit tomorrow'

From the above examples, when jíī-jí (to steal) is used, it is in comparison with some other thing. It may be, in the past, the speaker has either been begging or borrowing. Hence, he is saying that, instead of doing that, he will steal.

These verbs too can be used in the past.

6.a. ù-mə̀ ŋúī-ŋú-y

he be go go

'he has just gone'

b. ù-mə̀ pínī-pín-í

he be arrive arrive

'he has just arrived'

Hence, apart from the fact that these verbs cannot occur in the present, they occur in both past and future situations. They are also used in imperative and interrogative sentences as shown in 3, 4.

Although it is the imperative verb that is reduplicated, an infinitive reduplicated verb can then be

derived through the insertion of the infinitive marker at word initial position of reduplicated words. The tones of the words also change.

Here are some reduplicated imperative verbs changed into infinitive reduplicated verbs:

7. Table

Reduplicated Verbs		Meaning
Imperative	Infinitive	English
bé ī-bé-y	ī-bē-y-bé-y	to put to birth fast
bínī-bín-í	ī-bīnī-bín-í	to dance fast
sóī-só-y	ī-sō-y-só-y	to suck fast
númī-núm-í	ī-nūmī-núm-í	to take quickly
čáī-čá-y	ī-čāy̌-čá-y	to send quickly
jágī-jág-í	ī-jāgī-jág-í	to eat fast
sábī-sáb-í	ī-sābī-sáb-í	to sharpen quickly
zɔ̄ŋ-ɔ̄v-zɔ̄ŋ-ɔ̄	ī-zɔ̄ŋ-ɔ̄v-zɔ̄ŋ-ɔ̄	to fight quickly
kār-āy-kār-ā	ī-kār-āy-kār-ā	to hang quickly
nɔ̄r-ɔ̄y-nɔ̄r-ɔ̄	ī-nɔ̄r-ɔ̄y-nɔ̄r-ɔ̄	to run fast
bāg-āv-bāg-ā	ī-bāg-āy-bāg-ī	to appear quickly
čāb-āv-čāb-ā	ī-čāb-āv-čāb-ā	to protect fast
kāb-āv-kāb-ā	ī-kāb-āy-kāb-ā	to search quickly

It is important to mention here that apart from the insertion of the infinitive marker, the melodic material remains unchanged. Hence, those verbs that have vowels inserted at their word final positions when changed from the infinitive form to the imperative form remain the same.

Here are some examples from the data to illustrate this:

8. Table

Verbs		Reduplication		Meaning
Infinit.	Imper.	Imperative	Infinitive	English
ī-zɔ̀ŋ	zɔ̄ŋ-ɔ̄	zɔ̄ŋ-ɔ̄y-zɔ̄ŋ-ɔ̄	ī-zɔ̄ŋ-ɔ̄y-zɔ̄n-ɔ̄	to fight fast
ī-kàt	kār-ā	kār-āy-kār-ā	ī-kār-āy-kār-ā	to hang fast
ī-nɔ̀t	nɔ̄r-ɔ̄	nɔ̄r-ɔ̄y-nɔ̄r-ɔ̄	ī-nɔ̄r-ɔ̄y-nɔ̄r-ɔ̄	to run fast
ī-kàp	kāb-ā	kāb-āy-kāb-ā	ī-kāb-āy-kāb-ā	to search quickly
ī-bə̀k	bə̄g-ə̄	bə̄g-ə̄y-bə̄g-ə̄	ī-bə̄g-ə̄y-bə̄g-ə̄	to appear fast
ī-čàp	čāb-ā	čāb-āy-čāb-ā	ī-čāb-āy-čāb-ā	to protect fast
ī-nà?	nā?-ā	nā?-āy-nā?-ā	ī-nā?-āy-nā?-ā	to give quickly

Like the imperative reduplicated verbs, the infinitive reduplicated verbs can also be used in sentences as shown below.

9.a. ì-jàgī-jág-í à-wà?-à à-nà mɔ̀

to eat eat is it thing any

'Just to eat, is it any thing?'

b. ī-nɔ̀r-ɔ̀ ī-nór-ó à-wà?-à ā-fà?-à mɔ̀

to run run is it work any

'just to run is it any job?'

Like in nouns, the melodic materials in verbs have no meanings outside their contexts. This is illustrated in the examples above. Again, there is no instance of gliding, vowel deletion or vowel coalescence.

The 'i' that appears in the reduplicate is a morpheme and it is used for emphasis.

There is also another type of reduplication in verb where the same word is repeated several times without the 'i' morpheme.

