

UNIVERSITY OF CALIFORNIA

Los Angeles

A Phonology and Morphology

of Ejagham

---with notes on dialect variation.

A dissertation submitted in partial satisfaction of the  
requirements for the degree Doctor of Philosophy  
in Linguistics

by

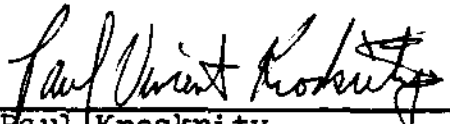
John Robert Watters

1981

© Copyright by  
John Robert Watters  
1981

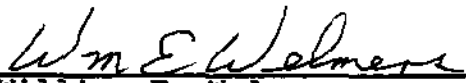
The dissertation of John Robert Watters is approved.

  
Christopher Ehret

  
Paul Kroskrity

  
Paul M. Schachter

  
Russell G. Schuh

  
William E. Welmers,  
Committee Chairperson

University of California, Los Angeles

1981

TO  
THE EJAGHAM PEOPLE  
with my greatest respect,  
friendship, and thanks;

and

TO  
KENNETH L. PIKE  
who introduced me  
to the wonder of human language.

## TABLE OF CONTENTS

### The preliminaries

List of Abbreviations and Symbols.....	viii
Acknowledgments.....	xi
Vita and Publications.....	xv
Abstract.....	xvi

### The text

1.0 Introduction.....	1
1.1 The Ejagham people.....	2
1.2 The Ejagham language.....	5
1.3 The orientation of this study.....	17
1.4 Previous literature touching on Ejagham.....	19
1.5 Arrangement and format of this study.....	22
1.6 Maps of Ejagham.....	23
Notes to chapter 1.....	29

### PART I: PHONOLOGY

2.0 Phonological Units.....	31
2.1 The segments.....	32
2.2 Phonotactics.....	42
2.3 The suprasegmental tone and its phonotactics	50
Notes to chapter 2.....	61
3.0 Morphophonology.....	74
3.1 Segmental.....	75
3.2 Suprasegmental (tone).....	100

3.3	The representation of tone and tonal processes in Ejagham.....	115
	Appendix.....	204
	Notes to chapter 3.....	218

PART II: MORPHOLOGY

4.0	The Noun.....	232
4.1	Expression of syntactic and semantic functions.....	233
4.2	Specific means for expression of syntactic functions.....	235
4.3	Syntactic functions in relation to nonfinite verb forms.....	245
4.4	The expression of nonlocative semantic functions.....	251
4.5	The expression of locative semantic functions.....	266
4.6	The expression of temporal semantic functions.....	278
4.7	Number-marking system.....	290
4.8	Noun classes and genders.....	291
4.9	Referential and nonreferential indefiniteness.....	313
4.10	Definiteness, referentiality, genericness and importance.....	313
	Notes to chapter 4.....	314

5.0	The Pronoun.....	316
5.1	Personal pronouns.....	317
5.2	Reflexive pronouns.....	325
5.3	Reciprocal pronouns.....	325
5.4	Possessive pronouns.....	326
5.5	Demonstrative pronouns.....	328
5.6	Interrogative pronouns and other question words.....	331
5.7	Indirect questions.....	341
5.8	Relative pronouns and other relative words..	344
5.9	The associative marker.....	352
5.10	Locative pronouns.....	354
	Notes to chapter 5.....	355
6.0	The Verb.....	359
6.1	Voice.....	360
6.2	Tense.....	364
6.3	Aspect.....	366
6.4	Mood.....	390
6.5	Repetitive.....	404
6.6	The negative.....	422
6.7	Intersection of aspects, moods, repetitive and negative.....	432
6.8	Positions of the verbal construction.....	433
6.9	Nonfinite verb forms.....	434
6.10	Person, number.....	434
6.11	Directional verb forms.....	440
	Notes to chapter 6.....	446

7.0	Other Word Classes.....	455
7.1	The adjective.....	456
7.2	Prepositions.....	463
7.3	Numerals and quantifiers.....	464
7.4	The adverb.....	480
7.5	Syntactic particles.....	484
	Notes to chapter 7.....	488
8.0	Derivational Morphology.....	489
8.1	The derivation of nouns.....	490
8.2	The derivation of verbs.....	500
8.3	The derivation of adjectives.....	504
8.4	The derivation of adverbs.....	507
8.5	The derivation of prepositions.....	508
8.6	Compound nouns.....	509
	Notes to chapter 8.....	513
9.0	Historical Topics in Ejagham Morphology.....	514
9.1	The historical derivation of the repetitive and some negative verbal forms.....	515
9.2	Morphological evidence of Ejagham's genetic relationship to Proto-Bantu.....	522
	References.....	543



## LIST OF ABBREVIATIONS AND SYMBOLS

ABL	abilitative
AM	associative marker
C	consonant
CESS	cessative
C.F.COND	counter-factual conditional
C.Foc	constituent-focus
COMP	complementizer
COND	conditional
CONT	continuous
DEP:TEMP	dependent temporal
DIR	directional
DS	downstep
EE	Eastern Ejagham dialect
FOC	focus
FUT	future
H	high tone
'H	downstepped high tone
HAB	habitual
HORT	hortative
IMPFV	imperfective
IMPER	imperative
INF	infinitive
L	low tone
LOC	locative
N	syllabic nasal
NEG	negative
NEG.EXIST	negative of existence
NEG.IDENT	negative of identification
NOM(SFX)	nominalizing suffix
OBJ	object
p	numerical value of a given pitch
Pf	prefix
PFT	perfect

PFV	perfective
PROSPEC	prospective
prox	proximate
QM	question marker
Ⓟ	replacive tone
REL	relative pronoun or word
REP	repetitive
RHET:PART	rhetorical particle
Rt	root
SE	Southern Ejagham dialect
SP	subject prefix
SP:REF	specific-referent
SSC	sequence-structure-condition
T	tone variable
vd	voiced
vl	voiceless
WE	Western Ejagham dialect
WFC	well-formedness condition
XDS	'dynamic' downstep feature
XH	high tone with 'dynamic' downstep feature
1	noun class 1 (concord) element
2	noun class 2 (concord) element
3	noun class 3 (concord) element
5	noun class 5 (concord) element
6	noun class 6 (concord) element
8	noun class 8 (concord) element
9	noun class 9 (concord) element
14	noun class 14 (concord) element
19	noun class 19 (concord) element
1ps	first person singular
2ps	second person singular
3ps	third person singular
1pp	first person plural
2pp	second person plural
3pp	third person plural

3p            third person  
 .             syllable boundary  
 \*             unacceptable; reconstructed; unattested  
 #             morpheme boundary  
 ##            word boundary  
 ( )           optional; underlying but deleted on surface  
 ||            pause boundary  
 \$             syllable  
 ?             interrogative  
 '             high tone  
 `             low tone  
 '             downstep  
 ^             falling-to-low tone  
 "             falling-to-'mid' tone  
 ˇ             rising tone  
 -             phonetic equivalent to downstepped high

## ACKNOWLEDGMENTS

A study such as this is not possible without the generous help of various people and institutions. I would like to recognize and thank as many of these as possible, but in doing so I run the risk of overlooking someone who should be mentioned. I beg that person's understanding. It is not because their help was unimportant.

First, I would like to thank the General Delegation for Scientific and Technical Research (DGRST), the Institute of Human Sciences (ISH) and the Regional Center for Anthropological Studies (CREA) of Cameroon under whose good offices most of the research for this study was carried out. I also want to thank the University of Yaounde and the Department of African Languages and Linguistics under whom this research was initiated in 1974. My colleagues of the Summer Institute of Linguistics in Cameroon helped in innumerable ways, while the last period of research for this study was made possible financially by a Fulbright-Hays Fellowship. In addition, the Cameroon administration, especially the various officials in Mamfe, South West Province, did much to make my stay and that of my family's in the Ejagham area a pleasant and enjoyable one.

Secondly, I would like to thank the Ejagham people, especially the residents of Ndebaya and Ogomoko, for accepting me and my family so graciously and adopting us as one of them. They have shared their lives with us, for which we will always

be enriched, and they have shown us a level of hoapitality which will be a constant challenge to us to eumlate. I thank specifically Jacob Tiku Eno of Ndebaya who tolerated us with our non-Ejagham idiosyncracies under his own roof for numerous months over a period of three years. And I thank Emmanuel Ojong Orok for helping us find housing and James N. Ntui for providing us housing for our ten month stay in Ogomoko. I thank the Honorable W.N.O. Effiom of the National Assembly and his wife for the times they have received us into their home, and for the times he visited us in the village to see that all was well. I want to give special thanks to Mma Mary Awu of Ndebaya and Papa Stephen Ntui of Ogomoko. Mma Awu adopted us as her children and truly played the role of mother and grandmother during our stay in Ndebaya. We will never forget her magnificent talent as a story teller. Papa Ntui adopted us as his children and truly played the role of father and grandfather during our stay in Ogomoko. He shared with us numerous events of the past years, some dating to pre-German days. We will never forget the hours we apent with both of them, discussing the changes that have affected the Ejagham over the past half-century and more.

Thirdly, I would like to thank Daniel and Anni Roth, and Dorothee Flik of the Mbakang Health Center for their untiring hospitality and the countless ways in which they made life easier for me and my family. I also want to thank the various priests of St. Joseph's Misaion in Mamfe, especially Father

Jan Molenaar and Father Louis Nomi, for their many kindnesses and willingness to help when we were in need.

Finally, I would like to thank the various language helpers, some of whom have spent many hours of their lives teaching me the Ejagham language. The most notable have been Patrick Etta Etta of Eyumojok and Peter Tambe-Nchinge of Mfuni. Others have included Martin Obiata (Ndebaya), Simon Nkpot Mbi (Ndebaya), Jacob Tiku Eno (Ndebaya), Mma Mary Awu (Ndebaya), and Manyo Atabe (Ndebaya). Then there were the various people who helped in the dialect survey: Joseph Oben (Assibong), Rebecca Bate Oben (Mbinda-Tabo), Edmund Agbo Njang (Ossing), Peter Tambe-Nchinge (Mfuni), Peter Oben Tanyi (Ogomoko), Peter Tiku (Ebinsi), Small Eta Ojong (Nkimichi), Monny Ashu Ndip and Njang Obi (Ayukaba), Grace Monyam Ojong (Agbokem, Cameroon), Matias Ayamba (Tabo), Joseph Nkem Eta and Ayuk Nkem Ojong (Mbakem), Kathaleen Bibi Ekong (Babong), James Effiom Eta (Abakpa), Patrick Etta Etta (Eyumojok), Chief Etem Eteket and Ojong Atom (Otu), Moses Abang Eta and Tom Takon (Bindeghe), John Assam Atin (Ajasso), John Oriri Nyambi (Abijang), Ita Sam (Mbarakom), Ansa Ansa Enow and Effiong Etem Basi (Big Qua Town). I also want to thank Chief Shadrach Bate Oben (Mbinda-Tabo) and Chief Michael Ndep Ojage (Agbokem, Cameroon) for their help in locating some of these individuals.

Of course, in the writing of such a study there are those who must wade through the pages of the first draft. I would like to thank especially Paul Schachter, Russ Schuh and Bill

Welmers on this account for their numerous helpful comments, questions and suggestions. Of course, any errors or misrepresentations which remain in the study are mine.

Then there is my family. I want to thank my parents and my parents-in-law for their encouragment and interest during the years that this study has been pursued. But above all, I want to thank my wife, Kathie, and my children, Rachel, Sarah and Matthew (who in Ejagham are Oga, Awu and Ntui), for allowing their husband and father to bury himself in paper when they would have rather had him reading a book, singing songs or taking a walk with them.

## VITA

- February 23, 1947--Born, Mexico City, Mexico
- 1969--A.B., History, University of California, Berkely
- January 1970-June 1971--Fuller Theological Seminary
- 1973-1977--Field Researcher, Summer Institute of Linguistics,  
Cameroon
- 1977-1979--M.A., Linguistics, University of California,  
Los Angeles
- 1979-1980--C.Phil., Linguistics, University of California,  
Los Angeles
- 1980--Fulbright-Hays Fellow, Cameroon

## PUBLICATIONS

- Watters, John R. 1979. Focus in Aghem: a study of its formal correlates and typology. In Larry M. Hyman (ed.). A Grammar of Aghem, pp. 137-197. Southern California Occasional Papers in Linguistics No. 7. Los Angeles: University of Southern California.
- Watters, John R. 1980. Review of S.C. Dik, Functional Grammar. *Lingua* 50.155-171.
- Watters, John R. 1980. The Ejagam noun class system: Ekoid Bantu revisited. In Larry M. Hyman (ed.). Noun Classes in the Grassfields Bantu Borderland, pp. 99-137. Southern California Occasional Papers in Linguistics No. 8. Los Angeles: University of Southern California.



ABSTRACT OF THE DISSERTATION

A Phonology and Morphology

of Ejagham

---with notes on dialect variation

by

John Robert Watters

Doctor of Philosophy in Linguistics

University of California, Los Angeles, 1981

Professor William E. Welmers, Chairperson

Few grammars have been done on the numerous Benue-Congo languages of Cameroon and Nigeria. This study of the phonology and morphology of Ejagham is provided to help fill this void in our knowledge. It is offered as the first two parts of what should eventually be a full reference grammar of Ejagham, an Ekoid Bantu language which includes Crabb's (1965) Ekoid F, G and H (i.e. Etung) as sub-dialects.

Chapter 1 introduces the Ejagham people and language in terms of their location, population, linguistic classification and internal dialect distinctions. It also introduces the previous literature touching on Ejagham, and provides maps which specify the location of the 145 or so Ejagham villages and the dialects and sub-dialects to which they belong.

Part I is on the phonology of Ejagham and includes chapters 2 and 3. Chapter 2 covers the phonological units, both segmental and tonal, and their phonotactics. Chapter 3 covers the morphophonology, both segmental and tonal, plus a lengthy discussion on the representation of tone in Ejagham. This discussion includes the representation of tonal contours, the status of downstep as a tonal feature in a constrained phonological theory, and the actual formalization of the tonal processes under two different analyses, one using the notion of 'static' downstep and the other using the notion of 'dynamic' downstep.

Part II is on the morphology of Ejagham and includes chapters 4 through 9. Chapter 4 is on the noun. It covers the expression of various syntactic and semantic functions, whether they are expressed morphologically or syntactically, as well as the form of the Ejagham noun class and gender system. Chapter 5 is on the pronoun. It covers such forms as personal, reflexive, reciprocal, possessive, demonstrative, interrogative, relative and locative pronouns. In certain cases these pronominal notions are expressed by noun phrases or clausal expressions rather than simple pronominal forms. Chapter 6 is on the verb. The crucial categories in the verbal system are 'aspect' (i.e. perfect, perfective, imperfective), 'mood', 'repetitive' and 'negative'. 'Tense' is not formally marked in the system. Chapter 7 is on other word classes such as the adjectives, prepositions, numerals,

quantifiers, the adverb and syntactic particles. Chapter 8 is on derivational morphology, including the derivation of nouns, verbs, adjectives, adverbs and prepositions. Finally, chapter 9 is on historical topics in Ejagham morphology. One topic is the historical derivation of the repetitive prefix and certain negative prefixes from verb roots. The other topic is the morphological evidence for a close genetic relationship between Ejagham and the Bantu languages used in Meeussen's (1967) reconstructions of Proto-Bantu.

CHAPTER 1

INTRODUCTION

## 1.0 Introduction

### 1.1 The Ejagham people

#### 1.1.1 Location

The Ejagham people live in the Cross River Basin in a continuous territory located within the triangle formed by the towns of Calabar and Ikom in Nigeria and Mamfe in Cameroon. The international boundary between Cameroon and Nigeria divides their territory into two parts. In Cameroon they live in the western portion of the Mamfe Sub-Division of Manyu Division in the South West Province. In Nigeria they live in the southeastern portion of Ikom Division, the eastern portion of Akamkpa Division, and northern portion of Calabar Division, all within the Cross River State.

Of the four administrative divisions in which the Ejagham live, only Akamkpa has its administrative headquarters within the Ejagham area. The other three administrative headquarters lie just outside the Ejagham area, although the Kwa dialect extends into the "greater" Calabar Town area which is the headquarters of Calabar Division and the capital of the Cross River State. Most of these Kwa (i.e. Southern Ejagham) speakers who live within the Calabar Town area live in Big Qua Town and Akin. In addition, a new administrative sub-station has been set up in Eyumojok within the Mamfe Sub-Division in Cameroon.

The Ejagham area lies within the coastal rainforest. On the Cameroon side the rainfall averages from 120 to 150

inches (300 to 375 cm.) per year, with most of the rain falling between May and November. The elevation of most villages is between 300 and 600 feet (100 and 200 meters), although a few are as high as 1000 feet (300 meters) in the Oban Hills area in Nigeria and the neighboring hills in Cameroon<sup>1</sup>.

### 1.1.2 Population and settlement

There are approximately 75,000 to 80,000 speakers of the Ejagham language. These figures are intended to be conservative. The only figures available were those for Manyu Division of Cameroon (Courade 1973) and Ikom Division of Nigeria (Crabb 1965,6-7). No census figures were available for Akamkpa or Calabar Divisions. The figures given below are estimates for 1981. The figures for Manyu and Ikom Divisions are based on the available census plus a projected increase of about 2% in the population per year. The other figures are estimates based on personal visits or estimates arrived at with Ejagham people by comparing the relative sizes of villages unknown to the author but known to these Ejagham people with villages known to both the author and these Ejagham.

#### Cameroon

Manyu Division	35,000
----------------	--------

#### Nigeria

Ikom Division	20,000
---------------	--------

Akamkpa Division	15,000
------------------	--------

Calabar Division	5,000-10,000
------------------	--------------

This population is distributed throughout approximately 2,500 square miles (7,000 square kilometers), making the Ejagham area a relatively sparsely populated area of about thirty people per square mile (or ten per square kilometer).

The Ejagham live in approximately 145 villages. Most of these villages are small, ranging in size from less than 50 to a few hundred people. However, there are a few larger villages. The two largest of these are Bendeghe Ekim (previously Bendeghe Ayuk) in Ikom Division, and Kembong in Manyu Division. Both of these villages have around 5,000 inhabitants. It should also be noted that about 40,000 of the Ejagham people are concentrated in two relatively confined areas: southeastern Ikom Division in Nigeria, and around Kembong in the Manyu Division in Cameroon. This means that much of the Ejagham area is even more sparsely populated than the thirty people per square mile mentioned above. (See 'Map 1' in 1.6.)

The primary occupation of the Ejagham is farming. The major cash crops are cocoa and coffee. The major food crops are yame, cocoyame, plantain and cassava. Traditionally the Ejagham did a considerable amount of hunting<sup>2</sup>, but today the animal population in the forest appears to sustain only a few men as hunters, and the men no longer go out on group hunts as practiced in the past.

### 1.1.3 Neighbors and contacts

The Ejagham people have various neighbors. To the east

are the Anyang people (popularly known as the Bayang(i)) who speak Kenyang. To the northeast are the Anyang who speak Denya and related dialects. To the north are the Boki. To the northwest and west are the Nde, Ndum, Ikom, Mbembe, Okuni and Yakur people. To the southwest are the Ibibio and Efik people. And to the south are the Arop and Bakundu-Balundu people. Inter-marriage between the Ejagham who live on the periphery of the Ejagham area and those neighbors which are in close proximity to them is common.

Of these various neighbors, the Efik have had the greatest impact on the Ejagham. In the past the Efiks controlled much of the trade along the Cross River which was the main link between the coast and the interior. They also controlled Calabar which was the region's center for the exchange of African and European goods. A major trading path from Calabar passed through the southern Ejagham area to the east. This path was used to trade slaves, livestock, ivory, oil and oil-palm kernels in exchange for European salt, cloth and guns (Ruel 1969.12).

## 1.2 The Ejagham language

The Ejagham language has been referred to as the "Ekoi dialect cluster" (Westermann and Bryan 1952; Williamson 1971) and "Keaka" (Richardson 1957) in past classifications. In addition, other terms have been used to refer to the dialects or sub-dialects of Ejagham: Ekwe, Ejagham, Keaka, Obang,



Etung, Edjagam, Kwa and Eyafin.

The two terms "Ekoi" and "Ekwe" are variants of the same term. It is a term used by the Efik to refer to the Ejagham. Its origin is not entirely certain, but it may well have derived from the Ejagham practice of using a red body paint in the Mmon-i-nkim 'child of circumcision' dance. The term for this body paint is è-kúí.

The term "Keaka" originates from the Kenyang speaking people to the east of the Ejagham. It is derived, according to Ruel (1969.4), from the Kenyang prefix kè- and the Eastern Ejagham lexical root of self-reference: -jáyá. The Kenyang changed the root initial j to y and so derived the term kè-yáyá, i.e. "Keaka".

The term "Obang" is a term of self-reference used by people in the southeastern dialect area. The term "Etung" is a term of self-reference used by people in the northwestern dialect area, especially in Ikom Division. The term "Kwa" seems to derive from the town Big Qua near Calabar and refers to the Southern Ejagham dialect. The term "Eyafin" is the term used by the Obang speakers to refer to the northeastern dialect area or Keaka.