Examples

Words		Reduplication				Meaning
Ngie	English	Ngie				English
núm	take	núm	núm	núm	núm	to take repeatedly
jək	eat	jək	jək	jək	jək...	to eat repeatedly
só	suck	só	só	só	só...	to suck repeatedly

zɔ́n	buy	zɔ́n zɔ́n zɔ́n zɔ́n...	to buy repeatedly
tát	lie	tát tát tát tát...	to lie repeatedly

4.2. Reduplication in Adjectives

As earlier mentioned, it is complete reduplication that takes place in adjectives. The reduplicated affix appears at the right of the base, forming suffixes. This reduplication occurs in both monosyllabic and disyllabic words as seen in the data below.

4.2.1 a) Data of reduplication in monosyllabic words

Words		Reduplication	Meaning
Ngie	English	Ngie	English
kà	strong	kàĩ-ká-y	very strong
bù	soft	bùĩ-bú-y	very soft
nɔ̀m	hot	nɔ̀mĩ-nɔ́m-í	very hot
fù	white	fùĩ-fú-y	really white
zɛ̀ŋ	clean	zɛ̀ŋĩ-zɛ́ŋ-í	very clean
nùn	old	nùn ĩ-nún-í	very old
bàŋ	red	bàŋĩ-báŋ-í	very red
sà	tall	sàĩ-sá-y	very tall
fìt	black	fìrĩ-fír-í	very black
zùm	dry, pale	zùmĩ-zúm-í	very dry, pale
bə	bad	bəĩ-bə-y	very bad
nə̀m	sweet	nə̀mĩ-nə́m-í	very sweet
wɛ̀	intelligent	wɛ̀ĩ-wɛ́-y	very intelligent

4.2.1 b) Data of reduplication in disyllabic words

Words		Reduplication	Meaning
Ngie	English	Ngie	English
kàmà	smart	kàmàī-kámá	very smart
kɔ̀kɔ̀	fat	kɔ̀kɔ̀ī-kɔ́kɔ́	very fat
nìmì	nasty	nìmì ī-nímí	very nasty
nùgè	bitter	nùgèī-núgé	very bitter
fùgè	rotten	fùgè ī-fúgé	seriously rotten
dɔ̀tɔ̀	dirty	dɔ̀tɔ̀ ī-dɔ́tɔ́	very dirty

4.2.2. Data Analysis

Monosyllabic adjectives like monosyllabic verbs have pre-associated morphemes at word initial and word final positions of the reduplicant. [i] and [y] are pre-associated at word initial position and also at word final position of these reduplicants.

[y] and [i] alternate at these two positions. While [i] occurs at this position after consonants, [y] occurs at this same position after vowels. Hence, the two sounds are in complementary distribution. Hence, two possible rules can be used to find the basic sound:

1) v ---> i/C---#

The rule states that [y] becomes [i] after a consonant at word final position.

2) i ---> y/V---#.

This rule states that [i] becomes [y] after a vowel at word final position.

As seen in 4.1.2, there are no vowel clusters at word final position in Ngie. Therefore, it is obvious that it is [i] that becomes [y] after vowels at word final position. This is evident in the fact that it is the same [i] that is pre-associated at word initial position of the reduplicant.

Apart from the [i] and [y] alternation, [r] and [t] also alternate in:

fit 'black' and fìrī-fír-í 'very black'

This is as a result of one of the phonological rules in Ngie whereby some voiced sounds become voiceless at word final position. Therefore, voiced [r] becomes voiceless [t] at word final position. (See 3.3.2)

Reduplication in adjectives adds more meaning to the

words in process. The function of these words in a sentence does not change as shown below.

10.a. i) ā-kè wə sà

Ake is tall

'Ake is tall'

ii) ā-kè wə sàĩ-sá-y

Ake is tall tall

'Ake is very tall'

b. i) wâ à-ɣə wə wɛ

man the is intelligent

'the man is intelligent'

ii) wâ à-ɣə wə wɛĩ-wɛ́-y

man the is intelligent intelligent

'the man is very intelligent'

In Ngie, it is not only an adjective in its original form that is reduplicated. Adjectives having the prefixes of the nouns they modify can also be reduplicated as shown below.