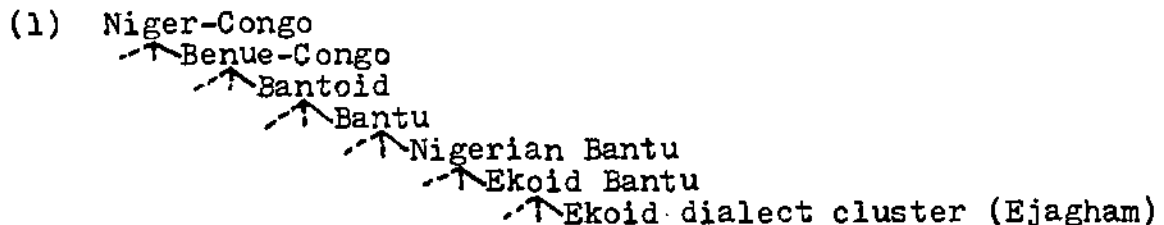
However, the most widespread term of self-reference is "Ejagham" (with its variant spellings) and its Eastern Ejagham variant "Ejagha". In Western Ejagham the term "Ejagham" [éjáyám] refers to the language primarily, but it has various derived forms which refer to the people (àné

éjágám), the culture (èrû éjágám) and the area (èbăd éjágám). In the Eastern Ejagham dialect the term "Ejagha" also refers primarily to the language, but it also has derived forms similar to those found in the Western dialect. However, it also permits the root -jáyá to occur in more than one noun class, unlike Western Ejagham. Thus, ñjáyá refers to a person who speaks "Ejagha" and ájáyá to people who speak "Ejagha"<sup>3</sup>. Because this term is the most widespread term of self-reference found in the area the language in this study will be referred to as "Ejagham".

However, it should be noted that people outside this specific language area, specifically some in related Ekoid languages, also refer to themselves as "Ejagham". But this self-reference is done more in terms of culture than in terms of language. Thus, in the larger community in which the speakers of Ejagham are found the term "Ejagham" refers to a common culture rather than a common language.

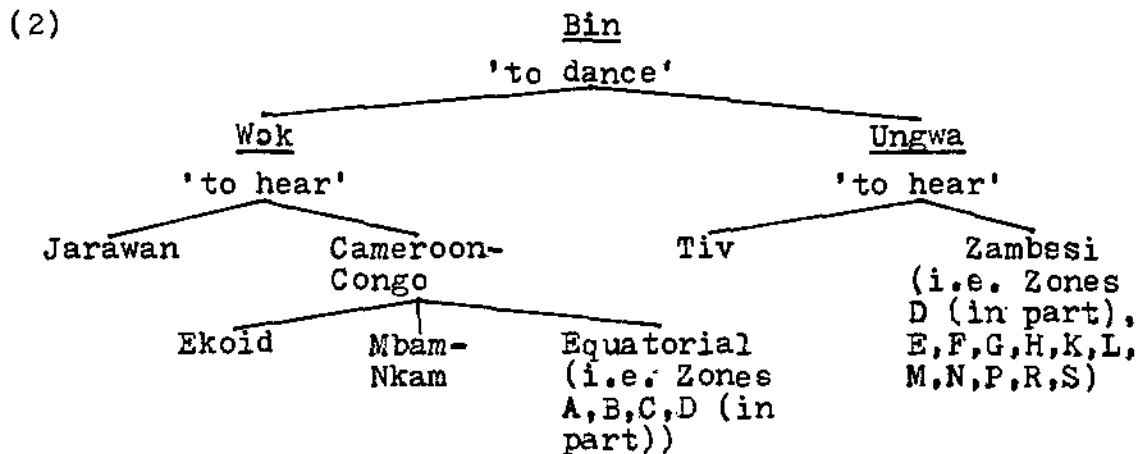
### 1.2.1 Language family

The Ejagham language has been classified in various ways. Two of the more recent classifications are those by Williamson (1971) and by Bennett and Sterk (1977). The following tree shows Williamson's classification.



Ejagham is classified as a Bantu language within Benue-Congo but in terms of sub-groupings it is distinct from Guthrie's Bantu.

Bennett and Sterk suggest a different classification. They group Guthrie's Bantu, Ekoid Bantu, the Mbam-Nkam languages, Tiv and Jarawan together as having a common root for 'to dance', namely bin, as opposed to other groups in what they refer to as South Central Niger-Congo. However, the sub-groupings within this group involve a splitting of Guthrie's Bantu and a sub-grouping of Ekoid Bantu (Ejagham being one Ekoid Bantu language) with the Mbam-Nkam languages and Zones A, B, C and part of D of Guthrie's Bantu. This classification is shown with the following tree (cf. Bennett and Sterk 1977.273).



### 1.2.2 Dialects and migration

Ejagham can be divided into three major dialects:<sup>4</sup> Western Ejagham (WE), Eastern Ejagham (EE), and Southern Ejagham (SE). WE or its sub-dialects have been referred to as "Ekwe" and "Ejagham" (Westermann and Bryan 1952.114), "Nigerian Ekoi" and

"Cameroon Ekoi" (Richardson 1957.52-55), and "Etung" (Crabb 1965; Williamson 1971.276-277). EE or its sub-dialects have been referred to as "Keaka" (Westermann and Bryan 1952.114), "Ejagham" (Richardson 1957.52-55), "Edjagam" (Williamson 1971.276-277) and "Obang" (Westermann and Bryan 1952.114; Richardson 1957.52-55; Williamson 1971.276-277). SE has been referred to as "Kwa" (Williamson 1971.276-277). (See section 1.2 above for further discussion of these terms.)

These three dialects may be distinguished on the basis of phonological, morphological and lexical differences. The most important are the phonological and morphological ones; and those are the ones presented here. Definitely the primary differences are phonological. First, each dialect has a different vowel system as presented in (3).

(3) Vowel Systems of Ejagham Dialects

<u>Western (WE)</u>			<u>Eastern (EE)</u>			<u>Southern (SE)</u>	
i	ɯ	u	i	ɿ	u	i	u
					o	e	o
ɛ	ə	ɔ	ɛ		ɔ	ɛ	ɔ
	a			a			a

Note that the front vowels of SE require further study and so are given here as tentative phonemes.

Each of the dialects has seven vowels, but in each case the system is different. Each dialect has three rounded vowels, three unrounded vowels and the low vowel a. The WE ɯ is a rounded vowel, while the EE ɿ is an unrounded one. The vowel correspondences between the dialects are generally

clear, but they are complex, especially in the case of the non-low vowels. For this dialect comparison, the low vowels are e, a and ə. However, more work needs to be done on the correspondences between SE and the other two dialects.

Secondly, there are certain consonant correspondences which distinguish the three dialects from each other.

Consider the following correspondences:

(4) <u>Western (WE)</u>	<u>Eastern (EE)</u>	<u>Southern (SE)</u>
j	bl	by
r	l	d
č	č	s
-CVN	-CV	-CVN
-CVNV	-CV:	-CVNV

The WE alveopalatal j corresponds in a set of lexical items to a lateralized bilabial bl in EE and a palatalized bilabial by in SE. In another set of lexical items, WE r corresponds to EE l and SE d. In another set of lexical items, WE and EE č corresponds to SE s. Finally, in various -CVN and -CVNV roots, where 'N' is n and m, EE has lost the nasal in the second consonant position. In the process, the second vowel in -CVNV roots has assimilated to the first vowel of the root, resulting in a long vowel.

Besides these phonological differences, there are also morphological ones. For example, the concord morpheme in the demonstratives has a u vowel in EE in noun classes 3, 8, 14 and 19. In WE these same noun classes have an i vowel. But in SE the u vowel occurs in noun classes 3 and 14, and the i vowel in noun class 19. Noun class 8 has been

lost in SE. (See 'Map 2' in 1.6.)

For more details on dialect differences, see the footnotes in the chapters which follow. Phonological differences are noted in footnotes to chapters 2 and 3, and morphological differences are noted in footnotes to chapters 4 through 8.

The estimated number of speakers for each of these dialects is as follows: WE 40,000 to 50,000; EE 25,000 to 30,000; and SE 5,000 to 10,000. These estimates include an overlap between WE and EE in that certain villages are included within EE in terms of administration and the census, but linguistically they belong to WE. Thus, if one takes a higher figure for WE, then a lower figure should be taken for EE, or vice versa.

At least WE and EE can be further divided into sub-dialects. Not enough is known about SE to say one way or the other. WE could be divided in various ways, but for this study the following distinctions are made. There are five sub-dialects in WE. First, there is a northern sub-dialect. It has a seven vowel system like that shown for WE in (3). In a set of lexical items which involve Proto-Ekoid \*ku this sub-dialect has ka<sup>5</sup>. Finally, for the negative imperfective this sub-dialect uses either the verbal prefix bó- or mó-, depending on the area of the sub-dialect involved. There are both phonological and morphological differences which would permit further sub-divisions within this sub-dialect, but for now the distinction of a northern sub-dialect will be sufficient.

Note that this sub-dialect includes the villages of Crabb's (1965) "Northern Etung" and "Northern Etung-Bendeghe" plus seven or eight villages in Cameroon.

Secondly, there is an eastern sub-dialect. Instead of the typical WE seven vowel system it only has six. The high, mid, rounded vowel ɤ has merged with the high, back, rounded vowel u, similar to what has happened in EE. In the set of lexical items with Proto-Ekoid \*ku, this sub-dialect has kwe. This feature is again like EE. Finally, the negative imperfective is formed by using the negative root -cán 'NEG. of EXISTENCE'. This is also found in EE. Thus, the eastern sub-dialect is different from the rest of WE in that it shares various features in common with EE which are not generally found elsewhere in WE.

Thirdly, there is a southern sub-dialect. Like the rest of WE, this sub-dialect has a seven vowel system, but it is slightly different than that for WE in (3):

(5) Southern WE

i		u
		o
e	ə	ɔ
	a	

Instead of having a mid rounded vowel, this sub-dialect has three back rounded vowels like EE and SE. However, the u and ɔ vowels do not correspond in a simple way to u and o in EE or SE, nor do they correspond in a simple way to ɤ and u in WE. Instead, the correspondences are complex. In the

set of lexical items with Proto-Ekoid \*ku, this sub-dialect also has kwe like the eastern sub-dialect and EE. Finally, the negative imperfective has two variants. It may either use the negative root -cán 'NEG. of EXISTENCE' or a verbal suffix -ém. In the first case it is like the eastern sub-dialect and EE, in the latter it is more like SE.

Fourthly, there is a western sub-dialect. It has the same vowel system as the northern sub-dialect except that the phonetic value of the mid, rounded vowel is lower and further back than that in the northern sub-dialect. In the set of lexical items with Proto-Ekoid \*ku, it is like the northern sub-dialect with kə. Finally, in this sub-dialect the negative imperfective is indicated with a verbal prefix rógo- which is unique to this sub-dialect<sup>6</sup>.

Finally, there is a southwestern sub-dialect. Like most of WE, it has a seven vowel system like that in (3) for WE. However, in the lexical items which involve Proto-Ekoid \*ku, this sub-dialect also has ku, making it distinct from the other sub-dialects. Finally, the negative imperfective is indicated by the verbal prefix mó-. (See 'Map 3' in 1.6.)

Turning from WE to EE, this second major Ejagham dialect can be divided into two basic sub-dialects. The larger of these is the northern sub-dialect which has been known as "Keaka". It has a population of 22,000 to 25,000. The smaller one is the southern sub-dialect which has been known as "Obang". It has a population of 3,000 to 4,000. The



first difference between these two sub-dialects is phonological. The southern sub-dialect has nasalized vowels, while the northern one (except for a few villages on the western periphery) does not. These nasalized vowels derive from roots which in WE and SE have n and m in the second consonant position. They correspond as follows:

(6) <u>WE and SE</u>	<u>northern EE</u>	<u>southern EE</u>
-CVN	-CV	-C $\tilde{V}$
-CVNV	-CV:	-C $\tilde{V}$ :

The second difference between these two sub-dialects of EE is found in the forms of the constituent-focus verb forms. Details of these can be found in the appropriate footnotes of section 6.3.2.2 and 6.3.3.3. The final major difference is that the southern sub-dialect has only eight noun classes while the northern sub-dialect has nine noun classes which is typical of Ejagham as a whole. Noun class 19 has merged with noun class 8 in the southern sub-dialect. (See 'Map 4' in 1.6.)

The expansion of the Ejagham people and the establishment of their villages and recognized dialect areas is a complex topic and far beyond the scope of this study. However, a few comments can be made. First, from the distribution of the three Ekoid languages of which Ejagham is one, the simplest hypothesis would appear to be that Proto-Ekoid was spoken in the vicinity of present day Ikom in Nigeria. From there the Ejagham moved east and south. Secondly, oral traditions in various villages point to a general, piecemeal movement of the Ejagham from west to east, i.e. from the

Ikom area to the east. One exception to this theme in oral traditions is the tradition of the SE who claim to have come from Mbakang 'road of salt' in the EE area. This would mean that there was a first migration from the Ikom area east to the Mbakang area, and then a second migration south and west to the Calabar area. There is historical evidence that this second migration would have had to occur before 1668 (see Ardener 1968.126 'Postscripta').

### 1.2.3 The Eyumojok-Ndebaya sub-dialect

In writing a grammar of a language, one has to choose between covering those points which are generally common across dialects, or present a dialect or sub-dialect instead as representative of the language. The latter choice has been made here.

The basis of this grammar is the sub-dialect spoken in the villages of Eyumojok and Ndebaya in Cameroon. These villages in the eastern part of the northern sub-dialect of WE. Anyone who is acquainted with Ejagham or who speaks Ejagham will recognize the forms used in this study as the speech forms of these two villages, or at least of the "Etung" area. As seen above, Ejagham varies between dialects and within dialects in the form of sub-dialects (see 1.2.2). But even within sub-dialects, the language varies from area to area, from village to village, and even from individual to individual. However, it is hoped that by focusing on one sub-dialect in depth, differences in other dialects and sub-

dialects will be clearer. This study does not claim that this is the only way Ejagham is spoken or that this is the way it should be spoken. It is neither exclusive nor prescriptive. It is intended to be comparative and descriptive.

In terms of the two villages, most of the data was collected at Ndebaya ("Source-of-the-river"). Ndebaya was chosen instead of Eyumojok ("Bathing-of-elephants") because it is a homogeneous community of about 200 Ejagham people whereas Eyumojok has a large number of non-Ejagham residents.

Much of the data for this study was collected during periods of residence in the village of Ndebaya as follows: May 1974 to January 1975, May 1975 to November 1975, January and February 1976, and December 1976 to February 1977. In addition, some preliminary dialect surveys were done in March 1975. Finally, from July 1980 to February 1981 the EE (and other dialects and sub-dialects) were studied while the author was resident in Ogomoko ("The-market, you-have-taken") in the northern sub-dialect area of EE otherwise known as "Keaka". (See 'Map 5' in 1.6.)

#### 1.2.4 Bilingualism

The nature of bilingualism has been in the process of changing. Many of the older generation who lived in the perimeter of the Ejagham area learned a neighboring language such as Kenyang, Boki or Efik. Furthermore, many of the older generation away from the perimeter of the Ejagham area

learned Efik because of its use as a trade language. But the younger generations have turned largely to English or Pidgin English as a second language, even though some among them have also learned a neighboring language. English has gained importance for various reasons. First, it is the administrative language of the government in the Ejagham area, and has been for decades, whether in Cameroon or Nigeria. Secondly, it is used as the medium of instruction in all schools in the Ejagham area, with the exception of the SE area where Efik is also taught in schools. Thirdly, the Efik speaking area around Calabar is looked on as an economic center today only by the Ejagham living in Calabar and Akamkpa Divisions in Nigeria. The Ejagham in Ikom Division in Nigeria look to Ikom and further west to the Igbo area as economic centers. And the Ejagham in Manyu Division in Cameroon look to Mamfe and beyond to Kumba as economic centers. This splitting of the Ejagham area into three economic regions has enhanced the demise of Efik as a trade language and the rise of English and Pidgin English in its place.

### 1.3 The orientation of this study

This study is essentially descriptive in orientation, but theoretical discussion is pursued where the data seems particularly relevant to a theoretical question or position. Of course, even a description of a language is not possible

without some theoretical orientation. The description of the phonology assumes that segmentation of the speech continuum is possible and that these segments can be characterized by a set of features which are specified as being true or not true of that segment. It is also assumed that these segments stand in opposition to one another, and that they are meaningfully understood only within the overall systematic sound structure of the language. The description of the morphology assumes that the segmentation of the speech continuum into grammatical units is also possible, and that a given grammatical unit within this segmentation may correlate with more than one semantic category or unit.

In addition, the theoretical orientation taken here is consonant with various current approaches to language (see, for example, Dik 1978): namely, a primarily functional approach in which linguistic forms and their variations are correlated as much as possible with their functions, whether these be syntactic, semantic or pragmatic. Functions are assumed to precede form in at least two ways. First, language is viewed primarily as a tool for social and communicative interaction rather than as a formal and uniquely mental property of the human being. This is not to say that certain innate, linguistic-specific capacities are not present in the human being. However, this is to say that the use of language in the external world is a crucial dimension to any understanding of language in terms of sounds, structure or

interpretation, and that broader and more abstract cognitive processes interact with and, at times, control linguistic behavior.

A second sense in which functions are said to precede form is that in the description and representation of an arbitrary language the linguistic forms and their variations in that language should be correlated as much as possible with the function or functions which motivate them rather than simply with the structure in which they occur. Thus, a prime interest is to find, whenever possible, the syntactic, semantic and pragmatic functions which operate in Ejagham as determinants of Ejagham linguistic form.

No set position is taken on whether or not the functions relate to the form in a generative or in an interpretive manner. But for working purposes, a generative approach is taken in the description of the phonology. In addition, a suprasegmental approach to representation is used in presenting Ejagham tone. The purpose of this emphasis on description and non-committal stance on certain questions is to allow the study to be useful beyond the aging and death of some present day theory or model.

#### 1.4 Previous literature touching on Ejagham

##### 1.4.1 Word lists

Word lists of various Ejagham dialects have been collected and published by Clarke (1848), Koelle (1854), Goldie (1862),

Mansfeld (1908), Talbot (1912), Thomas (1914), Johnston (1919), Jeffreys (1950), Crabb (1965) and Tom and Eileen Edmondson (1977). Many of these word lists are short, many do not include tone, and many have segmental inaccuracies. The most useful and accurate are those provided by Crabb and the Edmondsons. Crabb's work has the longer word list and is the most useful for comparative purposes since he includes other Ekoid languages along with the three sub-dialects of WE included in his study. At present there is no word list which covers all of the Ejagham dialects and sub-dialects. Crabb provides an annotated bibliography of all the word lists up to Jeffreys (1950).

#### 1.4.2 Classificatory literature

Various people have discussed the classification of Ejagham, another Ekoid language or dialect, or the Ekoid languages as a whole: Koelle (1854), Cust (1883), Thomas (1914), Johnston (1919), Talbot (1926), Thomas (1927), Westermann (1952), Richardson (1957), Guthrie (1962, 1967-71), Greenberg (1963), Crabb (1965), Williamson (1971) and Bennett and Sterk (1977). Crabb provides comments on each of these works up to and including Greenberg's seminal work, but he does not comment on any of Guthrie's work. Note that not in everyone of the above works is the word "Ejagham" or "Ekoid" mentioned. Sometimes the language is referred to by another name, and in some cases the language is classified implicitly by the very nature of the classification.

### 1.4.3 Descriptive studies

Talbot (1912) collected seven pages of morphological and syntactic information, but it is of limited use. Richardson (1957), in the survey of northern Bantu borderland languages, gives a very brief statement about the morpheme structure, noun classes, nominal sentences and pronouns. Again, the information is sketchy and of use only to show that the language is not a "standard", central Bantu language.

More serious and useful work has been done by Crabb and the Edmondsons. Crabb (1965) gives a phonemic and phonotactic statement for each of the Ekoid languages and dialects he studied in Nigeria. Also in phonology, Tom Edmondson and Bendor-Samuel (1966) give an analysis of tone distribution within a prosodic framework, while Tom and Eileen Edmondson produced a phonological overview of the Bendeghe sub-dialect of WE in 1966-67 which was later published in 1977.

Outside of phonology, Pike (1966) includes some studies by the Edmondsons on the noun prefixes and verb system. In some unpublished papers Tom Edmondson (1969) provides an introduction to the morphology and syntax of the language. These papers provided the basis for the author's initial study of the language. Edmondson's studies concern the Bendeghe sub-dialect of northern WE rather than the Eyumojok-Ndebaya sub-dialect.

### 1.4.4 Cultural

The two major cultural studies on the Ejagham people were



done at the turn of the century: Mansfeld (1908) on the Cameroon side and Talbot (1912) largely on the Nigerian side. More recently, the Edmondsons (1971) wrote an article on the direction of Ejagham migration on the basis of the linguistic evidence they had available.

### 1.5 Arrangement and format of this study

This study contains the first two parts of a reference grammar of Ejagham. Part I is on the phonology, with chapter 2 covering the phonological units and chapter 3 covering the morphophonology. Part II is on the morphology, with chapter 4 on the noun, chapter 5 on the pronoun, chapter 6 on the verb, chapter 7 on other word categories, chapter 8 on derivational morphology and chapter 9 on some historical topics in Ejagham morphology.

The Lingua Descriptive Series Questionnaire (Comrie and Smith 1977) was used extensively in organizing this study. Because of this, chapter 4 on the noun contains material which is not in the strict sense 'morphological'. Instead, this material details how various semantic functions are expressed even if it does not involve noun phrases but instead involves verbal expressions or types of clausal constructions. This material has been retained so that those working on typology can see exactly how these functions are expressed in Ejagham.

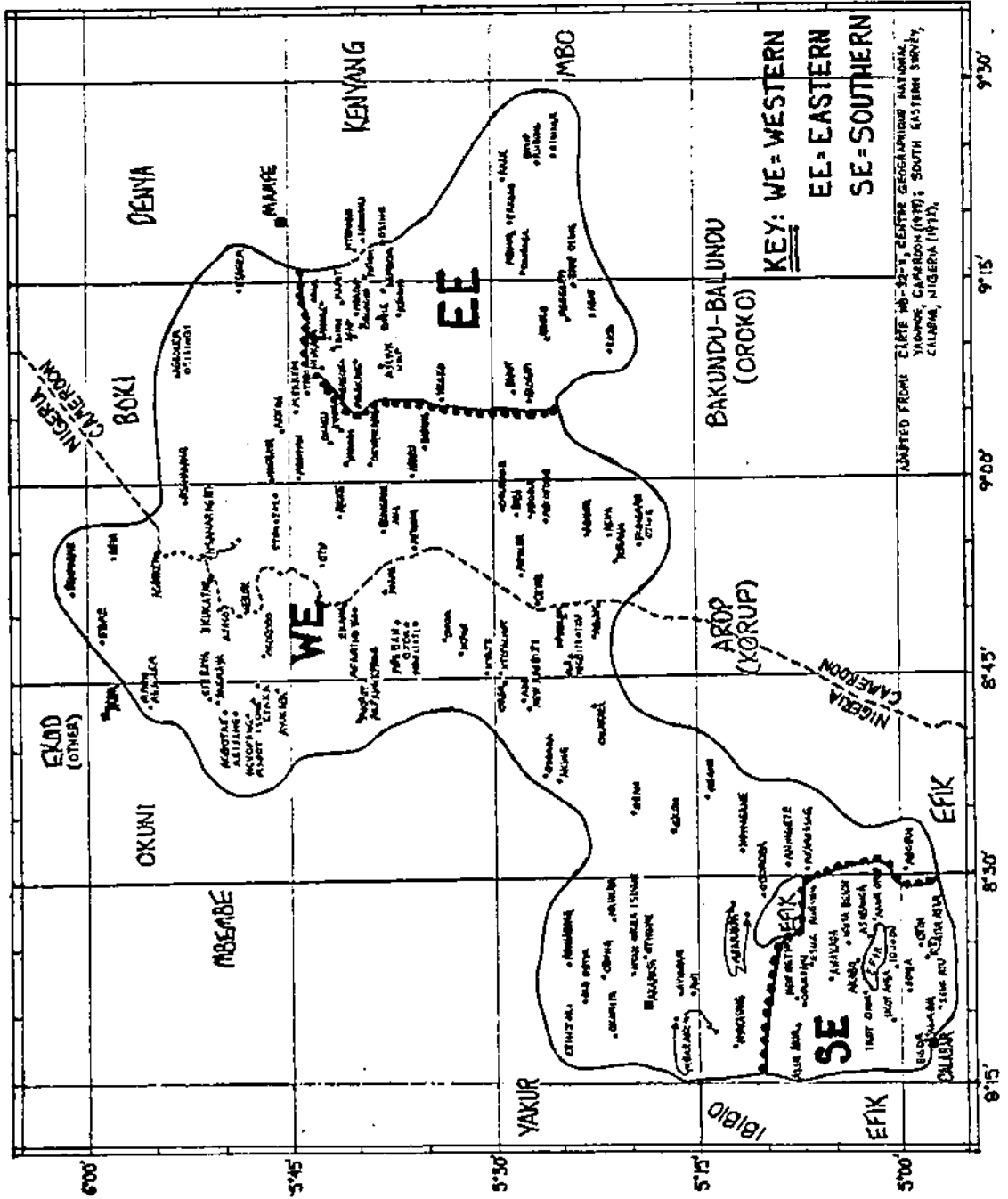
## 1.6 Maps of Ejagham<sup>7</sup>

The following maps have been included in this introduction. Map 1 locates the Ejagham area in relation to Calabar and Ikom in Nigeria, and Mamfe in Cameroon. It also identifies the location of all the Ejagham villages of which the author is aware. Map 2 identifies the three major dialects of Ejagham: Western Ejagham (WE), Eastern Ejagham (EE), and Southern Ejagham (SE). The boundary between WE and SE is drawn in only as a tentative boundary since not all of the villages along this boundary have been unequivocally identified as to their dialect membership. Map 3 identifies the sub-dialects of Western Ejagham, of which there are five major ones suggested in this study. The dotted lines indicate areas where the sub-dialect boundaries have not yet been clearly identified. Much work remains to be done at this level of dialect identification. Note that very little is certain as to the boundary between the southern and southwestern sub-dialects of WE. Map 4 identifies the sub-dialects of Eastern Ejagham. Again, the dotted line indicates an area where the sub-dialect boundary has not yet been clearly identified. Map 5 identifies the reference sub-dialect used in this study: namely, that of Eyumojok-Ndebaya. Note that this sub-dialect is identified on Map 3 as part of the northern sub-dialect of Western Ejagham.



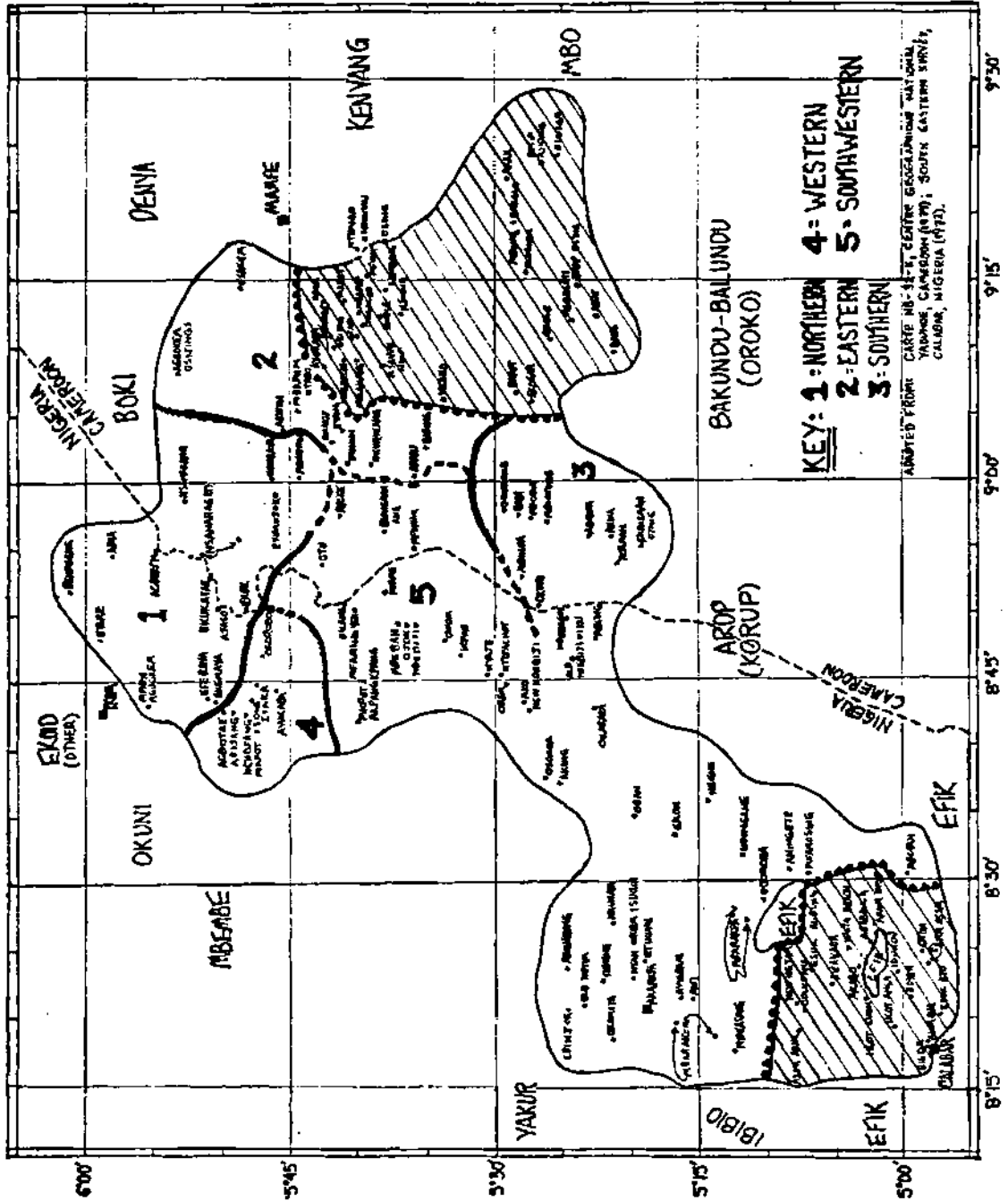
# MAP 2

## EJAGHAM DIALECTS



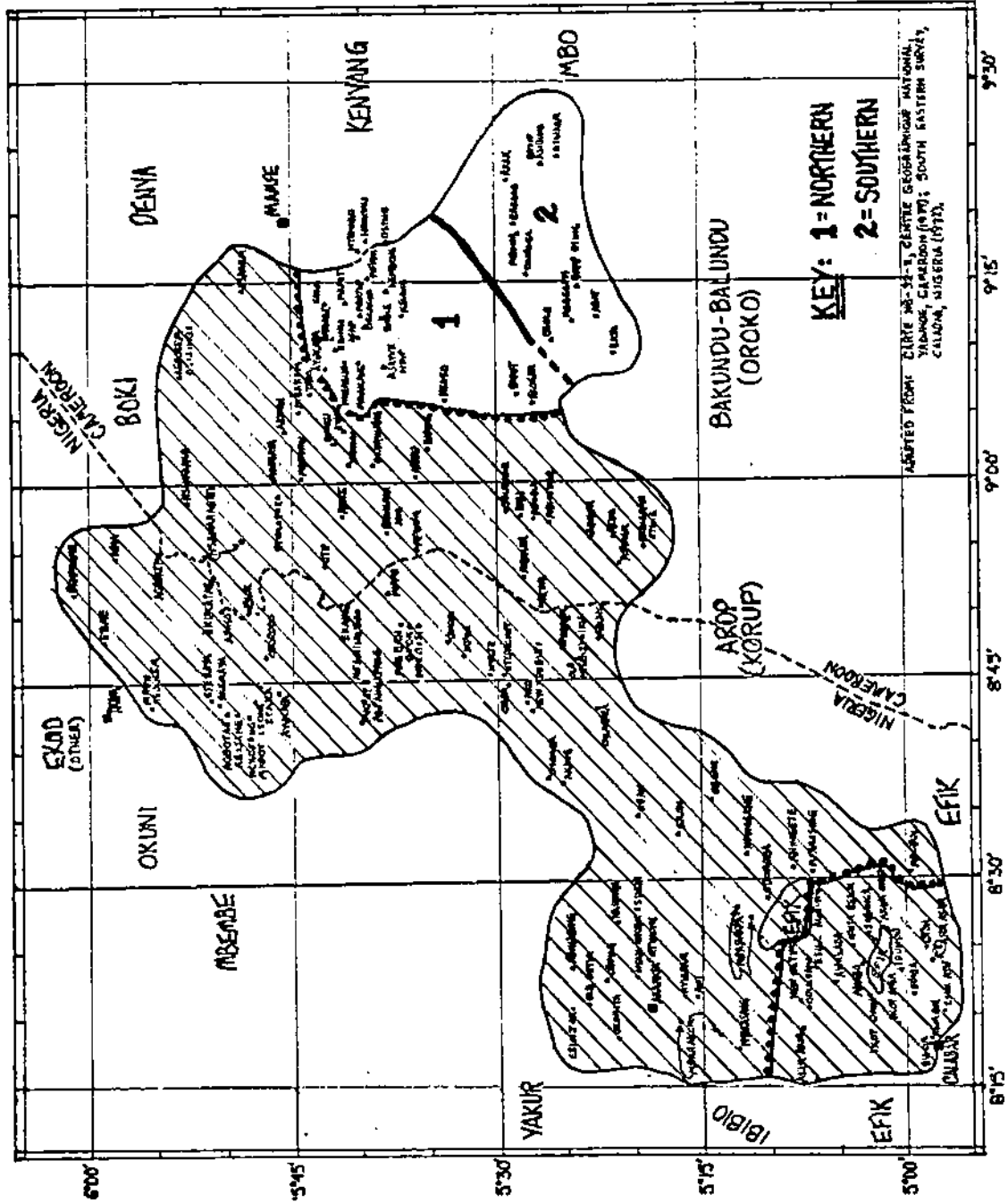
# MAP 3

## WESTERN SUB-DIALECTS



# MAP 4

## EASTERN SUB-DIALECTS





## Notes to chapter 1

<sup>1</sup>This information comes from the Centre Geographique National, Yaounde, Cameroon.

<sup>2</sup>This information comes from Talbot (1912) and from discussion with various Ejagham elders.

<sup>3</sup>These three forms represent the following noun classes: éjáyá (noun class 5), njáyá (noun class 1) and ájáyá (noun class 2).

<sup>4</sup>Of course, in deciding dialect boundaries there is often a degree of arbitrariness as to which features are the most salient or important in deciding where one dialect begins and another ends.

<sup>5</sup>This set of lexical items include -kén 'to carry, transport', kén 'ABILITATIVE MARKER', -kéd 'to drum a skin-covered drum'.

<sup>6</sup>This sub-dialect is equivalent to Crabb's (1965) "Southern Etung" or "H".

<sup>7</sup>The language helpers who provided the linguistic data upon which these dialect maps were drawn up were found in the following ways. First, in the case of some villages the chief or elders were asked to find the person who they thought best spoke their village dialect. This person was generally an older person (50 or older) who had been raised in the village and whose mother was also from that village. (It appeared, at least impressionistically, that one's mother and the village one was raised in had the greatest effect on which dialect one spoke.) However, this person was also frequently aided by others from the village who were younger. In the case of discrepancies between the primary helper and the others, the form given by the primary helper was recorded. Secondly, in the case of other villages it was not possible to find the chief or his representative, or to even visit the village. In these cases a person was found who was at least raised in the village and whose mother was (usually) from village. These people varied in age from 20 to 50. The villages in the first set included Nkimichi, Ayukaba, Tabo, Mbakem, Otu, Ajasso, and Big Qua Town. The villages in the second set included Assibong, Mbinda-Tabo, Ossing, Mfuni, Ogomoko, Ebinsi, Agbokem, Babong, Abakpa, Eyumojok, Bindeghe, Abijang, and Mbarakom.



PART I

PHONOLOGY

C H A P T E R 2

P H O N O L O G I C A L  
U N I T S

## 2.0 The Phonological Units

In this chapter and the next the segmental and supra-segmental units of the language are presented. The more significant allophonic variations are discussed, as well as the phonotactics of the segmental and suprasegmental units. Even though the phonology of Ejagham has been studied previously in varying degrees of detail<sup>1</sup>, this study differs in that numerous notes on dialect variation are included and certain changes in the actual analysis of the system have been made from previous analyses.

### 2.1 The segments

The following distinctive types of segments occur: consonants, vowels and syllabic nasals.

#### 2.1.1 The consonants

The table in (1) displays the twenty distinctive consonant segments according to their manner and point of articulation.

(1) Table of Consonants<sup>2</sup>

	Labial	Alveolar	Post-alveolar	Velar	Labio-velar
Plosive:					
vl:	p	t	č	k	kp
vd:	b	d	j	g	gb
Fricative <sup>3</sup> :	f	s			
Flap:		r			
Nasal:	m	n	ɲ	ŋ	
Glide:		y			w

##### 2.1.1.1 The plosives

The voiceless labial, alveolar, post-alveolar and velar

plosives are all aspirated in the initial consonant position of the root: à-píni [àp<sup>h</sup>íni] 'he tumbled', à-tâ [àt<sup>h</sup>â]<sup>4</sup> 'it stung', à-čô [àč<sup>h</sup>ô] 'he pounded', and à-kâ [àk<sup>h</sup>â] 'he stayed'.

The alveolar, post-alveolar and velar plosives are all fronted before the high, front vowels i and u. The alveolars become dentals, the post-alveolars become alveolars, and the velars become palatals. This fronting is represented phonetically with the symbol [ɲ]: à-ti [àt<sup>h</sup>ɲi] 'she found', à-di [àdɲi] 'she ate', à-tû [àt<sup>h</sup>û] 'she abused', à-dôd [àd<sup>h</sup>ôd]<sup>5</sup> 'it was dull (i.e. not sharp)', à-či [àč<sup>h</sup>ɲi] 'it (the leopard) called', à-ji [àjɲi] 'she gave birth', à-čû [àč<sup>h</sup>û] 'she puckered (her lips)', à-jû [àjû] 'she stole'; à-ki [àk<sup>h</sup>ɲi] 'she kept', à-gíni [àg<sup>(y)</sup>íni] 'she forgot', à-jû [àjû] 'she vomited', and à-gû [àg<sup>y</sup>û] 'it stunk'.

The voiceless velar plosive is optionally palatalized before the mid, front vowel ɛ: à-kêg [àk<sup>h</sup>êg]~[àk<sup>y</sup>êg] 'molar' and à-kê [àk<sup>h</sup>ê]~[àk<sup>y</sup>ê] 'she sliced'. The voiced velar plosive is obligatorily palatalized before the mid, front vowel ɛ and the high, front, rounded vowel u, but optionally palatalized before the high, front, unrounded i: à-gé [àg<sup>y</sup>é]<sup>6</sup> 'he entered', à-gû [àg<sup>y</sup>û] 'it stunk', but à-gíni [àgíni]~[àg<sup>y</sup>íni] 'he forgot'.

The voiced labial plosive b becomes a fricative in intervocalic position, but it only optionally becomes a fricative in utterance initial position: Ñ-bénè [ɲbénè] 'I ran', à-bénè [àβénè] 'he ran', but bénè [bénè]~[βénè] 'run!' There are at most three roots in which the voiced

labial plosive does not become a fricative between vowels: à-bé [àbê] 'he escaped', à-bén [àbễn] 'he broke (it) by snapping', and è-bén [èbễn] 'spleen'. On the basis of such roots, previous analyses (Crabb 1965, Tom and Eileen Edmondson 1977, John and Kathie Watters unpublished) posited a contrast between plosive b and fricative β. In this analysis such roots are considered exceptions to the general process described above, and so are marked in the lexicon as such. This analysis is made for two reasons. First, three roots are not considered sufficient to establish a contrast. Instead, such a small set seems to indicate exceptions (i.e. irregular sound changes) to a general process. Secondly, not all WE sub-dialects have these three roots marked in this way. Some only have the root -bé 'to escape' in this class (e.g. Bendeghe), while others have no such exceptions (e.g. southern WE)?.

In the second consonant position of the root, the voicing distinction among the plosives is neutralized. If the second consonant position is pre-pausal, then the plosive is voiceless and unreleased, represented here by the capitals [P], [T], and [K]: é-nôb [énôP] 'it is good', è-kôd [èk<sup>h</sup>ôT] 'we like' and è-nûg [ènûK] 'we rubbed (eyes)'. If the second consonant position is intervocalic, then the plosive is a continuant: à-fíbi [àfíβi] 'he whistled', í-fúdí [ífúrí] 'cane rope' and ò-jéyé [òjéγè] 'you continued'. If the second consonant is adjacent to a voiced consonant, then the plosive is voiced: ò-tôb N-bí [òtôb mbí] 'this mud',

ò-kòd Ñ-bí [òk<sup>h</sup>òd mbí] 'this love' and ò-fâg Ñ-bí [òfâg mbí] 'this broom'.

In addition, in the second consonant position the labial and velar continuant variants are optionally labialized if the preceding vowel is the high, back u: ì-yúbí [iyúβí]~[iyúβ<sup>w</sup>í] 'sweat' and è-bùgì [èβùgì]~[èβùg<sup>w</sup>ì] 'a grinding board'. Also in the second consonant position, the velar plosives become uvular plosives when they are preceded by the low, back vowels a and ɔ: è-kòg [èk<sup>h</sup>òg] 'harmattan' and è-gàg [èg<sup>h</sup>àg] 'cactus', or Ñ-kògè [Ñk<sup>h</sup>ògè] 'a fallen tree across a path' and à-čágè [àč<sup>h</sup>ágè] 'he played'<sup>9</sup>.