4.2.2.1 Table

Words		Reduplication	Meaning
Ngie	English	Ngie	English
ā-bān-ā	red one(s)	ā-bān-ā-bān	the red one(s)
ū-bān-ā	red one(s)	ū-bān-ū-bán	the red one(s)
ī-bān-ā	red one(s)	ī-bān-ī-bān	the red one(s)
ā-fír-í	black one(s)	ā-fír-í-fít	the black one(s)
ū-fír-í	black one(s)	ū-fír-í-fít	the black one(s)
ī-fír-í	black one(s)	ī-fír-í-fít	the black one(s)
ī-čùn	good one(s)	ī-čùn ī-čùn	the good one(s)
ā-čùn	good one(s)	ā-čùn ā-čùn	the good one(s)
ū-čùn	good one(s)	ū-čùn ū-čùn	the good one(s)
ū-kén	big one(s)	ū-kén ū-kén	the big one(s)
ī-kén	big one(s)	ī-kén ī-kén	the big one(s)
ā-kén	big one(s)	ā-kén ā-kén	the big one(s)

From data 4.2.2.1. above one can see that 's' is embracketed at the end of each meaning in English. This is to show that adjectives in Ngie function both as singular and plural and the singular or plural form cannot be determined outside context. The reason for this is that adjectives use the prefixes of the nouns they modify and these adjectives also agree in number with these nouns. (See 25, 26).

Although there is a pre-associated [i] at word

initial position of the reduplicant of all adjectives, and at word final position of monosyllabic adjectives, (see 4.2.1.a,b) adjectives having the prefixes of the nouns they modify do not have this morpheme, instead, these adjectives are reduplicated alongside the prefixes as shown in data 4.2.2.1. The vowels that are inserted at word final position of some of the adjectives are not reduplicated during this process of reduplication.

Although in data 4.2.1 a,b, reduplication is used for emphasis, in data 4.2.2.1, reduplication is used for comparison.

11. wâ à-ɣə̀ wə̀ wɛ̀ī-wɛ́-y
    man the is intelligent intelligent
    'the man is very intelligent'
12. à-nàŋ ā-fír-í-fít
    cocoyam black black
    'the black cocoyam'

While wɛ̀i-wɛ́-y 'very intelligent' is used to emphasise the intellect of the man, à-fír-í āfít 'the black one' is used in comparison to either the red or the white cocoyam. Hence, reduplication at the level of adjectives is used both for comparison and for emphasis.

initial position of the reduplicant of all adjectives, and at word final position of monosyllabic adjectives. (see 4.2.1.a,b) adjectives having the prefixes of the nouns they modify do not have this morpheme. Instead, these adjectives are reduplicated alongside the prefixes as shown in data 4.2.2.1. The vowels that are inserted at word final position of some of the adjectives are not reduplicated during this process of reduplication.

Although in data 4.2.1 a,b, reduplication is used for emphasis, in data 4.2.2.1, reduplication is used for comparison.

11. wâ à-ɣè wè wɛ̀ī-wɛ́-y
    man the is intelligent intelligent
    'the man is very intelligent'
12. à-nàn ā-fír-í-fít
    cocoyam black black
    'the black cocoyam'

While wɛ̀i-wɛ́-y 'very intelligent' is used to emphasise the intellect of the man, à-fír-í āfít 'the black one' is used in comparison to either the red or the white cocoyam. Hence, reduplication at the level of adjectives is used both for comparison and for emphasis.

4.3 Reduplication in Adverbs.

As aforementioned, it is complete reduplication that takes place in adverbs. Like in nouns, verbs and adjectives, the reduplicant appears at the right of the base, forming a suffix.

Since adverbs are very few in Ngie the following data of seven words have been collected to illustrate reduplication at this level.

4.3.1 Data of reduplication in adverbs

Words		Reduplication	Meaning
Ngie	English	Ngie	English
ā-nɨ́ŋ	high	ā-nɨ́ŋ ā-nɨ́ŋ	higher
ā-čún	below	ā-čúŋ ā-čúŋ	below
ā-jìm	back	ā-jìm ā-jìm	backward
ī-yàt	side	ī-yàr ī-yàt	sideways
ā-kɔ́ʔɔ́	up	ā-kɔ́ʔɔ́ -kɔ́ʔɔ́	upward
à-sè	down	à-sè -sè	downward

4.3.2. Data Analysis.

Reduplication in adverbs do not lead to a change in word class. Instead, it adds more meaning to the word in process.

Again, like in nouns, verbs and adjectives, there is an alternation between [r] and [t]

14. ī-vàt 'side'

ī-yàrī-yàt 'sideways'

This is a phonological process whereby voiced [r] become voiceless [t] at word final position. (See 3.3.2.)

Reduplication in adverbs neither leads to a change in meaning nor does it lead to a change in word class. Instead, it adds more meaning to the word in process. That is why the adverb and the melodic material can still appear in the same context.

15.a. ča ā-nā́ŋ

send high

'send it high'

b. ča ā-nā́ŋ ā-nā́ŋ

send high high

'send it higher'

16. a. núm ī-yàt

take side

'take it by the side'

b. núm ī-yàr ī-yàt

take side side

'take it sideways'

CHAPTER 5

5. GENERAL CONCLUSION

Reduplication is a process that affects the open class of lexical items in Ngie. It affects nouns, verbs, adjectives, and adverbs. Both partial and complete reduplication take place in this language, and it is a phonological, a morphological, and a semantic process.