Turning to the question of how to represent the plosives in the second consonant position, either an archiphoneme or a fully-specified-phoneme analysis could be adopted. In the archiphoneme analysis the features [±voiced], [±continuant], and [±released] would not be specified. The value of these features would be specified by rules which would be sensitive to the environment in which the plosive occurred. Such an analysis would mean that three additional phonological units would be needed in addition to those in (1). These three units could be represented as B, D and G. However, there is no need to introduce additional units to those already found in the language. Instead of archiphonemes fully-specified-phonemes could be used. In this case, the choice is between the voiceless plosives p, t and k and the voiced plosives b, d and g. If the voiceless plosives were chosen, then three rules would be necessary<sup>9</sup>. One rule would

change them into unreleased plosives in utterance final position. Another rule would change them into voiced plosives when they precede a voiced consonant. A third rule would change them into voiced continuants in intervocalic position. However, if the voiced plosives were chosen, then only two rules would be necessary. One rule would change them into voiceless, unreleased plosives in utterance final position. A second rule would change them into continuants in intervocalic position.

In this study the fully-specified-phoneme analysis with the voiced plosive set b, d and g as the underlying forms is adopted. This choice is made for two reasons. First, the fully-specified-phoneme analysis requires fewer phonological units than does the archiphoneme analysis. Secondly, the voiced plosive set requires fewer rules (or environments---see note 9) than does the voiceless plosive set in order to derive the correct phonetic representation. The underlying assumption for both of these reasons is that the simpler description in terms of units and rules is to be preferred.

#### 2.1.1.2 The fricatives

The fricatives do not have any significant allophonic variation.

#### 2.1.1.3 The flap

The flap does not have any significant allophonic variation.

#### 2.1.1.4 The nasals

The nasals are unreleased in pre-pausal position: è-tûm [èt<sup>h</sup>ʊm] 'work', Ñ-gûn [ŋgûn] 'fire' and à-tôn [àt<sup>h</sup>ʊn] 'ashes'. In the second consonant position the labial and velar nasals are optionally labialized when they are preceded by the high, back vowel u: Ñ-gûmí [ŋgûmí]~[ŋgûm<sup>w</sup>í] 'wild forest hog' and ð-jûnî [ðjûnî]~[ðjûn<sup>w</sup>î] 'busily moving from place to place'. This labialization of the labial and velar nasals parallels the labialization of the labial and velar plosives discussed in 2.1.1.1. With both the plosives and the nasals, the [+grave] consonants are optionally labialized, while the [-grave] consonants are never labialized.

The nasals ñ and ŋ are in complementary distribution except for one root. The post-alveolar nasal ñ occurs in the first consonant position of the root, and the velar nasal ŋ occurs in the second consonant position. The one exception is à-nárè [ànarè]~[àn<sup>w</sup>árè] 'he clawed'. For some speakers, who are possibly influenced by other WE sub-dialects or EE, this form is pronounced à-ñárè [añárè]. Thus, in terms of systematic phonemes in the language only one of these is necessary. But for expository reasons both are specified in (1) and will be differentiated throughout the rest of this study.

#### 2.1.1.5 The glides

The glides do not demonstrate any significant allophonic variation. But it should be noted that for certain lexical items there is variation between w and ɛ<sup>w</sup> between speakers:



à-wô 'she drank' or à-g<sup>w</sup>ô; à-wôg 'she patted (the baby)'  
 or à-g<sup>w</sup>ôg<sup>10</sup>.

### 2.1.2 The vowels

The table in (2) displays the seven distinctive vowel segments according to their relative height and position in the oral tract.

(2) Table of Vowels<sup>11</sup>

	front	central	back
high	i	ɤ	u
mid	ɛ	ə	ɔ
low		a	

The table in (2) clearly imposes a symmetrical distribution on the vowel system. However, from the various ways in which vowels condition consonants, the high central vowel should actually be considered a high front vowel. As such, it behaves like i in conditioning palatalization of alveolars and velars, and the fronting of alveolars and post-alveolars, as discussed in 2.1.1.1. Thus, the table in (2) could be modified to that in (3).

(3) Table of Vowels<sup>12</sup>

	front		back	
	unrounded	rounded	unrounded	rounded
high	i	ɤ		u
mid	ɛ		ə	ɔ
low			a	

#### 2.1.2.1 The front vowels

The high, front, unrounded i becomes a high, central

unrounded [ɪ] when it follows a labial or labial-velar consonant and precedes a velar consonant within the root: é-bíg [éβíK] 'it is enough' and ò-kpígí [òkpíyì] 'you turned'. It becomes an open, high, front, unrounded I when it follows any consonant other than a labial or a labial-velar and precedes a velar consonant within the word: à-ríg [àríK] 'ropes', è-jíg [èjíK] 'respect', and ò-sín [òsín] 'mangoes'.<sup>13</sup>

The mid, front, unrounded vowel e occurs as [e] when it is a prefix and when the first vowel of the root is [+high]: è-bú [èβú] 'time', è-kú [èk<sup>h</sup>ú] 'funeral', and é-fí [éfí] 'boil (of body)'. It also occurs as a slightly raised open, mid vowel [ɛ] before pause: è-fě [èfɛ] 'glass, mirror' and těbě [t<sup>h</sup>ɛβɛ] 'slow, careful'.<sup>14</sup>

The high, front, rounded u has no significant allophonic variation.<sup>15</sup>

#### 2.1.2.2 The back vowels: unrounded

The mid, back, unrounded vowel ə optionally occurs as a slightly fronted central, mid, unrounded vowel [ɤ] before labial consonants: ̀N-jəm [̀ñjəM]~[̀ñjəM] 'back' and ̀à-fəbè [̀àfəβè]~[̀àfəβè] 'it flew'.<sup>16</sup>

The low, back, unrounded vowel a optionally occurs as a slightly raised [ʌ] before velar consonants: ̀N-bǎŋ [̀mbǎŋ]~[̀mbǎŋ] 'palm nut kernel' and ò-kǎg [òk<sup>h</sup>ǎg]~[òk<sup>h</sup>ǎg] 'you put in'.<sup>17</sup>

#### 2.1.2.3 The back vowels: rounded

The high, back, rounded vowel u optionally occurs as

an open, high, back, rounded vowel [ɔ] before velars: N-bûg [ɲbɔ̃K]~[ɲbɔ̃K] 'forehead' and à-tûg [àt<sup>h</sup>ɔ̃K]~[àt<sup>h</sup>ɔ̃K] 'he fetched',<sup>18</sup>.

The mid, back, rounded vowel ə occurs as [o] when it is a prefix of a root whose first root vowel is [+high]: ò-ċî [òċ<sup>h</sup>i] 'face' and ò-kún [òk<sup>h</sup>ún] 'firewood',<sup>19</sup>.

### 2.1.3 The syllabic nasal

The syllabic nasal is used as a noun class prefix and as a subject prefix. It may be considered in terms of the phonemic system as a single unit, but phonetically it has eight realizations since it is homorganic to the following consonant. Consider the following assimilations:

(4) a. N --> [m]/ \_\_bilabials

e.g. N-pôd --> [ɲp<sup>h</sup>ôT] 'I smashed'  
 N-bôb --> [ɲbôP] 'I tied'  
 N-môn --> [ɲmôN] 'child'

b. N --> [ɲ]/ \_\_labiodental

e.g. N-fâg --> [ɲfâK] 'I swept'

c. N --> [n]/ \_\_alveolar

e.g. N-tí --> [ɲt<sup>h</sup>í] 'money'  
 N-sé --> [ɲsé] 'father'

d. N --> [ɲ̃]/ \_\_post-alveolar

e.g. N-ċô --> [ɲ̃ċ<sup>h</sup>ô] 'I pounded'  
 N-jô --> [ɲ̃jô] 'dog'

e. N --> [ŋ]/ \_\_velar

e.g. N-kôn --> [ɲk<sup>h</sup>ôn] 'bee'  
 N-gôn --> [ɲgôn] 'type of hornbill'

f. N ---> [ŋm] / \_\_labio-velar

e.g. Ñ-kpè ---> [ŋɛkpè] 'side'

Ñ-gbè ---> [ŋmgbè] 'leopard'

g. N ---> [ĩ] / \_\_alveolar glide

e.g. Ñ-yò ---> [ĩyò] 'I roasted'

h. N ---> [ũ] / \_\_velar glide

e.g. Ñ-wàm ---> [ũwàm] 'tsetse fly'

In (4g) and (4h) the tilde '~' indicates that the vowel is nasalized. In some sub-dialects of WE the nasalized high, front vowel is replaced by [ĩ̃] as in (4a), and the nasalized high, back vowel is replaced by [ũ̃] as in (4e).

#### 2.1.4 Restrictions on occurrence

None of the above segments are restricted to a specific word class or classes. Neither are they restricted to a set of loanwords, whether recognizable as such to the Ejagham speakers or to the linguist as a set of historical borrowings. There are some segments which occur only in ideophones and in responses. For example, in ideophones a trilled ɛ̃ occurs. In responses nasalized vowels such as ĩ̃ occur along with the glottal stop ʔ: ʔĩ̃ĩ̃ 'yes' and ʔĩ̃ʔĩ̃ĩ̃ 'sorry, empathy'. These sounds in ideophones and responses have not been systematically studied and so are not presented here.

## 2.2 Phonotactics

In order to discuss the phonotactics of the various segments, reference will be made to the 'word', 'root', 'prefix' and 'suffix'. The term 'word' refers to any item which is a minimal, expressible unit in isolation. In most cases a 'word' consists of two or more morphemes, usually a noun or verb root and their appropriate affixes. In most cases it is most appropriate to discuss the phonotactics in terms of 'roots' rather than 'words'.

### 2.2.1 The consonants

#### 2.2.1.1 Final consonants

Final consonants are permitted in roots. However, they form a restricted set consisting of the three plosives b, d and g, and the three nasals m, n and ŋ. No other consonants occur root finally. Examples include à-kûb 'he greeted', à-kûd 'it dried up', à-kûg 'he shouted', à-bôm 'he slashed (self)', à-fôn 'he has' and à-bôn 'he plucked'. Note that in words without suffixes this restriction on final consonants also applies since the root final consonant is identical to the word final consonant in such cases<sup>20</sup>.

#### 2.2.1.2 Initial consonants

Initial consonants in roots occur without any restrictions. All are attested in this position. Note that in words without prefixes this lack of restriction also applies since the root initial consonant in such cases is identical to the word initial consonant<sup>21</sup>.

### 2.2.1.3 Consonant clusters

Consonant clusters do not occur in WE, except for a small set which result from a deletion process. See section 3.1.3.4 for discussion of this process and the resulting forms.<sup>22</sup>

### 2.2.2 The vowels

#### 2.2.2.1 Final vowels

In discussing final vowels, a distinction has to be made between -CV and -CVCV roots. In the final vowel position of -CV roots, any vowel may occur except the mid, back, unrounded vowel ə. Thus, morphemes of the shape \*Cə are not permitted in the language. In the final vowel position of -CVCV roots, the set of vowels is restricted to those that are front and unrounded. The height of the vowels is conditioned by the height of the first root vowel, as discussed in 3.1.1.1. Only two roots have been found with other than a front, unrounded vowel in final position, and in both cases the vowel is an ə which varies with the front, unrounded vowel from speaker to speaker: ó-kùṅá or ó-kùṅi 'chameleon', and á-biá or á-bií 'haste'.

These same restrictions hold for words. Besides the fact that the final vowel of words without suffixes is identical to the final vowel of roots, words (specifically verbs) which take suffixes have the same restrictions. This is due to the fact that one verbal suffix is a front, unrounded vowel which is subject to the same conditioning discussed in 3.1.1.1.

The other verbal suffix is underlyingly -ag, which on the surface is either -g or -a, thus making these verbs similar to the two nouns which optionally have a final a<sup>23</sup>.

#### 2.2.2.2 Initial vowels

There are no root initial vowels, but there are word initial vowels. In the case of nouns and verbs these vowels are prefixes and are restricted to the set i, ɛ, a and ə.<sup>24</sup> These vowels are used to mark the noun classes of nouns and the subjects of verbs. Thus, the restriction on word initial vowels is morphological rather than phonological, although historically the restrictions may be due to certain phonological processes. For example, the mid, back, unrounded vowel ə has developed only root internally, generally where it is preceded and followed by consonants. Thus, it would be impossible for the ə to ever develop into a word initial vowel as long as one of the conditioning factors was a preceding consonant<sup>24</sup>.

#### 2.2.3 The syllabic nasal

The syllabic nasal only occurs word initially. It is used as a noun class prefix on nouns and as a subject prefix on verbs.

#### 2.2.4 Morpheme structure and word structure

Morphemes are either monosyllabic or disyllabic, having the following shapes: -CV, -CVC, -CV.V, -CV.CV, -V or V-, CV-, -VC and N-. Words are generally disyllabic or

trissyllabic, although a small set of particles and adverbs are monosyllabic. This difference between morpheme structure and word structure is due to the fact that all nouns consist of two morphemes, while infinitive and finite forms of the verb consist of two or more morphemes. Thus, apart from the small set of particles and adverbs mentioned above, there is no direct correspondence between morpheme structure and word structure.

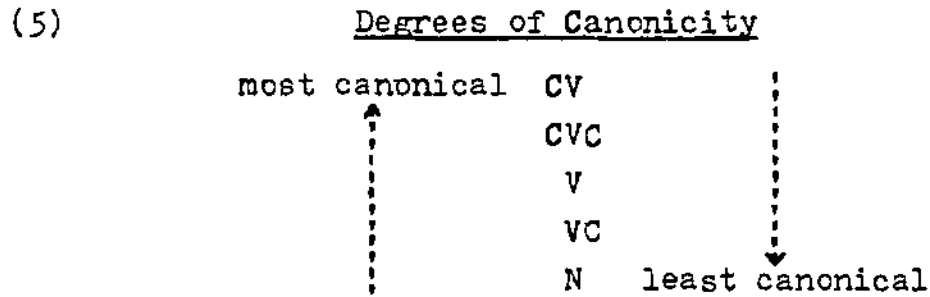
#### 2.2.5 Syllabification<sup>25</sup>

The canonical syllable structure is CV. However, there are in fact five syllable shapes: CV, CVC, VC, V and N. Within the word and across word boundaries the processes of syllabification and resyllabification (i.e. the process by which the shape or the status of a syllable within a word may change when it occurs within a larger context) do not observe morphological boundaries. Instead, these processes attempt to establish as many canonical CV syllables as possible.<sup>26</sup>

In the case of these processes, it would be profitable to distinguish between the various syllables in terms of 'degrees of canonicity'. Certain syllables are more canonical than others in that they remain unchanged or little changed in shape or status within the word or across word boundaries. Others are less canonical than others in that they may completely lose their characteristic shape or even their status as syllables. The following scale in (5) displays



these distinctions.



According to (5) the CV syllable is the most canonical, and as such it is generally not altered either in shape or status. As a general rule, any sequence of phonemes which can be resyllabified across a syllable boundary to form a CV syllable will be so resyllabified.

At the other end of the scale, whenever a syllabic nasal is preceded by a vowel, it will optionally join with the vowel and function as the final consonant of a new CVC or VC syllable. In the process, the syllabic nasal loses its status as a syllabic nucleus.

Thus, the underlying dynamic in the resyllabification process is twofold, whether within the word or across word boundaries. First, the language attempts to form as many canonical syllables as possible. Secondly, the language attempts to reduce the number of non-canonical syllables as much as possible. The following two rules specify the conditions under which such syllabification and resyllabification occur.

- (6) a. C. --> .C / (C)V\_\_V(C)  
b. .N --> N. / (C)V\_\_ (optional)

According to rule (6a), V and VC syllables (re)syllabify

to form CV and CVC syllables, respectively, whenever a consonant immediately precedes them. The corollary is that CVC and VC syllables (re)syllabify to CV or V, respectively, if the final consonant can function instead as an initial consonant. Compare the following morphological structures with their syllabic structures: èj'-a` [è.já] 'your' (of noun class 5), è-sén-ém [è.sé.ném] 'to write', è-jùm á-ji [è.jù.má.ji] 'that thing'.

According to rule (6b), CV and V syllables optionally resyllabify to form CVC and VC syllables whenever they are followed by a syllabic nasal. In the process the syllabic nasal loses its status as a syllabic nucleus and becomes a syllable final consonant: è-bi Ñ-ji [è.βiñ.ji]~[è.βi.ñ.ji] 'this mongoose' and gùdí Ñ-kǒg [gù.rín.k<sup>h</sup>ǒg]~[gù.rí.n.k<sup>h</sup>ǒg] 'sell (the) fowl!'. It is true that if rule (6b) does apply, not only has a syllabic nasal become a syllable final consonant, but also a more canonical syllable has become less canonical. This result seems to conflict with the underlying dynamic involved. However, it is in exactly such cases where the two parts of the underlying dynamic conflict: to form and maintain the CV and V syllables because they are more canonical than N means that N would remain a syllabic nucleus, but to reduce the number of non-canonical syllables and make N a syllable final consonant means that CV and V syllables become reduced in terms of canonicity. It is no doubt due to the conflicting results of these two principles under these circumstances that speakers are ambivalent as to

what to do with syllabic nasals when they are preceded by a vowel.

### 2.2.6 Sequential restrictions

The significant sequential restrictions concern those within noun and verb roots. Those within the word generally involve morphological restrictions, such as the type of prefix or suffix which may be used with a given root, rather than phonological ones.

In terms of the first consonant and the first vowel of noun and verb roots, the consonants p, b, kp and m do not occur before the front, rounded vowel u. This restriction is formalized in (7):

$$(7) \ * \begin{bmatrix} \text{-syllabic} \\ \text{+labial} \\ \text{-continuant} \end{bmatrix} \begin{bmatrix} \text{+syllabic} \\ \text{+round} \\ \text{-back} \end{bmatrix}$$

Also between the first consonant and the first vowel of roots, the nasals m, ɱ and ɲ do not occur before the back, rounded vowel u. This restriction is formalized in (8):

$$(8) \ * \begin{bmatrix} \text{-syllabic} \\ \text{+nasal} \\ \text{-coronal} \end{bmatrix} \begin{bmatrix} \text{+syllabic} \\ \text{+round} \\ \text{+back} \\ \text{+high} \end{bmatrix}$$

The inclusion of ɲ in this last restriction is not really significant since it is found only in one root as a root initial consonant.

In terms of the first vowel and the second consonant of noun and verb roots, the back, unrounded vowel a never occurs before the velars ɲ and g. This restriction is formalized

in (9):

(9) \*#[-syllabic]  $\left[ \begin{array}{l} +\text{syllabic} \\ +\text{back} \\ -\text{round} \\ -\text{low} \end{array} \right] \left[ \begin{array}{l} -\text{syllabic} \\ +\text{velar} \end{array} \right]$

Also in this context the front, rounded vowel ɤ never occurs before the labials m and b. Since the other labials p and f do not occur in the second consonant position of roots, this restriction can be generalized to all labials, and formalized as in (10):

(10) \*#[-syllabic]  $\left[ \begin{array}{l} +\text{syllabic} \\ -\text{back} \\ +\text{round} \end{array} \right] \left[ \begin{array}{l} -\text{syllabic} \\ +\text{labial} \end{array} \right]$

In fact, sequence restrictions (7) and (10) indicate a much more general restriction on the occurrence of the front, rounded vowel ɤ: namely, it does not occur adjacent to a bilabial<sup>27</sup>. It cannot be generalized to all labials since ɤ does follow the labial-dental f.

Besides the above restriction on the back, unrounded vowel ə, there is another restriction on its occurrence in terms of morpheme shapes. It occurs only in roots with the shape -CVC or -CVCV, and only as the first vowel. In other words, it occurs only between consonants and therefore never in an open, monosyllabic -CV root<sup>28</sup>.

There is no consonant harmony within the language, nor are there any significant restrictions on the co-occurrences of certain consonants in the first consonant position and those in the second consonant position. However, there is a vowel assimilation process between the first and second vowel

of a -CVCV root. See 3.1.1.1 for further discussion of this process.

### 2.3 The suprasegmental: tone and its phonotactics

The significant suprasegmental in Ejagham is tone (or pitch). Length does not have a significant lexical function in WE<sup>29</sup>. In the Eyumojok-Ndebaya sub-dialect and other sub-dialects of WE, long vowels do occur in imperative forms of certain -CV verb roots, but these may be analyzed as two vowels separated by a morpheme boundary. The imperative verb form consists of the verb root plus a low tone suffix, which in some cases (i.e. with a small class of -CV verb roots) is a front vowel with low tone. For example, the verb root -fi 'to grasp' in the imperative is fi 'grasp!' This is analyzed as fi-i 'grasp-IMPER:SFX', but on the surface the rising tone simplifies to low tone and in the process produces a final falling tone with the low tone of the suffix.

Neither stress nor intonation have a significant function in the language in distinguishing syntactic or semantic categories. A given utterance can be described simply in terms of the interaction of the various lexical tones found in the given utterance and certain processes of tonal assimilation, deletion and downdrift.

### 2.3.1 The role of tone

Tone is used to distinguish lexical items from one another. For example, the following are generally distinguished from each other by tone: è-bì [èβì] 'mongoose', è-bí [èβí] 'pot', è-bi [èβi] 'palm nut cluster' and é-bí [éβí] 'red'. A set of four lexical items distinguished only by tone is unusual. In most cases such sets only involve two items, and in a few cases three. About 20% of the lexical items in the language belong to such sets in which the minimal distinguishing factor between the two, three or four members of the set is tone<sup>30</sup>.

Tone is also used to distinguish morphologically different forms of the same word. This use is most prominent in the verbal system. For example, the perfective, perfect, hortative and conditional are generally only distinguished by tone. Consider the examples in (11):

(11) a. Low-High Tone Class of Verb Roots:

ò-kâg	òk <sup>h</sup> âQ	'you put inside' (perfective)
ó-kàg	ók <sup>h</sup> àQ	'you have put inside' (perfect)
ó-kâ'g	ók <sup>h</sup> âQ	'you should put inside' (hortative)
ó-kăg	ók <sup>h</sup> ăQ	'if you put inside' (conditional)

b. High Tone Class of Verb Roots:

ò-kôn	òk <sup>h</sup> ôN	'you sang' (perfective)
ó-kòn	ók <sup>h</sup> òN	'you have sung' (perfect)
ó-kón	ók <sup>h</sup> ón	'you should sing' (hortative)
ó-kón	ók <sup>h</sup> õN	'if you sing' (conditional)

In addition to these verbal forms, the general negative and the hortative negative are only distinguished by tone:

á-kà-kǎg 'he did not put inside' and à-kǎ-kǎg 'he should not put inside'. See the appendix to chapter 3 for other aspects which are minimally distinguished from other aspects by tone.

Outside of the verb system there are at least two other instances where tone is used to distinguish morphologically different forms of the same lexeme. First, in the case of the associative marker which is used in genitive noun phrases and other noun phrases of the form 'x or y' the tone is low if the first or head noun belongs to noun classes 1 or 9, but it is high if the first noun belongs to any other noun class: N-ñám í N-tém 'animal of friend' where N-ñám belongs to noun class 9, but ò-ñám í N-tém 'animals of friend' where ò-ñám belongs to noun class 14.

Secondly, the particle which introduces complement clauses (i.e. subordinate noun clauses) has two morphological forms which are only distinguished by tone. If the subject of the superordinate clause is 2ps or 3ps, then the particle has the form sè. If the subject is instead 1pp, 2pp or 3pp, then the particle has the form sè<sup>31</sup>.

### 2.3.2 The tones

On the surface Ejagham has three level tones and three contour tones<sup>32</sup>. The following paradigms demonstrate these different tones. Two verb roots are used in these paradigms:

- fág 'to sweep' and -fǎg 'to lead in song' .
- (12) a. á-fág [áfáQ] 'they should sweep'  
 b. á'-fág [áfāQ] 'if they sweep'

- c. á-fàg [áfàQ] 'they led in song'
- (13) a. á-fàg [áfàQ] 'they led in song'
- b. á-fàg [áfàQ] 'they should lead in song'
- c. á-fàg [áfàQ] 'if they lead in song'

In (12) three different phonetic levels are indicated: high [´], mid [˘], and low [ˋ]. The phonetic mid level in (12b) may be considered a 'downstepped' high tone in terms of the phonemic system, the downstepped high being marked as ˘́. For further discussion of this tone as either a phonemic mid tone or downstepped high tone, see section 3.3.1 below.

In (13) three different phonetic contour tones are indicated: falling-to-low [ˋ], falling-to-mid [˘], and rising [ˊ]. The rising tone phonetically moves from low to mid level rather than to high. The contour in (13b) could be analyzed as a high followed by a downstepped high over one syllabic unit. Again, see section 3.3.1 for further discussion.

In the case of nouns, these distinctions are found in two places: first in the elicitation form of the nouns, and secondly in the object position following verbs with final high tone (see sections 3.2.1.1 and 3.3.4.2). In the elicitation forms only a five way contrast is found on noun roots, while in the object forms following high tone the six way contrast is found.

(14)	<u>Elicitation form</u>	<u>Object form</u>
a.	é-tí [ét <sup>h</sup> í]	é-tí [ét <sup>h</sup> í] 'tree'
b.	è-bí [èβí]	é-bí [éβí] 'pot'



c.	è-bì [èβì]	é-bì [éβì]	'mongoose'
d.	è-bí [èβí]	é-bí [éβí]	'palm nut cluster'
e.	é-dí [édí]	é-dí [édí]	'food'
f.	ó-jǎ' [óǰǎ']	ó-jǎ' [óǰǎ']	'tomorrow'
g.	è-jǐ [èǰǐ]	é-jǐ [éǰǐ]	'place'

In the case of the elicitation forms, no mid level is found on a noun root like the mid level in (12b), but in the object forms all three levels and all three contours are found.

### 2.3.3 The phonotactics of tone

#### 2.3.3.1 Restrictions according to syllable types

Although the rising tone on an open syllable -CV may be heard as longer than any other tone, there is no significant phonological restriction of tones to specific types of syllables. However, there is a morphological restriction in relation to the syllabic nasal: namely, the syllabic nasal is found only with high, low and falling-to-low tones because the syllabic nasal only occurs as a noun and verb prefix and only these three tones are found on such prefixes.

#### 2.3.3.2 Consonant interaction with tone

There is no significant interaction between the preceding or following consonant and the tone of the adjacent syllabic segment:

#### 2.3.3.3 The distribution of tone

Only the basic distributional facts are outlined here. A more detailed discussion of the distributional facts and their significance is found in section 3.3.

Monosyllabic morphemes have the following tones: nà 'with',

kǎ 'in, on, at, to, from', ná 'FOCUS MARKER', and kpág 'quietly'. The downstepped high or mid tone, and the falling-to-mid tone are not found on monosyllabic morphemes.

The distribution of tone on nouns and verbs is significant only in terms of tonal distribution on bisyllabic and trisyllabic words. For nouns the following sequences of tones are found in elicitation forms:

(15) <sup>33</sup>	<u>Bisyllabic</u>	<u>Trisyllabic</u>
a. L-L(L)	è-bì 'mongoose'	è-čìdì 'stupidity'
b. L-L H	è-jí 'place'	è-gòmé 'plantain'
c. L-H L	è-bì 'palm nut cluster'	è-jónè 'thorn'
d. L-H(H)	è-bí 'pot'	è-fémé 'animal spirit'
e. H-L(L)	----	-----
f. H-L H	----	-----
g. H-H L	é-dí 'food'	é-résì 'rice'
h. H-H(H)	é-tí 'tree'	é-bídí 'pit'
i. H <sup>1</sup> -H(H)	----	-----
j. H-H <sup>1</sup> H	ó-jó <sup>1</sup> 'tomorrow'	é-báé 'two'
k. HL-H L	é-čá 'palm nut chaff'	é-sòṅé 'worm'

Tone sequences (15c), (15f) and (15i) are not found on nouns in their elicitation forms. However, in the object position after a verb with a final high tone these tone sequences do occur: nouns with the tone sequences (15a) and (15c) become nouns with the tone sequence (15e), nouns with the tone sequence (15b) become nouns with tone sequence (15f) and nouns with tone sequence (15d) become nouns with tone sequence (15i). Thus, in this object position tone sequences (15a) through (15d) do not occur, but sequences (15e) through

(15k) do occur.

Note that in the elicitation forms of the nouns all tone sequences with a low tone prefix are attested. Proto-Bantu is reconstructed as having low tone nominal prefixes (Meeussen 1967:97) so one would expect low tone prefixes on Ejagham nouns. The surprise is that a number of nouns (approximately one-sixth) have high tone prefixes. However, in this case they are restricted in that only another high tone can follow them; the initial tone of the noun root cannot be lower than the prefix tone. It is not yet clear why this restriction exists, but it does seem clear that nouns with the tone sequence (15j) derive historically from a time when these nouns had tone sequence (15f) instead. The initial low tone on the noun root was raised and the final high tone downstepped, thus (15j) was derived. This same process may also account for the lack of any nouns with the sequence of (15e). The initial low tone would have been raised to high tone, thus deriving sequence (15g). But at this point there are no known examples of this process as there is with nouns changing from (15f) to (15j). However, this process would not explain why sequence (15i) does not occur in this dialect. Nouns with the original sequence of (15d) could have taken a high tone prefix and taken the sequence (15i), but none have done so. Thus, until it is understood why numerous nouns have a high tone prefix rather than a low tone prefix, the non-occurring tone sequences of noun elicitation forms will not be well understood.

Turning to verbs, bisyllabic and trisyllabic verb forms can be found for tone patterns (15b) through (15j). Verb forms of four and five syllables also occur, but the tone patterns on these are highly restricted since the tones on the prefixes are themselves highly restricted. See the appendix of chapter 3 where all of the verb forms are given along with their surface and underlying tones. For the purposes of the exposition, examples of only the bisyllabic and trisyllabic verb forms are given in (16).

(16) <sup>34</sup>	<u>Bisyllabic</u>	<u>Trisyllabic</u>
a. L-L(L)	-----	-----
b. L-L H	à-fǎg 'she should lead in song'	à-rèbé 'she should open'
c. L-H L	à-fâg 'she led in song'	à-rébé 'she opened'
d. L-H(H)	à-fág 'she should sweep'	à-rébé 'she should lick'
e. H-L(L)	á-fàg 'they have swept'	á-rèbé 'they have opened'
f. H-L H	á-fǎg 'if she leads in song'	á-rèbé 'if she opens'
g. H-H L	á-fâg 'they swept'	á-rébé 'they licked'
h. H-H(H)	á-fág 'they should sweep'	á-rébé 'they should lick'
i. H <sup>1</sup> -H(H)	á <sup>1</sup> -fág 'if she sweeps'	á <sup>1</sup> -rébé 'if she licks'
j. H-H <sup>1</sup> H	á <sup>1</sup> -fǎg 'they should lead in song'	á <sup>1</sup> -rébé 'they should open'
k. HL-H L	-----	-----

In verb forms involving a subject prefix and a verb root, tone sequences (16a) and (16k) do not occur. These restrictions can be captured as follows: 1) every verb form involving a subject prefix and a verb root must have at least one high tone in its sequence of tones, and 2) no subject prefix can have a contour tone. The first generalization is not surprising because the two verb root tone classes involve roots with low-high tones and roots with simple high tones. But the existence of high tone within the underlying tone sequence of every verb root does not mean it would be impossible to have a replacive tone which would derive a sequence like (16a). The second generalization is not surprising since Meeussen (1967:97) reconstructs only low and high tones for verb subject prefixes. For more discussion of tonal processes which derive these surface tones in (16), see section 3.3.4.

#### 2.3.3.4 The principle of tone distribution

In the examples in (15) and (16) it can be seen that contour tones are restricted in their distribution: they only occur on the second syllable of bisyllabic words. The exceptions in (15k) represent a small class of eighteen words, three of the bisyllabic type and fifteen of the trisyllabic type. The vast majority of nouns, however, fall under one of the other sequences given in (15):

The principle underlying this distribution of contour tones is that contours actually represent two level tones which have merged or conflated onto a single syllabic unit.



A second type of sequence in which significant downdrift occurs involves a sequence of low tones utterance finally. In this case each low tone is slightly lower than the low tone preceding it, as exemplified in (18):

(18) á-yàm é-dî á-kàd(ε) à-nè à 'have they cooked food  
and given it to some  
people?'

[á yàm é dî á k<sup>h</sup>àr à nè à]

In (18) four low tones occur in sequence utterance finally, and each one is slightly lower than the preceding one.

## Notes to chapter 2

<sup>1</sup>Three previous studies of Ejsgham phonology have been made: All three deal with sub-dialects of Western Ejsgham. First was Crabb's study (1965.26-31, 34-35, 38-47): It was a comparative study of various Ekoid languages and dialects. It included three sub-dialects of Western Ejsgham spoken in Ikom Division, Nigeria. The study was researched in 1963 and 1964. The second study was made by Tom and Eileen Edmondson (1977). It concentrated on one of the sub-dialects covered by Crabb, the Bendeghe sub-dialect of Ikom Division, Nigeria. However, their study was more detailed than Crabb's. Although the study was not put into microfiche form until 1977, the research was done in 1964 and 1965, and the basic draft written in 1966. The third and most detailed phonological account was made by John and Kathie Watters (unpublished). It covers a fourth sub-dialect of Western Ejsgham, that of Eyumojok-Ndebaya which is spoken in Manyu Division, Cameroon. This dialect is closely related to the three sub-dialects studied by Crabb and the one studied by the Edmondsons. It was researched in 1974 and 1975. This third study provides the basis for chapters 2 and 3. Many of the details are included here from that study in order to make them accessible to the linguistic public.

<sup>2</sup>In order to compare the consonantal structure of the three major Ejsgham dialects, the following table is given. This table is not a table of correspondences; it is only a list



of the consonants found in each of the major dialects.

(22) Consonants of Ejagham Dialects

<u>Western Ejagham</u>	<u>Eastern Ejagham</u>	<u>Southern Ejagham</u>
p	p	p
t	t	t
č	č	-
k	k	k
kp	kp	kp
b	b	b
d	d	d
j	j	j
g	g	g
gb	gb	gb
f	f	f
s	s	s
-	ɸ	-
-	(z)	-
-	ɣ	-
r	r	-
-	l	-
m	m	m
n	n	n
ñ	ñ	ñ
ŋ	ŋ	ŋ
y	y	y
w	w	w

SE does not have č since historically č became s in this dialect. Unlike WE and SE, EE has the fricatives ɸ, z and ɣ, as well as the lateral l. However, the z in EE could probably be treated as an intervocalic allophone of j in most sub-dialects. That is why it is in parentheses. Finally, it has been tentatively concluded that SE does not

have a phonemic r, since it appears to be in complementary distribution with d.

<sup>3</sup>Note that a voiced labial fricative b is not included in this table of consonants. This differs from the previous analyses by Crabb (1965), Tom and Eileen Edmondson (1977) and John and Kathie Watters (unpublished), all of whom treated b and β as separate phonemes. See section 2.1.1.1 for discussion of how the data which led to such analyses are handled in this analysis.

<sup>4</sup>Tones are marked as follows: low ` , high ´ , falling-to-low ^ , falling-to-mid ~ (or ~ phonetically), and rising ˇ .

<sup>5</sup>The capital letters which occur utterance final represent unreleased stops and nasals.

<sup>6</sup>The palatalized voiced velars correspond to the Proto-Ekoid \*y (Watters unpublished). Other sub-dialects of WE and EE as a whole have the palatal glide y in these roots instead of a palatalized velar g<sup>y</sup>; so the velar in these roots represents an innovation on the part of this sub-dialect.

<sup>7</sup>Note that EE definitely has a well established contrast between the labial plosive p and the labial fricative β. Approximately 10% of the root initial labial plosives do not become fricatives in the intervocalic position. It should also be noted that one could also make r an allophone of d, with d becoming r in intervocalic position. In this case about six roots would have to be marked as exceptions.

However, in this case there is general agreement across the sub-dialects of WE as to which roots are exceptions to the d --> r rule. In addition, the correspondences with EE suggest two phonemes: those roots with d in WE being r in EE, and those roots with d --> r in WE generally being l in EE.

<sup>8</sup>In addition, as Crabb (1965:46) pointed out, the fricative (i.e. continuant) x does vary with the plosive g intervocalically, with special preference given to g in the environment 'i\_i', e.g. -kpiǵi 'to turn' and -riǵi 'to burn'.

<sup>9</sup>Technically, three "rules" are not necessary. One "rule" could be formulated for both sets of plosives. However, if one rule is used three environments have to be specified for the voiceless plosives and only two environments have to be specified for the voiced plosives. Consider the following rules:

(20) Underlying p, t and k

$$[-\text{syllabic}] \rightarrow \left[ \begin{array}{l} [-\text{released}] \\ [+voice] \\ \langle +\text{continuant} \rangle \end{array} \right] / \left[ \begin{array}{l} \_ | \\ \#CV - \left[ \begin{array}{l} +\text{voice} \\ \langle +\text{syllabic} \rangle \\ -\text{nasal} \end{array} \right] \end{array} \right]$$

In rule ( ) a voiceless plosive becomes unreleased in pre-pausal position, becomes voiced in the consonant two position of a root when followed by a voiced unit, and in addition becomes a continuant if the following voiced unit is syllabic and not nasal. Note that this involves the specification of three environments. Now compare the following rule:

(21) Underlying b, d and g:

$$[-\text{syllabic}] \rightarrow \left[ \begin{array}{l} [-\text{voice}] \\ [-\text{released}] \\ [+continuant] \end{array} \right] / \left[ \begin{array}{l} - \\ \#CV\_ \\ [+syllabic] \\ [-nasal] \end{array} \right]$$

In rule ( ) a voiced plosive becomes a voiceless, unreleased plosive in pre-pausal position, or a continuant in the second consonant position of a root when followed by a non-nasal syllabic unit. Note that this rule involves the specification of two environments.

<sup>10</sup>Note that the labialized velar g<sup>w</sup> corresponds to Proto-Ekoid \*w (Watters unpublished). Thus, the velarization of this labial-velar glide is an innovation on the part of this sub-dialect. Most other sub-dialects of WE have w rather than g<sup>w</sup> in these lexical items. Note that this innovation is parallel to the innovation discussed in note 6: y --> g<sup>v</sup> in this sub-dialect for numerous lexical items.

<sup>11</sup>EE has the following vowels:

(22) Table of Vowels

	front	central	back
high	i	ɨ	u
tense			o
mid			ɔ
open	ɛ		
low		a	

All of the non-back vowels are unrounded. The ɨ does not correspond to the WE u. The ɛ has a [ɛ̃] allophone which occurs in roots with either an initial labial consonant, a final labial consonant, or both.

Even though research remains to be done on the SE vowel system, the following table of vowels is tentatively suggested:

(23) Table of Vowels

	front	central	back
high	i		u
mid	tense e		o
	open ε		ɔ
low		a	

The correspondences of these vowels to those in WE and EE are not well known, nor have the allophonic variations been well studied.

<sup>12</sup>Note that the ɤ's in WE derive historically from \*u. Thus, once i and ɤ belonged to the class of [+high] vowels. The present day u in WE derives historically, in many items, from Proto-Ekoid \*o, indicating that the feature [+high] was all that was needed to classify i and ɤ together. Now that the ɤ has been fronted, they form a more complex class.

<sup>13</sup>In comparing WE to EE, the high, front, unrounded vowel i in WE not only corresponds to i in EE in a number of lexical items, but also to other vowel qualities under the following conditions: 1) a root which is an open syllable and in which the first consonant is labial or labial-velar has the i in WE corresponding to ɛ in EE (WE ɔ-kpi/EE ɔ-kpi' 'canoe'), 2) a root which is a closed syllable and in which both the first and second consonant are labials or labial-velars has the i in WE corresponding to ɛ in EE (WE -bib/EE -ɛib 'to

spoil'), 3) a root which is a closed syllable and in which the final consonant is a velar has the i in WE corresponding to ɛ in EE (WE Ñ-jín/EE Ñ-jén 'house fly'). Note that this last correspondence means that EE has continued the lowering process of the pre-velar i: in WE it is phonetically an open, high, front, unrounded vowel [i], and in EE it has been further lowered into the range of the next lower front vowel ɛ.

<sup>14</sup>The mid, front, unrounded vowel ɛ in WE generally corresponds to ɛ in EE. However, phonetically this vowel remains [ɛ] even when it occurs as the prefix vowel on a root with high first vowel, and only in an open, monosyllabic roots is this realized as a tense, mid, front, unrounded [e]: é-fí [éfi] 'boil on body', and -bé [bé] 'to escape'.

In addition, there is a set of nine lexical items for which the first root vowel ɛ in WE corresponds to i in EE. It is difficult to capture any general feature which accounts for this correspondence. Further study remains to be done on these.

<sup>15</sup>All occurrences of the high, front, rounded vowel ɯ in WE correspond to the high, back, rounded vowel u in EE when they are in open, monosyllabic roots. When they are in closed, monosyllabic roots the ɯ of WE corresponds to ɛ or wɛ in EE. In the latter case, the first consonant of the root is a velar (but note that in two lexical items the velar actually derives historically from \*y): WE -dúd/EE -léd 'to be blunt'; WE -kúrí/EE -kwélé 'to return home';

WE -gúú (Eyumojok-Ndebaya), -yúú (elsewhere in WE)/EE -wéú  
 'to ascend'; WE -gyúú (Eyumojok-Ndebaya), -yyúú (elsewhere  
 in WE)/EE -wéúú 'to be satisfied, pleased'. Note that in  
 these last two examples the initial consonant in WE  
 corresponds to zero ∅.

<sup>16</sup>The mid, back, unrounded vowel ə, which occurs only in  
 closed syllables in WE, corresponds to ə in EE in most items,  
 with the following exceptions: it corresponds to we if the  
 vowel corresponds to Proto-Ekoid u and the first consonant  
 of the syllable is a velar, and it corresponds to o in EE  
 if the vowel corresponds to Proto-Ekoid u and the first  
 consonant of the syllable is a labial or labial-velar and  
 the second consonant is a velar (WE -káú/EE -kwéú 'to carry',  
 WE -kéú/EE -kwéú 'to beat skin drum'; WE -méú/EE -mòú 'to  
 raze', WE -fóúú/EE -fóúú 'to urinate').

<sup>17</sup>The low, back unrounded vowel a in WE generally  
 corresponds to the same vowel quality in EE, except in roots  
 with the shape -Cáú, where 'C' represents any consonant.  
 In such roots, the WE a corresponds to zero ∅ in EE.