Phonologically, reduplication leads to the resyllabification of words. Resyllabification is a situation where two or more words are pronounced as one and the final consonant in one word serves as the onset of the first syllable in the following word. This is illustrated in chapter 3.

Again, there is an alternation between [i] and [y]. This is due to one of the two phonological rules in the language whereby [i] becomes [y] at word final position after a vowel.

a) i --> y / V --#

This rule in distinctive features is:

```
+son
-cons
-back   --> [+cons]  /  V -- #
+hi         [-syll]
-rd
+vd
```

Apart from the above mentioned alternation, there is also an alternation between some voiced and some voiceless sounds. The consonants [t], [k], and [p] alternate with [r], [g], and [b] respectively. In any case, it should be noted that [r] underlyingly is [d]. This is because [d] becomes [r] after a consonant and vowel sequence.

b) d --> r / CV --

The rule in distinctive features is:

```
-cont
+vd
-son            +cont
-lat      -->   +son     / CV --
+cor
-nas
```

Therefore, since they are all voiced sounds that become voiceless at word final position, a rule known as the devoicing rule was proposed. According to this rule, voiced consonants become voiceless at word final position.

c) [+vd] --> [-vd] / --#
C

This rule in distinctive features will be:

+cons
-cont
-son --> [-vd] / --#
+vd

With these three rules, it will be possible to find the phonetic representation and the underlying representation of any word from the data. Hence, ten words have been chosen from the data to illustrate this. These words include:

1) jə́k	'eat'
2) ī-ɣáp	'palm trees'
3) ī-bə́k	'holes'
4) ū-zát	'trees'
5) ū-káp	'money'
6) ā-z-ɛ́t	'much'
7) fir-ì y-fír-í	'very black'
8) sóv-sóy	'suck fast'
9) tárī-tár-í	'lie quickly'
10) pɛ́v-pɛ́-y	'tear fast'

These words will be derived following the order of the rules below:

1) Devoicing rule:

$$[+vd] \rightarrow [-vd] \;/\; \underset{C}{\_\_}\#$$

2) [d] and [r] alternation rule:

d --> r / CV --

3) Devocalization rule:

a) i -> y / v-
b) u -> w / v-

(In the following derivations, I have ignored the tonal rules: the tones that are in the underlying representation are not necessarily right as I have not looked at this aspect of tone in any great depth.)

Derivations (a):

Words	jɛ́k	ī-ɣáp	ī-bɛ́k	ū-zát
UR	/jɛ́g/	/ī-ɣáb/	/ī-bɛ́g/	/ū-zád/
Devoicing:	k	p	k	t
d/r alternation	---	---	---	---
Devocalization	---	---	---	---
PR	[jɛ́k]	[ī-ɣáp]	[ī-bɛ́k]	[ū-zát]

Derivations (b):

Words	ū-káp	ā-zɛ́t	fìr-ìv-fír-í	
UR	/ū-káb/	/ā-zɛ́d/	/fìd-ìī-fíd-í/	
Devoicing:	p	---	--------	
d/r alternation	---	---	r	r
Devocalization	---	---	v	
PR	[ū-káp]	[ā-zɛ́t]	[fìr-ìy-fír-í]	

Derivations (c):

Words	sóī-só-y	tárī-tár-í	pɨ́y-pɨ́r-ɨ́	
UR	/sóī-só-í/	/tádī-tád-í/	/pɨ́ì-pɨ́-ì/	
Devoicing:	------	---------	----------	
d/r alternation	------	r	r	------
Devocalization	y	v	--------	y	v
PR	[sóy-só-y]	[tárī-tár-í]	[pɨ́ɨ-pɨ́-ɨ]	

Tones are copied alongside the melodic material in nouns and adverbs. In verbs and adjectives, tones are not copied in a number of words and they are copied in others. This is illustrated in chapters 3 and 4.

Morphologically, the reduplicant appears to the right of the base forming suffixes. This happens in both partial and complete reduplication. These suffixes do not bring about any change in meaning in partial reduplication.

in complete reduplication while these suffixes bring about a change in meaning and word class in nouns. in adjectives, adverbs and verbs, there is neither a change in meaning nor in word class. Instead,the reduplicant adds more meaning to the word in process as shown in chapter 4. Hence, reduplication is also a semantic process.

Therefore, both partial and complete reduplication take place in the language. Partial reduplication exists in a limited number of words, and it affects only the nouns. Complete reduplication is very common in the language and it affects the four classes of words that form the open class of lexical items.

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