<sup>18</sup>The high, back, rounded vowel u in WE generally  
 corresponds to u in EE. However, in a closed syllable, if  
 the final consonant is a velar, then the WE u corresponds  
 to EE o: WE ñ-fúú/EE ñ-fóú 'African buffalo', WE è-fúú/EE  
è-fóú 'cooking hearth or place'. Note that even though the  
 actual phonetic quality of the vowel in the two dialects is  
 identical, and even though there is neutralization between

u and o in this environment in EE, it is represented as o because of a speaker reaction which identifies it consistently with the o of EE Ṃ-kó 'anail' rather than the u of EE Ṃ-kú 'cane rat'.

<sup>19</sup>The mid, back, rounded vowel o in WE generally corresponds to o in EE with the following exceptions: in open, monosyllabic roots which have an initial [+grave] consonant (i.e. labial, labial-velar, or velar) the o in WE corresponds to o in EE; and the -Cɔɛ roots of WE correspond to -C<sup>w</sup>ɛ in EE (WE -kpó/EE -kpó 'to die', WE -bɔ/EE -bɔ 'to lend money', WE -kó/EE -kó 'to take'; WE ɛ-čɔɛ/EE ɛ-č<sup>w</sup>ɛ 'burden, cargo').

<sup>20</sup>In terms of final consonants of the root and suffixless word, the same restrictions apply in EE. In both WE and EE roots with final consonants all have the shape -CVC. In comparing the distribution of consonants in such roots to the distribution of consonants in the second consonant position of -CVCV roots, one finds that WE has the same restrictions in both cases. However, EE does not. In the second consonant position of -CVCV one also finds the consonant l along with the other six. In addition, EE has roots with the shape -CVCCV in which the following consonant sequences are permitted: bl, ml, gl, nl.

<sup>21</sup>EE is identical to WE in that all consonants may occur in the root initial consonant position in EE.

<sup>22</sup>As long as one treats the labialization, palatalization



and lateralization of consonants in EE as a sequence of two vowels rather than as modifications of consonants, then the following consonant clusters are found in EE: Cw, ky, gy, bl, ml, gl, and nl, where 'C' represents any non-labial consonant. Thus, the second consonant in a cluster is limited to the glides w and y, and the lateral l. The velar glide follows only non-labial consonants, the palatal glide only velar consonants, and the lateral only [ɹgrave] consonants. The clusters Cw, ky, gy, bl and ml only occur in the initial consonant positions of the -CCV(C)(V) roots. The clusters with a second lateral only occur in the second and third consonant positions of -CVCCV roots: namely, bl, ml, gl, and nl.

<sup>23</sup>In EE the final vowel in a -CV root may be any one of the seven EE vowels (see note 11). In a -CVCV root the final vowel is ɛ, but this vowel is altered on the surface if the preceding consonant is a velar. In this case the final vowel is a copy of the first root vowel. In verb forms with a vowel suffix the final vowel may be a copy of the first root vowel, the vowel ɛ, or the vowel a, depending on the type of suffix and the shape of the verb root.

<sup>24</sup>In EE there are also only word initial vowels. They are restricted to ɛ, a and ɔ.

<sup>25</sup>The criteria used for establishing syllabification in WE have been the following: 1) structural, 2) speaker intuitions, and 3) historical. The structural criterion

involved the lexical structure of morphemes.<sup>26</sup> The more common syllable types were considered more canonical, and the less common were considered less canonical. In addition, the deletion processes in the language were considered. These processes pointed to two facts: 1) vowels are generally not deleted when the result would be a consonant cluster, but 2) vowels are commonly deleted when a CVVCV structure can be simplified to a CVCV structure.

Speaker intuitions were used particularly in understanding resyllabification. Although the testing process was more impressionistic-oriented than control-oriented, speakers were consistent in their preference for CV syllables except when such a syllable was followed by a syllabic nasal. Even for a single speaker there can be ambivalence as to whether one wants to maintain the CV.N syllable structure or change it into a new CVC (i.e. CVN?) structure. That is why rule (6b) is indicated as being optional.

Finally, historical evidence was considered. In this case, Proto-Ekoid roots were compared with those in WE and Ejagham as a whole.<sup>27</sup> There has been a clear preference for Ejagham to simplify the Proto-Ekoid -CVC roots into -CV ones.

<sup>26</sup>The terms 'syllabification' and 'resyllabification' could be thought of in terms of the phonological cycle, in which case syllabification takes place within the word boundaries and resyllabification takes place within the phrasal and sentential boundaries.

<sup>27</sup>Note that for -CVC and -CVCV roots this can be generalized to labials rather than just bilabials. The only occurrence of ɛ following f is in a -CV root: -fɛ 'to harvest'; and in a -CVV root: -fɛí 'to bubble, simmer' (which elsewhere in WE is -fí). On the basis of this it is interesting to note that a number of the occurrences of ɛ in WE today derive from Proto-Ekoid \*u (cf. Watters unpublished). However, ɛ in WE today also derived from Proto-Ekoid \*u (cf. Watters unpublished). Thus, the co-occurrence restriction on ɛ and labials provides one significant environment in which Proto-Ekoid \*u did not become ɛ in WE but ə: WE -fɛ̀bɛ̀/Proto-Ekoid -fubi 'to fly' and WE -bɛ̀n/Proto-Ekoid -bun 'to break by snapping'.

<sup>28</sup>There is one exception: ɛ occurs in kɛ́ 'CONTINUOUS' which is an allomorph of the verbal prefix kí. The allomorph kɛ́ occurs only with the verb root -bá 'to come': à-kɛ́-bá 'she is coming'.

<sup>29</sup>EE does have length. It is found in those roots which correspond to -CVNV in WE, where the N represents either n or m which has been lost in EE: WE è-búní/EE è-bóó 'mud bed'.

<sup>30</sup>In the case of 560 verb roots, 104 of the roots belong to such sets, or approximately 19% of the verb roots. In the case of 630 nouns, 144 nouns belong to such sets, or approximately 23% of the nouns. If the verb roots and nouns are counted together, approximately 20.8% belong to such sets.

<sup>31</sup>The lps form of the complementizer is bàd.

<sup>32</sup>EE does not have the phonetic contour  $\sim \uparrow$ . Instead, for those nouns which in WE are H-H'H the tone sequence is H'H(H) in EE.

<sup>33</sup>Since there is no phonetic contour  $\sim$  in EE, the nouns which have tone sequence (15j) in WE have tone sequence (15i) in EE.

<sup>34</sup>Note that this tone sequence is found in the Agbokəm (of Cameroon) sub-dialect in the eastern portion of WE. It occurs in the constituent-focus imperfective form when the focused constituent occurs post-verbally: à-sù 'she is washing x' and à-gùlè 'she is selling x'

CHAPTER 3

MORPHOPHONOLOGY

### 3.0 Morphophonology

#### 3.1 Segmental

The primary segmental morphophonological processes involve assimilatory and deletion processes. There are two secondary processes involving syntagmatic coalescence and reduplication. The language does not include any dissimilatory or metathesis processes, nor does it have any cases of syntagmatic split between phonemes. Most of the processes included here occur throughout WE, sometimes with some local variation in the rule or rules, but some of the processes included here are only found in the sub-dialect being presented.

##### 3.1.1 Assimilatory processes

###### 3.1.1.1 The second vowel of -CV(C)V roots, the Constituent Focus Perfective suffix, and a variant of the Associative Marker

The major assimilatory process in WE, Ejagham as a whole, and perhaps in all of the Ekoid languages involves the determination of the final vowel in a bisyllabic root. The actual assimilatory rule varies from Ekoid language to Ekoid language, and from Ejagham dialect to Ejagham dialect, but the rule presented here is fairly widespread throughout the WE dialect. It has already been touched on in 2.2.2.1, but is here discussed in more detail.

If this assimilation process only involved -CV(C)V roots, then one could simply specify the appropriate surface vowel in the lexicon and then express the distributional

generalization in a morpheme-structure condition. However, since this process involves more than roots, it is treated here as a rule-governed process rather than as a lexically specified one.

The facts are the following. First, in bisyllabic roots (e.g. -CVV and -CVCV) the second vowel is i on the surface if the first root vowel is [+high], but it is ɛ if the first root vowel is [-high]: -fídí 'to argue', -kúdí 'to return home', -gúdí 'to sell', -sédé 'to bend, duck under', -fèbé 'to fly', -kòné 'to set a trap' and -kàré 'to give'. Secondly, the suffix of the Constituent Focus Perfective is i if the first verb root vowel is [+high] and ɛ if it is [-high]. This is true whether the verb root is -CV, -CVC, -CVV or -CVCV. If the verb root is a bisyllabic -CV(C)V, then the second vowel is deleted in the presence of the Constituent Focus Perfective suffix. Consider the following examples:

(1) a. -CV verb roots

-fí	-->	à-fí-í'	'she grasped'
-kí	-->	à-kí-í'	'she put (it there)'
-bá	-->	à-bá-é'	'she butchered (it)'
-bá	-->	à-bá-é'	'she came'

b. -CVC verb roots

-bùm	-->	à-bùm-í'	'she threw (it) out'
-búb	-->	à-búb-í'	'she picked (it) up'
-kág	-->	à-kág-é'	'she put (it) inside'
-fág	-->	à-fág-é'	'she swept'

c. -CVV verb roots

-búi	-->	à-bù-í'	'she covered (it)'
------	-----	---------	--------------------

-fúí	-->	à-fú-'í	'it bubbled'
-mòé	-->	à-mò-é'	'she cheated'
-kóé	-->	à-kó-'é	'she coughed'

Thirdly, one variant of the associative marker used in the Eyumojok-Ndebaya sub-dialect of WE involves this assimilation process. The associative marker is i if the first noun root vowel of the preceding noun is [+high], and ɛ if it is [-high]. This process occurs whether the noun root is -CV, -CVC, -CVV or -CVCV in shape. If the noun root is a bisyllabic -CV(C)V, then the second vowel is deleted before the associative marker. Consider the following examples:

(2) a. -CV noun roots

è-kú í Ñ-tèm 'a friend's oil'  
6-oil AM 1-friend

Ñ-kó ɛ Ñ-tèm 'a friend's snail'  
9-snail AM 1-friend

b. -CVC noun roots

Ñ-búg i Ñ-tèm 'a friend's monkey'  
9-monkey AM 1-friend

Ñ-ñàm ɛ Ñ-tèm 'a friend's animal'  
9-animal AM 1-friend

c. -CVV noun roots

Ñ-kù(i) i Ñ-tèm 'a friend's maize'  
9-maize AM 1-friend

Ñ-tá(é) ɛ Ñ-tèm 'a friend's stone'  
9-stone AM 1-friend

d. -CVCV noun roots

Ñ-gùm(í) i Ñ-tèm 'a friend's wild hog'  
9-wild;hog AM 1-friend



è-gòm(é) é N-tèm 'a friend's plantain'  
 5-plantain AM 1-friend

The 'AM' refers to the associative marker. The relation of the second vowel in -CV(C)V noun and verb roots is discussed in section 3.1.3.1, and the tone of the AM is discussed in section 3.2.1.3.

If one assumes an archiphoneme analysis, then this segment would be specified underlyingly as [+syllabic]. This archiphoneme would be further specified according to the following rule:

(3)

$$[+syllabic] \rightarrow \begin{matrix} [-back] \\ [\alpha high] \end{matrix} / \# C \quad V \quad (C) \left\{ \begin{matrix} \overline{\quad} \\ (V) \left\{ \begin{matrix} \# \quad \_ \\ \#\# \quad \_ \end{matrix} \right\} \end{matrix} \right\} \#\#$$

Rule (3) would further specify the syllabic segment to be a front vowel whose height is conditioned by the height of the first root vowel. The first environment #CV(C)\_\_\_## covers all roots, the second environment #CV(C)(V)#\_\_\_## covers the Focus Constituent Perfective suffix, and the third environment #CV(C)(V)##\_\_\_## covers the one variant of the associative marker.

However, if one assumes a fully-specified-phoneme analysis, then there is the question as to which vowel is the underlying one. If one uses the criterion of frequency, then the underlying value would be ɛ, both in terms of lexical counts and texts counts<sup>2</sup>. If one looked at other variants of this rule within WE, the indication would again be that ɛ was<sup>3</sup> and is

the underlying form. This conclusion is due to the fact that the i occurs in the most restricted environment in other sub-dialects like Bendeghe or Agbokem Waterfalls in Nigeria<sup>4</sup>. In these villages (see Tom and Eileen Edmondson 1977 for Bendeghe) the second vowel is i only following i and u and not u<sup>5</sup>. Thus, the features which condition the occurrence of i are [+high] and [-back], rather than the single feature [+high], while the features which condition the occurrence of ɛ are [-high] and [+back]. The difference between these features is that the set conditioning i are conjunctive features which define a small set of vowels, while the set conditioning ɛ are disjunctive features which define two separate, general classes of vowels<sup>6</sup>. It is assumed here that underlying forms should be the more general form, and so ɛ would be taken as the underlying vowel in this analysis.

Regardless of which analysis is assumed here, for expository reasons both surface vowels will be specified in examples throughout the remainder of this grammar. Thus, [gùrí] 'to sell' will be written as -gùdí rather than -gùdí where ɪ would be an archiphoneme, or -gùdé where ɛ would be the underlying vowel in a fully-specified-phoneme account.

### 3.1.1.2 The root initial flap r<sup>7</sup>

All noun and verb roots with an initial flap r undergo the following rule:

(4)  $r \rightarrow d / N\text{-}\underline{\quad}$

The rule states that the flap r becomes the voiced plosive d when it follows a nasal prefix<sup>8</sup>. Examples of this process

include:

- (5) a. à-rě 'she is'                      Ñ-dě 'I am'  
      b. í-rùnándù 'star'                    Ñ-dùnándù 'stars'

### 3.1.1.3 The prefixes ɛ- and ɔ-

As already stated in section 2.1.2 in the allophonic statement for ɛ and ɔ, when these vowels occur as prefixes they vary in terms of tenseness according to the height of the first root vowel. Even though this variation has already been discussed above, and even though it is only an allophonic variation and not one between phonemes, it is included here because it is widespread throughout WE and it parallels the assimilation process discussed in 3.1.1.1 in terms of the conditioning factors. The rule is as follows:

- (6)  $\left[ \begin{array}{l} +\text{syllabic} \\ -\text{high} \\ -\text{low} \\ -\text{tense} \end{array} \right] \rightarrow [+tense] / \text{--- C V (C) (V)} \left[ \begin{array}{l} \\ \\ \\ [+high] \end{array} \right]$

Rule (6) states that ɛ and ɔ become tense [e] and [o] when they occur as prefixes of a verb or noun root which has an initial [+high] root vowel. Examples are given in (7):

- (7) a. è-fân    èfân    'we counted'  
      b. è-fin    èfin    'we closed'  
      c. ò-fân    òfân    'you counted'  
      d. ò-fin    òfin    'you closed'

### 3.1.1.4 The infinitive suffix and the lps object pronoun

The infinitive suffix and the lps object pronoun are segmentally identical. One is clearly a suffix, however, while the other can be considered either a clitic or a separate word. Both occur after a verb root and both undergo

the same assimilation processes.

Again the question of the underlying form arises: either it is underspecified as simply a [+syllabic] segment, thus making the underlying forms  $-\underline{V}_m$  'INFINITIVE' and  $\underline{V}_m$  '1ps OBJECT PRONOUN'; or it could be fully specified either as  $\underline{a}$  for historical reasons or as  $\underline{a}$  for synchronic reasons of general distribution and fewer features necessary to specify the phoneme shifts. Consider the following examples for -CV(V) roots and -CVC(V) roots.

(8) -CV(V)<sup>8</sup> roots

	<u>Infinitive</u>		<u>1ps object pronoun</u>
a.	è-fi-ím 'to grasp'	à-fi	ím 'he grasped me'
b.	è-gè-ém 'to entertain'	à-gè	ém 'she entertained me'
c.	è-wà-ám 'to shatter'	à-wà	ám 'he shattered for me'
d.	è-kó-óm 'to take'	à-kó	óm 'he married me'
e.	è-sù-úm 'to wash'	à-sù	úm 'she washed me'
f.	è-tà-úm 'to pull'	à-tà	úm 'she pulled me'

(9) -CVC(V) roots

	<u>Infinitives</u>		<u>1ps object pronoun</u>
a.	è-čín-óm 'to pass'	à-čín	óm 'he passed me'
b.	è-sén-óm 'to write'	à-sén	óm 'she wrote me'
c.	è-béb-óm 'to ask'	à-béb	óm 'he asked me'
d.	è-bàn-óm~ è-bàn-ám 'to hate'	à-bàn	óm~ ám 'she hated me'
e.	è-kón-óm~ è-kón-óm 'to sing'	à-kón	óm~ óm 'she sang to me'
f.	è-yúg-úm 'to hear'	à-yúg	úm 'he heard me'
g.	è-súg-úm 'to awake someone'	à-súg	úm 'she awakened me'

Historically, the 1ps object pronoun derives from the Proto-Ejagham kám which is still attested in SE. It is also most likely that the infinitive suffix was historically -ám in Proto-Ejagham, a form which is also still attested in SE.

Synchronically, however, in WE and in the Eyumojok-Ndsbaya sub-dialect in particular, it appears that ə has replaced a as the underlying vowel. In the first place, with -CVC(V) roots in (9) -ám and ám are the most widely distributed forms of all the theoretical possibilities. It occurs with every root vowel except for the high, rounded root vowels u and u. In the second place, if the vowel is ə, then fewer rules are needed for the phonemic alternations than if it were a. With ə only two rules are necessary for -CVC(V) roots: one which obligatorily applies to roots with high, rounded vowels, changing the a to the alpha features of u and u; and a second which optionally applies when a or o is the root vowel, changing the a to the alpha features of those vowels. With an underlying a, an alpha feature rule would be necessary for u, u and ə, an optional rule changing a to ə when the root vowels are a and o, and a third obligatory rule changing a to ə when the root vowels are i, e and ə. In addition to the number of rules, the feature specifications involved would be much more complex than those required by an underlying ə. For these reasons, the infinitive suffix is analyzed as -ám and the 1ps object pronoun as ám.

The assimilatory rules involving ə and the various types of roots is given in (10). Rule (10a) states that the ə

changes to the alpha features of the root vowel in the case of all -CV verb roots. Rule (10b) states that the a changes to a copy of the root vowel in the case of roots with the shape -CuC(V) and -CwC(V). Rule (10c) states that the a changes to a copy of the root vowel in the case of roots with the shape -CsC(V) and -CoC(V). Rules (10a) and (10b) are obligatory while rule (10c) is optional.

- (10) a.  $a \rightarrow V_\alpha / C V_\alpha ]_{\text{verb}} \text{ ---}$
- b.  $a \rightarrow \begin{bmatrix} +\text{high} \\ \alpha\text{back} \\ +\text{round} \end{bmatrix} / C \begin{bmatrix} V \\ +\text{high} \\ \alpha\text{back} \\ +\text{round} \end{bmatrix} C (V) ]_{\text{verb}} \text{ ---}$
- c.  $a \rightarrow \begin{bmatrix} -\text{high} \\ \alpha\text{low} \\ +\text{back} \\ +\text{round} \end{bmatrix} / C \begin{bmatrix} V \\ -\text{high} \\ \alpha\text{low} \\ +\text{back} \\ +\text{round} \end{bmatrix} C (V) ]_{\text{verb}} \text{ ---}$

### 3.1.1.5 Vowel assimilation subsequent to root initial consonant loss

There is a consonant deletion process discussed in 3.1.3.2 and another in 3.1.3.3 which lead to a situation where two vowels are adjacent to one another which were previously separated by a consonant. The first case involves noun and verb roots, and both the deletion process and subsequent assimilatory process are optional. This is a synchronic, rule-governed process. The second case involves possessive pronouns, and in this case both the deletion process and subsequent assimilatory process are obligatory. In fact, this second case is considered an historical process and the derived forms are simply listed in the lexicon (at least for

this sub-dialect of WE---see section 5.4 and the appropriate footnotes for the forms used in the Eyumojok-Ndebaya sub-dialect and other sub-dialects of WE).

The assimilation process involves the second vowel (i.e. the first root vowel) totally assimilating to the first vowel (i.e. the prefix vowel). However, the only vowels which undergo this assimilation are the non-high, unrounded ones: e, ə and a. The high vowels and the rounded vowels are invariable. Examples of this assimilation process for noun and verb roots are given in (11).

- (11) a. à-yɛn ~ à-ɛn ~ à-ân 'he saw'  
 b. ɔ-yɛn ~ ɔ-ɛn ~ ɔ-ɔn 'you saw'  
 c. è-yɛd ~ è-ɛd ~ è-ɛd 'eye'  
 d. à-yɛb ~ à-ɛb ~ à-áb 'water'

In (11) the fully assimilated form is generally preferred. In the case of (11d), for many speakers of the Eyumojok-Ndebaya sub-dialect, the fully assimilated form has been lexicalized, with no other variant possible.

Examples of where the root initial consonant has been deleted but where vowel assimilation does not occur are given in (12).

- (12) a. à-yim ~ à-im \*à-âm 'he did (it)'  
 è-yim ~ è-im \*è-ɛm 'we did (it)'  
 ɔ-yim ~ ɔ-im \*ɔ-ɔm 'you did (it)'  
 b. à-wúdi ~ à-údi \*à-ádi 'he put (on floor)'  
 è-wúdi ~ è-údi \*è-ɛdi 'we put (on floor)'  
 ɔ-wúdi ~ ɔ-údi \*ɔ-ɔdi 'you put (on floor)'  
 c. à-wúbi ~ à-úbi \*à-ábi 'he caught'  
 è-wúbi ~ è-úbi \*è-ɛbi 'we caught'

	ɔ-wúbi ~ ɔ-úbi	*ɔ-óbi	'you caught'
d.	à-wɔm ~ à-ɔm	*à-am	'he wanted'
	ɛ-wɔm ~ ɛ-ɔm	*ɛ-em	'we wanted'
	ɔ-wɔm ~ ɔ-ɔm		'you wanted'

In each case, the first root vowel is either a high vowel, a rounded one, or both.

The rule involving this assimilation process is formalized in (13).

$$(13) \quad \begin{array}{c} V \\ [-\text{high}] \\ [-\text{round}] \end{array} \rightarrow V_{\alpha} / \#\#V_{\alpha}\# \_$$

A non-high, unrounded vowel totally assimilates to a preceding prefix vowel if there is no intervening consonant. The morpheme (prefix) boundary has to be specified since this is not a general process occurring, for example, across word boundaries.

### 3.1.2 Syntagmatic coalescence of a with ɛ

The phoneme a becomes ɛ in roots of the shape -Ca and -Caɛ whenever it precedes a word with an initial vowel i. This process could be included under assimilatory processes above, but it also has the result of reducing the phonemic contrasts in this position by coalescing a with ɛ.

In the case of -Caɛ roots, the first process involves the deletion of the ɛ vowel (see section 3.1.3.1). The result is that the -Caɛ roots become identical to the -Ca roots. The process which then takes place is summarized in (14)<sup>10</sup>.

$$(14) \quad a \rightarrow \epsilon / \_ \#\#i$$





rule ordering to apply in its case.

### 3.1.3 Deletion processes

#### 3.1.3.1 The second vowel in -CV(C)V roots and the a in -Ca roots

A common process in the Eyumojok-Ndebaya sub-dialect and other sub-dialects of WE is the deletion of the second vowel in -CVV and -CVCV roots, whether nominal or verbal. The deletion process occurs under various conditions: when suffixes are added; when various object clitics (pronouns) follow a verb root, or the associative marker follows a noun root; and when nominal objects or other adjuncts with an initial vowel follow a verb, or pronouns with an initial vowel follow a noun. Consider the following examples:

#### (17)<sup>11</sup> -CVV verb roots

a.	à-kóé-á		-->	à-kó-á	
	3ps:HAB-cough-IMPFV			'he coughs'	
b.	è-kóé-óm		-->	è-kó-óm	
	5-cough-INF			'to cough'	
c.	à-čsè	éd	-->	à-čs 'éd	
	3ps:PFV-push 1pp			'she pushed us'	
d.	à-čsè	ábǔ	-->	à-čs 'ábǔ	
	3ps:PFV-push 3pp			'she pushed them'	
e.	à-kóè	ò-kóé	-->	à-kó ò-kóé	
	3ps:PFV-cough 14-cough			'he coughed (repeatedly)'	
f.	à-čsè	à-tèm	-->	à-čs à-tèm	
	3ps:PFV-push 2-friend			'he pushed friends'	

(18) -CVCV verb roots

a.	à-kàdɛ́-á		-->	à-kàd-á	
	3ps:HAB-give-IMPFV			'she gives'	
b.	è-kàdɛ́-ém		-->	è-kàd-ém	
	5-give-INF			'to give'	
c.	à-rínì	ém	-->	à-rín 'ém	
	3ps:PFT-know 1ps			'he knows me'	
d.	à-rínì	én	-->	à-rín 'én	
	3ps:PFT-know 2pp			'she knows you all'	
e.	à-kádê	ò-flàm	-->	à-kád ò-flàm	
	3ps:PFV-give			'he gave (types of) meat'	
f.	à-rínì	à-tèm	-->	à-rín à-tèm	
	3ps:PFT-know 2-friend			'she knows (her) friends'	

(19) -CVV and -CVCV noun roots

a.	è-káé í <sup>12</sup> N-tèm		-->	è-ká í N-tèm	
	5-crab AM 1-friend			'the friend's crab'	
b.	è-gòmé í N-tèm		-->	è-gòm í N-tèm	
	5-plantain AM 1-friend			'the friend's plantain'	
c.	è-káé á-jì		-->	è-ká á-jì	
	5-crab that-5			'that crab'	
d.	è-gòmé é-jì		-->	è-gòm á-jì	
	5-plantain that-5			'that plantain'	
e.	bì-káé í-nòb		-->	bì-ká í-nòb	
	8-crabs 8:PFT-good			'the crabs are good'	
f.	bì-gòmé í-nòb		-->	bì-gòm í-nòb	
	8-plantain 8:PFT-good			'the plants are good'	

However, this process involves not only the final vowel of -CVV and -CVCV roots, but also any vocalic verbal suffix



à-kàdø-ø ó-ñàm = à-kàd ó-ñàm  
 'he gives meata'

(23) bì-gòmé í à-tèm --> bì-gòmø í á-tèm -->  
 8-plantain AM 2-friend

bì-gòmø ø á-tèm = bì-gòm á-tèm  
 'the friends' plantains'

In (22), rule (21) has first applied to delete the final root vowel é, and then it has reapplied to delete the suffix -á 'IMPFV', giving the resulting form à-kàr ó-ñàm 'he gives (types of) meate'. In (23), rule (21) has first applied to delete the final root vowel é, and then it has reapplied to delete the associative marker í, giving the resulting form bì-gòm á-tèm 'the friends' plantains'.

One exception to the application of rule (21) occurs with roots which have a falling tone on the second vowel. Such vowels are not deleted. This exception would have to be specified as a condition on the first environment given in rule (21): namely, that for bisyllabic roots. Consider the following examples of this exception:

(24) a. ó-kùná ó-bà --> ó-kùná ' ó-bà  
 14-chameleon 14:PFT-come 'the chameleon has come'  
 \*ó-kùn ó-bà

b. é-ñàgé á-ji --> é-ñàgé ' á-ji  
 5-abony that-5 'that abony'  
 \*é-ñàg á-ji

In contrast to bisyllabic roots, vowels of monosyllabic roots generally are not deleted. However, in the case of

-Ca roots, the a vowel is deleted before the non-high vowels e, a and o. The vowel e which is also a non-high vowel never occurs as a word initial vowel (i.e. as a prefix), but it can be included with this class of vowels in the rule since it does not lead to overgeneralization of the rule. The rule can be formalized as follows:

(25) a --> Ø / #C\_\_## V  
[-high]

(See section 3.1.2 for -Ca roots before i.)

This process is exemplified by the following:

- (26) a. è-kpà      èj-â      --> è-kp èj-â  
5-mat      5-your      'your mat'
- b. à-yà      á-mà      --> à-y á-mà  
6-river      that-6      'that river'
- c. ò-tâ      òb-â      --> ò-t òb-â  
14-thigh      14-your      'your thigh'

### 3.1.3.2 Initial glides

The root initial glides y and w may be optionally deleted before a certain set of root vowels as indicated by the examples in (27) and (28).

#### (27) y root initial

- a. à-yim ~ à-im      'he did (it)'
- b. à-yèn ~ à-èn      'he saw'
- c. è-yád ~ è-ád      'eye'
- d. à-yâm \*à-âm      'she cooked'
- e. à-yóg \*à-óg      'she swam'
- f. à-yòm \*à-óm      'he bit'
- g. à-yúni \*à-úni      'he smelled (it)'

(28) w root initials

- a. à-wígi à-ígi 'he nibbled'
- b. à-wé̃g à-é̃g 'she wasted'
- c. à-wɛ̃b à-ɛ̃b 'he whipped'
- d. à-wáǵè à-áǵè 'he was quick'
- e. à-wɔ̃m à-ɔ̃m 'she wanted'
- f. à-wúbi à-úbi 'she caught'
- g. à-wúri à-úri 'he put (on floor)'

As the examples in (27) demonstrate, the palatal glide y may be optionally deleted only before i, e and ə, in other words before all unrounded, non-low vowels; while the examples in (28) demonstrate that the velar glide w may be optionally deleted only before u, ɔ and ə, in other words before all rounded vowels and all back, non-low vowels. This deletion process could be formalized with two rules as in (29).

- (29) a.  $y \rightarrow \emptyset / \text{---} \begin{matrix} \text{V} \\ [-\text{round}] \\ [-\text{low}] \end{matrix}$  (optional)
- b.  $w \rightarrow \emptyset / \text{---} \begin{matrix} \text{V} \\ [+round] \\ [+back] \\ [-low] \end{matrix}$  (optional)

However, the nature of the features involved, namely the unrounded palatal glide y before unrounded vowels and the rounded velar glide w before rounded vowels suggests that one, unitary process is involved. One possible solution is the two rules in (30).

- (30) a.  $\begin{bmatrix} -\text{syllabic} \\ -\text{consonantal} \\ \text{round} \end{bmatrix} \rightarrow \emptyset / \text{---} \begin{bmatrix} +\text{syllabic} \\ -\text{low} \\ \text{round} \end{bmatrix}$
- b.  $w \rightarrow \emptyset / \text{---} \text{ə}$

Rule (30a) accounts for every case of glide deletion except for that in (28c). Rule (30b) is needed to account for this one exception. However, since (30b) only covers one case, it does not really have the status of a rule. Instead, the exceptional (28c) can be accounted for simply as lexical variation, so rule (30b) is not needed.

There are 54 roots in the data which begin with the palatal glide y, but only sixteen meet the environment of rule (30a). Of these sixteen, four always retain the glide and so must be marked as exceptions to rule (30a) in the lexicon. The exceptions are:

- (31) a. ò-yèg        'bow'  
           à-yèg        'bowe'
- b. ò-yìgì      'arrow'  
           à-yìgì      'arrows'
- c. ò-yǎm        'you pierced'  
           à-yǎm        'he pierced'
- d. ò-yǎb        'you pulled up forcibly'  
           à-yǎb        'she pulled up forcibly'

Of the 28 roots which begin with the velar glide w, again sixteen meet the environmental statement of (30a). Of these sixteen, three roots always retain the glide and so must be marked as exceptions to rule (30a) in the lexicon. The exceptions are:

- (32) a. à-wǎ        'he drank'  
       b. à-wǎg      'he patted'  
       c. à-wǎrè     'he dunked'

For some speakers, the velar glide w in the examples in (32)



are instead a labialized velar plosive g<sup>w</sup>. This variant may account for the stability of the velar glide in these three cases.

### 3.1.3.3 Consonant deletion in possessive pronouns

A related process to that discussed in 3.1.3.2 is the deletion of concurring consonants in possessive pronouns. This process (or processes) is a historical process and the resulting forms are today simple lexical items, variants of the full concord morpheme. The process is presented here because it is one which has held in the language in the past and accounts for the present day irregularities in possessive pronouns.

In the case of noun classes 1 and 9, the concurring consonants are w and y respectively. The conditions for the deletion of these consonants according to rules (30a) and (30b)---note that (30b) had a historic application---are met in the first and second person plural possessive forms.

- (33) a.  $\delta w' - \text{əd}é \rightarrow \delta - \delta d é$  'ours (class 1)'  
 b.  $\delta w' - \text{ən}é \rightarrow \delta - \delta n é$  'yours (class 1)'  
 c.  $\delta y' - \text{əd}é \rightarrow \delta - \delta d é$  'ours (class 9)'  
 d.  $\delta y' - \text{ən}é \rightarrow \delta - \delta n é$  'yours (class 9)'

(See section 3.1.1.5 for discussion of the vowel assimilation involved in these examples.) Note that this deletion process has not occurred in all WE sub-dialects. See 5.4 and the appropriate footnotes for a discussion of other WE forms.

Besides the glide deletion, there is also a process which deletes all voiced, labial consonants in the concurring

morpheme in the first person possessive pronouns. The rule is given in (34) and examples of the rule are given in (35).

(34)  $\left[ \begin{array}{l} +\text{labial} \\ +\text{voiced} \end{array} \right] \rightarrow \emptyset / \text{V\_ -amé}$

(35)<sup>13</sup>

a.	àb'-amé	-->	à-ámé	'mine (class 2)'
b.	ím'-amé	-->	ì-ímé	'mine (class 3)'
c.	ám'-amé	-->	à-ámé	'mine (class 6)'
d.	ìb'-amé	-->	ì-ímé	'mine (class 8)'
e.	òb'-amé	-->	ò-ómé	'mine (class 14)'

This is a historical process in WE and the derived forms on the right of the arrows are considered the lexical forms of the present day speech for the Eyumojok-Ndebaya sub-dialect. For other variants of these forms see 5.4 and the appropriate footnotes.

### 3.1.3.4 a deletion

The mid, back vowel a is deleted in normal speech when it occurs between a [+grave] consonant (i.e. labial or velar) and the alveolar d. The plosive d must itself be followed by a vowel. Thus, the sequence CədV becomes CdV. This deletion process derives the only consonant clusters found in WE. This process is summarized in (36) and exemplified in (37).

(36)  $a \rightarrow \emptyset / \left[ \begin{array}{l} +\text{grave} \\ +\text{sonorant} \\ +\text{continuant} \\ +\text{coronal} \end{array} \right] \text{ \_\_\_\_\_\_ } \left[ \begin{array}{l} +\text{syllabic} \end{array} \right]$

(37)

a.	bèd ân	-->	[brân]	'Issy/repeat...'
b.	ìgèdâ	-->	[igrâ]	'Igra (proper name)'
c.	èkàfèdâ	-->	[èkàfrâ]	'sympathy for another's labors'

- d. à-kéd            áfò      --> [àkr áfò]  
       3ps:PFV-stay there        'he stayed there'
- e. á-kpédè            èd      --> [ákpr èd]  
       3pp:PFV-punish lpp        'they punished us'

Note that rule (36) is a low level rule. In order for it to apply to the examples in (37), the allophonic rule which changes the alveolar plosive d to the flap [r] intervocalically must have already applied. This allophonic rule is sensitive to the intervocalic position which rule (36) could destroy if the plosive d was specified rather than the flap [r], and the rules were not ordered. By specifying the features for the flap [r] in rule (36) it can only follow the allophonic rule and does not need to be explicitly ordered in relation to it. Also note that after the ə is deleted the flap [r] remains a flap [r], as indicated by the examples in (37).

### 3.1.3.5 Reduction of nasal consonant sequences

When a root has an initial nasal consonant and it is prefixed with a homorganic nasal whose tone is identical to the first tone of the root, the nasal sequence is reduced to one nasal.

- (38) a. Ì-mòn    [ímòN] --> [mòN] 'child'  
       b. Ì-nè    [ínè]    --> [nè] 'person'  
       c. Ì-ñèn    [íñèn] --> [ñèn] 'mother'

Note that in each case the tone on the prefix is low and the tone over the root is either only low or it is a contour which begins with a low tone. If the initial tone is different from the tone on the prefix, the nasal sequence is



suffix). In the case of -CV roots the a is deleted, giving the form -CV-g. In the case of -CVC, -CVV and -CVCV roots it is the velar which is deleted<sup>14</sup>.

These facts raise two points. First, the -CV and the -CVV roots are not treated as identical. This fact means that the deletion of the velar g must occur before the deletion of the second vowel in -CVV roots, since the retention of the velar is obligatory for all -CV roots. In 3.1.3.1 it was pointed out that -Caε roots were coming to be treated as -Ca roots, but this identification has not yet been extended to -CV and -CVV roots in general in connection with the imperfective suffix.

Secondly, since the a is deleted from the suffix -ag 'IMPFV' when it co-occure with -CV roots, the conditions are established for the occurrence of certain vowel allophones (see 2.1.2). However, in these cases the allophonic form does not occur, at least not in careful speech. Instead, the original vowel of the root is retained. In other words, the root for 'rope' is [-dɪK] but the suffixed form of the verb 'to eat' is [-dɪ-K]; the root for 'to fan' is [-fɪK] while the suffixed form of the verb 'to grasp' is [-fɪ-K]; the root for 'to fetch' is [-tɔK] while the suffixed form of the root 'to abuse' is [-tu-K]; and the root for 'to respect' is [-jɪK] while the suffixed form of the root 'to give birth' is [-jɪ-K]. In rapid speech the allophonic rules can apply. Thus, the allophonic rules for i, u and a are sensitive to the presence or absence of the morpheme boundary, and to the

rate of speech.

### 3.1.4 Reduplication

In WE and in the Eyumojok-Ndebaya sub-dialect there is a minor process of reduplication. This contrasts with EE where reduplication, especially in nouns, is much more frequent. In WE, only a small number of nouns and a larger number of adverbials involve the process of reduplication.

In most cases, the entire phonological word or root is reduplicated. In some cases the tone of the initial root or word is maintained in the reduplicated form, in other cases there is tonal dissimilation.

#### (45) Reduplication of the root

##### a. Root tone maintained

è-fúm-fúm	'horsefly'
ò-kò-kò	'puff ball mushroom'
í-ǒí-d-ǒí-d	'sunbird'
à-sâ-sâ	'prostitution'
nò-nò ~ nòbà-nòbà	'well, fine'
ǒén-ǒén	'all'
kán-kán	'loud'
ǒi-ǒi	'useless, idle'

##### b. Root tone dissimilated

é-gàn-gàn	'types of bat'
é-kòm-kòm	'ram'
è-kùm-kùm	'type of fish'
fén-fèn	'swinging, dangling'

(46) Reduplication of the word (i.e. prefix plus root)

a. Complete reduplication, same tone

N-kpá N-kpá	'type of bean'
N-gù N-gù	'antelope (i.e. bushbuck)'
N-fá N-fá	'now (lit. 'here here')'
N-fé N-fé	'recently'

b. Complete reduplication, different tone

è-tí è-tí	'many (-tí 'to be plenty')'
è-tùdì é-tùdì	'suddenly (-tùdì 'to repair')'
è-kàn é-kàn	'similar, equivalent (è-kàn 'age group')

c. Partial reduplication

N-čídá N-čí	'charcoal'
N-ńàńà (N)-ńà	'lightning'

3.2 Suprasegmental (tone)

3.2.1 Tonal changes in nouns

The major tonal changes in terms of surface tones involve nouns. These changes are of two types. One varies according to the original lexical tone, while the other imposes a fixed tone pattern on all nouns regardless of their original lexical tone. The lexical tone in the case of nouns is that tone given in isolation or that tone used when the noun is in the subject position.

3.2.1.1 Nouns following certain high tones

The first type of tonal change in nouns occurs when they follow a word with a final high tone. This word can be a

verb, an associative marker, a preposition, a possessive pronoun, an adjective, a conjunction or a relative pronoun. Consider the following examples:

(47) a. Post-verbal

à-kó	è-gòmé	-->	à-kó é-gòmé
3ps:HORT-take	5-plantain		'she should take plantain'

b. Post-associative marker

è-kád í	Ñ-tèm	-->	è-kád í Ñ-tèm
5-foot AM	1-friend		'the foot of a friend'

c. Post-prepositional

kǎ	Ñ-jù	-->	kǎ Ñ-jù
in	9-house		'in the house'

d. Post-possessive pronoun

èy-ǎ	Ñ-ñàm	-->	èy-ǎ Ñ-ñàm
9-your	9-animal		'your <u>own</u> animal'

e. Post-adjective

čén-čén	à-nè	-->	čén-čén á-nè
all	2-people		'every person'

f. Post-conjunction

nǒŋ	Ñ-tèm	-->	nǒŋ Ñ-tèm
like	1-friend		'like a friend'

g. Post-relative pronoun

ò-gèm	Ñ-bí	Ñ-tèm	-->	ò-gèm Ñ-bí Ñ-tèm
14-market	REL-14	1-friend		'a friend's market'

Note that the high tone before the noun can be either a simple level tone or the final tone of a tonal contour (i.e. rising tone):



The tonal changes for -CV(C) and -CV(C)V roots are listed in (48) and (49) below:

(48) -CV(C) noun roots

	<u>Lexical tone</u>	<u>Derived tone</u>	
a.	è-bì	é-bì	'mongoose'
	è-bàm	é-bàm	'bag'
b.	è-jí	é-jí	'place'
	è-bín	é-bín	'farm'
c.	ṅ-jù	ṅ-jù	'house'
	è-jùm	é-jùm	'thing'
d.	ì-ká	í-ká	'pangolin'
	è-tég	é-tég	'village'

(49) -CV(C)V noun roots

	<u>Lexical tone</u>	<u>Derived tone</u>	
a.	ṅ-kùì	ṅ-kùì	'maize'
	è-jòṅè	é-jòṅè	'thorn'
b.	è-gùí	é-gùí	'mountain'
	è-gòmé	é-gòmé	'plantain'
c.	ò-bùì	ó-bùì	'goats'
	è-rébè	é-rébè	'tongue'
d.	à-káé	á-káé	'wives'
	à-jéné	á-jéné	'strangers'

First, in every case the derived tone involves the assimilation of the low tone prefix to the high tone which precedes it. Secondly, only nouns with a lexical low tone prefix undergo these changes. Nouns with high tone prefixes remain unaltered in all environments. In other words, a low tone prefix raising rule would apply vacuously to high tone prefixes. Thirdly, if contour tones are analyzed as

consisting of two level tones associated with a single syllabic unit, then the derived tones for (48a-b) and (49a-b) can be accounted for by the following rules:

(50) L-L(T)  $\rightarrow$  H-L(T) / H## \_\_\_\_

'T' represents any tone, whether low 'L' or high 'H'. The derived tones for (48c) and (49c) can be accounted for by rule (51). In this case the root tones change also.

(51) L-H L  $\rightarrow$  H-L(L) / H## \_\_\_\_

The derived tones for (48d) and (49d) can be accounted for by rule (52). In this case the root tones remain unchanged except for the fact that as high tones they are at the next lower level in relation to the derived high tone of the prefix.

(52) L-H(H)  $\rightarrow$  H<sup>1</sup>-H(H) / H## \_\_\_\_

Rules (50), (51) and (52) are given here for expository reasons. The processes they account for are handled more formally in terms of tone features, tone theory and the overall Ejagham tone system in section 3.3.4.

In general the derived forms occur following a word with a final high tone, but there is an exception. The final high tone of the constituent focus perfective does not cause the derived tonal forms to occur. Instead, the lexical tonal forms occur in this position, as can be seen by comparing (53c) with (53b):

(53) a: à-gúdl            bì-gòmé            'she sold plantains'  
           3ps:PFV-sell.8-plantain

- b. à-gùdí                      bí-gòmé                      'she should sell plantains'  
       3ps:HORT-sell 8-plantain.
- c. à-gùd-í'                      bí-gòmé                      'she sold plantains'  
       3ps:PFV-sell-C.FOC 8-plantain.

In (53a) the noun follows a low tone so the lexical tone occurs. In (53b) the noun follows a high tone so the derived tone occurs. In (53c) the noun also follows a high tone, but the lexical and not the derived tone occurs. Note that it is not the downstepping of the final high of the verb in (53c) which blocks the occurrence of the derived tone. In (54) a downstepped high in hortative mood does cause the derived tone to occur:

- (54) é-gúdí                      bí-gòmé                      'we should sell plantains'  
       1pp:HORT-sell 8-plantain

### 3.2.1.2 Nouns after bàgá 'which'

Nouns which follow the interrogative pronoun bàgá 'which' have a derived tone pattern which is identical for every noun regardless of its original lexical tone. The pattern is a high tone followed by a falling tone, or a high-high-low tone sequence. In (55) the parentheses indicate a deleted vowel.

- (55) a. bàg(á) é-bù                      'which time? when?'  
       b. bàg(á) é-jòm                      'which thing? what?'  
       c. bàg(á) é-né                      'which person? who?'  
       d. bàg(á) é-ji                      'which place? where?'  
       e. bàg(á) é-tí                      'which tree?'  
       f. bàg(á) é-tég                      'which village?'  
       g. bàgá bí-yù                      'which yams?'  
       h. bàgá bí-gòmé                      'which plantains?'



tone since it occurs with the largest number of noun classes. As the unmarked tone it will also be assumed to be the underlying tone of the AM. The following rule would derive the correct occurrences of low tone:

(58)  $H \rightarrow L / ]_{\text{noun}_{1,9}} \text{AM} \underline{\quad}$

The rule states that the high tone of the AM becomes a low tone when the AM is preceded by a noun of noun class 1 or 9.

#### 3.2.1.4 Tonal irregularities in nominal expressions: verb plus noun

Nominal expressions may be formed in various ways. One way involves the use of a verb root followed by a noun. In such an expression the verb root is prefixed with a noun class prefix and suffixed with a suffix similar to the imperfective suffix variant -a. However, the tone of this suffix varies according to the noun class prefix affixed to the verb root. Thus, if the prefix is of noun class 1 or 9, the tone is low; but if the prefix is of a noun class other than 1 and 9, the tone is high. This is identical to the associative marker in terms of tone (see 3.2.1.3 above). In fact, it is likely that this a derives from the older AM and so shares a common origin with the AM discussed in 3.2.1.3<sup>15</sup>. Consider the following examples of this suffix and its tone:

(59) a.  $\grave{N}$ -túb-à                       $\grave{N}$ -gún      -->  $\grave{N}$ -túb-à  $\grave{N}$ -gún  
           1-shoot-NOM.SFX 9-gun                      'hunter'

      b. à-túb-á                      à-gún      --> à-túb-(á) á-gún  
           2-shoot-NOM.SFX 6-gun                      'hunters'

- (60) a. Ñ-kpàn-à      è-bĩn      ---> N-kpàn-(à) è-bĩn  
           1-hoe-NOM.SFX 5-farm            'farmer'
- b. à-kpàn-á      Ñ-bĩn      ---> à-kpàn-á Ñ-bĩn  
           2-hoe-NOM.SFX, 9-farm            'farmers'

(The 'NOM.SFX' is the nominal suffix -a discussed above, and the vowels in parentheses means that they do not occur on the surface.)

However, there are certain irregularities in determining the tone of this suffix -a with a small set of verb roots. Instead of being high tone with prefixes on the verb from noun classes 5 and 14, the tone on the suffix is low. Consider the following examples:

- (61) a. è-fàn-à            Ñ-fín      ---> è-fàn-à Ñ-fín  
           5-count-NOM.SFX 9-day            'calendar'
- b. à-fàn-á            Ñ-fín      ---> à-fàn-á Ñ-fín  
           6-count-NOM.SFX 9-day            'calendars'
- c. ò-fàn-à            à-nè      ---> ò-fàn-(à) à-nè  
           14-count-NOM.SFX 2-person        'census'

In (61a) and (61c), where the prefixes are those of noun classes 5 and 14, respectively, the suffix is unexpectedly low. In (61b), however, where the prefix is that of noun class 6, the suffix has the expected high tone. Other roots which behave in this way include: -òǒd 'to talk', -fǎn 'to wipe', and -támè 'to embrace'

### 3.2.1.5 The simplification of tonal contours

#### 3.2.1.5.1 The falling-to-low contour

When a falling-to-low contour does not precede pause, it remains a falling-to-low contour in deliberate speech, but

in normal speech it results in the following: if the following tone is high, the falling-to-low simplifies to high tone and the following high is downstepped, as shown in (62):

(62) à-nám            é-tí            --> à-nám ' é-tí  
           3ps:PFV-buy 5-tree            'he bought a plank'

However, if the high tone following the contour is on a demonstrative, the downstep is optional, as shown in (63):

(63) è-jùm    á-ji            --> è-júm'á-ji ~ è-júm á-ji  
           5-thing that-5            'that thing'

If the tone following the contour is low, then the contour simplifies to a high tone:

(64) a. à-nám            è-jùm            --> à-nám è-jùm  
           3ps:PFV-buy 5-thing            'she bought something'  
       b. è-jùm    èj-á            --> è-júm èj-á  
           5-thing 5-your            'your thing'

### 3.2.1.5.2 The falling-to-mid contour

When a falling-to-mid contour does not occur before pause, it simplifies to a high tone with the following results in relation to the following tone. If the following tone is either a lexical high tone or a derived high tone, it becomes a downstepped high:

(65) a. ó-nám            á-tí            --> ó-nám ' á-tí  
           2ps:HORT-buy 6-tree            'you should buy trees'  
       b. ó-nám            é-jùm            --> ó-nám ' é-jùm  
           2ps:HORT-buy 5-thing            'you should buy something'

If the following tone is a low tone, the contour simplifies to a high tone without any effect on the following low tone:





b.	kǎ	Ṃ-ṁí		-->	kà	Ṃ-ṁí		
	at	this-9				'at these (villages)'		
c.	Ṃ-mǎn	à-bá		-->	Ṃ-mǎn	á-bá		
	1-child	3ps:PFV-come				'(our) child came'		
d.	Ṃ-mǎn	í	Ṃ-búi		-->	Ṃ-mǎn	í	Ṃ-búi
	1-child	AM	9-goat			'a small goat'		

### 3.2.1.6 Vowel deletion and the persistence of tone

When the second vowel of a root is deleted before the initial vowel of the following word, the tone of the deleted vowel undergoes the following processes: if the tone of the deleted vowel is identical to the first tone of the root, then it merges with this first tone to form a single tone of that type; but if the tone of the deleted vowel is different from the first tone of the root, it joins with this first tone to form a tonal contour. Once this derivational level is achieved, the contour simplification processes described in 3.2.1.5 apply, resulting in the tone found on the initial vowel of the following word. The following table shows the tone of this initial vowel. At the top of the columns are the original tones of the initial vowel, and at the left of the rows are the sequences of tones on the root with the deleted vowel. The intersection of these columns and rows is the derived tone on the initial vowel of the following word. The ligatures indicate a tonal contour. The derived tones which are circled are those for which there is a difference between the original tone and the derived tone. Examples of these three changed tones are given in (67),

following the table in (66).

(66)

Table of Tone Changes

	L	H	$\widehat{HL}$
-L L	L	H	$\widehat{HL}$
-H L	L	$\widehat{H}$	$\widehat{HL}$
-L H	$\widehat{HL}$	H	$\widehat{HL}$
-H H	L	H	$\widehat{HL}$

- (67) a. ò-bébé á-bì                      ---> ò-bébé ' á-bì  
           14-tears that-14                      'those tears'
- b. à-kárè                      è-čù                      ---> à-kár ' è-čù  
           3ps:PFV-give 5-chaff                      'he gave chaff'
- c. ì-nèdé                      ìf-á                      ---> ì-nèd ìf-á  
           19-finger 19-your                      'your finger'

When the deleted vowel is the a of a -Cs root, the original tones of the initials vowel of the following word are changed in very case except where the tone of the deleted a and the tone of the following vowel are identical. Consider the table in (68): The derived tones at the intersections of this table are accounted for as follows: 1) the tone of the deleted vowel persists and joins with the tones of the following vowel, 2) two adjacent tones which are identical merge to form a single tone of that type (e.g.  $\widehat{LL}$  ---> L, or  $\widehat{LHHL}$  --->  $\widehat{LHL}$ , etc.), 3) the tonal contour  $\widehat{HLH}$  simplifies to  $\widehat{H}H$ , and 4) the tonal contour  $\widehat{HLHL}$  simplifies to  $\widehat{HL}$ . Thus, the language permits rising, falling and rising-falling contours, but it does not permit falling-rising or falling-falling contours. In other words, two high tones are not permitted in a contour unless one is downstepped. Note that

ligatures indicate a tonal contour. The derived tones which are circled are those for which there is a difference between the original tone and the derived tone.

(68) Table of Tone Changes following -Ca

	L-	H-	H̄L-
-L	L	(LH)	(LHL)
-H	(H̄L)	H	H̄L
-LH	(LHL)	(LH)	(LHL)
-H̄L	(H̄L)	(H'H)	H̄L

Examples of tones whose derived form is different from their original form are given in (69).

- (69) a. -L H- --> LH  
 ɔ-kà      ɔ-nɔb      --> ɔ-k ɔ-nɔb  
 14-skill 14:PFT-good      'ekill is good'
- b. -L H̄L- --> LHL  
 ɔ-kà      ɔ-ɔɔ      --> ɔ-k ɔ-ɔɔ  
 14-skill 14-sweat:bee      'the skill of sweat bees'
- c. -H L- --> H̄L  
 ɔ-fá      ɔb-á      --> ɔ-f ɔb-á  
 14-tree:pitch 14-your      'your tree pitch'
- d. -LH L- --> LHL  
 ɔ-bǎ      ɔb-á      --> ɔ-b ɔb-á  
 2ps:HORT-butcher 14-your      'you should butcher yours'
- e. -LH H- --> LH  
 ɔ-bǎ      ɔ-n̄ám      --> ɔ-b ɔ-n̄ám  
 2ps:HORT-butcher 14-animal      'you should butcher (types of) meat'



and the verb root if the root is underlyingly -H or -HH.  
DS is also found between all high tone aspectual prefixes.  
It is also found in such aspects as the constituent focus  
perfective and imperfective, the hortative mood with verb  
roots with underlying -LH tone, and the hortative directional  
verb form. For examples of these see the appendix of chapter  
3 and various sections of chapter 5.

DS also occurs in places where tonal contours have been  
simplified, and in cases of vowel deletion. See 3.2.1.5 and  
3.2.1.6.

### 3.3 The representation of tone and tonal processes in Ejagham.

The purpose of this section is to consider the formal representation of tone and tonal processes in WE, which is here represented by the Eyumojok-Ndebaya sub-dialect. This presentation is intended to provide an in depth and comprehensive account of tones in Ejagham in relation to current issues in the study of tone and therefore to be a contribution to the study of tones in general.

In the first section (3.3.1) the representation of contour tones is considered. It is argued that on the basis of internal evidence contour tones in the language should be represented as a sequence of two level tones.

In the second section (3.3.2) the representation of the downstepped high tone as a mid tone is discussed. The argument that in a constrained phonological theory (constrained in the sense that the tonal features available in the theory should not be unnecessarily multiplied) the downstepped high tone may just as well be treated as a mid tone (although a 'restricted' mid tone and therefore still distinguishable in the theory from 'non-restricted' mid tones such as found in Yoruba) is considered. Certain questions this argument raises are noted, and the possibility of conceiving [±DS] as a new and different type of feature, namely, a 'dynamic' feature, is presented. In addition, the general question as to which tone features are appropriate to Ejagham in the overall tone system is considered.

In the third section (3.3.3) various approaches to the representation of tone in generative phonology are reviewed, including the suprasegmental approach which will be used in the presentation of the Ejagham tonal processes.

In the fourth section (3.3.4) the actual tonal processes are discussed and formalized. The assumptions underlying the analysis are made as explicit as possible. The goal of the section is to arrive at the simplest and most general description of these tonal processes within the specified constraints (i.e. assumptions). The tonal processes involve verbs, nouns, associative noun phrases, vowel deletion, the simplification of tonal contours, downdrift and the assignment of phonetic pitch values.

### 3.3.1 Contour tones and their decomposition

The crucial point of this section is that evidence internal to the language supports the decomposition of contour tones into sequences of two, dissimilar level tones. The evidence is of two types. The first type has to do with the distribution of tone on nouns, verbs, pronouns and so on. The second type involves the nature of certain tonal processes and the formalizing of these processes in as general a form as possible.

The first type of evidence has to do with the distribution of tone; and for purposes of the presentation the evidence will be restricted to that from verbs and nouns<sup>16</sup>. However,

before discussing the distribution of tone on verbs it should be noted that verb roots divide into two tone classes: -LH and -H(H). The evidence for the underlying tone of these classes comes from various sources: surface tones, tonal processes, and historical parallels. As can be seen from the appendix to this chapter, the majority of verb forms have -LH (or rising tone) and -H(H) (or downstepped high) on the surface. Those verb forms which do not must be derived either by replacement tone rules, or by tonal processes which are best described if -LH and -H(H) are taken to be the underlying tones from which the surface tones are derived. These processes are discussed in detail in 3.3.4. Finally, these two classes are parallel to the two verb tone classes of Proto-Ekoid, one being -LH and the other -H(H)<sup>17</sup>.

Having established the underlying tone of verbs, consider the following tone contrast on -CVC roots which have a final plosive. The root -kúg 'to shout' is a -H tone verb, and the root -kǎd 'to love' is a -LH tone verb:

- (70) a. á-kúg 'they shouted'  
 b. á-kúg 'they should shout'  
 c. á-kūg 'if they shout'  
 d. á-kùg 'they have shouted'
- (71) a. á-kǎd 'they loved'  
 b. á-kǎd 'they should love'  
 c. á-kǎd 'if they love'  
 d. á-kǎd 'they have loved'

Examples (70b) through (70d) contrast all three level tones, while examples (71b) through (71d) contrast all three contours



tones. A six way contrast is possible if one takes two roots which are segmentally homophonous, such as -kám 'to answer' and -kám 'to squeeze':

- (72) a. á-kám 'they should squeeze'  
 b. á-kām 'if they squeeze'  
 c. á-kàm 'they have squeezed' or 'they have answered'  
 d. á-kām 'they squeezed' or 'they answered'  
 e. á-kām 'they should answer'  
 f. á-kàm 'if they answer'

If one compares these tone patterns on monosyllabic verb roots with those on bisyllabic verb roots such as -rèbè 'to open' and -rèbè 'to lick', one finds that in the latter the contour tones disappear altogether.

- (73) a. á-rèbè 'they should lick'  
 b. á-rèbē 'if they lick'  
 c. á-rèbè 'they have licked' or 'they have opened'  
 d. á-rèbè 'they licked' or 'they opened'  
 e. á-rèbē 'they should open'  
 f. á-rèbè 'if they open'

In the case of (73a) through (73c), the level tones found in (72a) through (72c) have simply been extended across the entire root. Similarly in the case of (73d) through (73f), the contour tones of (72d) through (72f) have been spread across the entire bisyllabic root. The contour tones have been decomposed and the last half of the contour has been transferred to the following syllable. Thus, in the case of verbs, contour tones are decomposable and therefore should be treated as sequences of two level tones.

Besides the distributional facts about contours on verbs,

there are also the distributional facts about contours on nouns. Consider the schema in (74), where the \$ represents a syllable and the hyphen represents a morpheme boundary between the noun prefix and the noun root.

(74)	<u>\$-\$</u>	<u>\$-\$ \$</u>
	L-L	L-L L
	L- $\widehat{LH}$	L-L H
	L- $\widehat{HL}$	L-H L
	L-H	L-H H
	H-H	H-H H
	H- $\widehat{HL}$	H-H L
	H- $\widehat{H'H}$	H-H'H

Of interest here is the distribution of tones over the noun roots. The ligatures indicate that the two tones form a contour tone. The tones in (74) represent the surface tones of the nouns in their elicitation forms. These surface tones are also the underlying tones except for the possible case of those nouns with H- $\widehat{HM}$  and H-H M tone sequences which could be analyzed as underlyingly H- $\widehat{LH}$  and H-L H, respectively. This hypothesis will be discussed in more detail in section 3.3.4. Note that the schema in (74) accounts for almost all tone sequences found on nouns<sup>18</sup>, and that it suggests the decomposition of tone contours on monosyllabic noun roots into two level tones which spread over the two syllables of the bisyllabic noun roots.

However, what is crucial here is to demonstrate that the tone sequences on monosyllabic roots and bisyllabic roots are in some way treated as being equivalent by the language.



b. HIGH --> LOW / HIGH] <sub>verb</sub> noun [LOW-\_\_\_ LOW]

Rule (76a) covers monosyllabic roots such as è-júm 'thing' in (75a), while rule (76b) covers bisyllabic roots such as è-kúbi 'tick' in (75b). However, if the monosyllabic and bisyllabic roots were treated as having equivalent tone sequences, then only one rule would be needed:

(77) HIGH --> LOW / HIGH] <sub>verb</sub> noun [LOW-\_\_\_ LOW]

In the case of monosyllabic roots such as è-júm 'thing', the convention concerning two identical tones on one syllabic segment would apply after the application of rule (77). The derivation in such cases would then be:  $\widehat{HL} \rightarrow \widehat{LL} \rightarrow L$ . It would appear from the above evidence that the language does treat the L- $\widehat{HL}$  and L-H L sequences as equivalent. If space and time permitted it could be shown the language treats the other equivalences in (74) as true equivalences also.

The second piece of evidence comes from cases where the second syllabic segment of a bisyllabic root has been deleted. In these cases, the resultant tone sequence is identical to that of a monosyllabic root in the same context, and in each case the effect on the first syllable of the following word is the same. Compare the examples in (78) through (81) for the different tone sequences indicated.

(78) L- $\widehat{HL}$ /L-H L

a.	è-kón	á-ji	-->	[è-kón á-ji]
	5-song	that-5		'that song'

- b. è-ésédè á-ji                    --> [è-ésér ā-ji]
- 5-news that-5                        'that news'
- (79) L- $\widehat{LH}$ /L-L H
- a. è-bin. èj-è                        --> [è-βin: èj-è]
- 5-farm 5-3ps                            'her farm'
- b. è-gòmé                    èj-è                        --> [è-gòm èj-è]
- 5-plantain 5-3ps                        'her plantain'
- (80) H- $\widehat{HL}$ /H-H L
- a. é-fò á-ji                            --> [é-fó ā-ji]
- 5-cloth that-5                            'that cloth'
- b. é-sébè á-ji                            --> [é-séβ ā-ji]
- 5-sand that-5                            'that sand'
- (81) H- $\widehat{H^0}H$ /H-H 'H
- a. ó-ésó'                    ó-nòb                        --> [ó-só ó-nòP]
- 14-heaven 14:PFT-good                    'the heavens are beautiful'
- b. é-báé                    é-nòb                        --> [é-βá é-nòP]
- 5-two                    5:PFT-good                    'two (of them) are good'

In (78b), (79b), (80b) and (81b) the second syllable has been deleted since it is followed by a word with an initial vowel. The effect is to make the bisyllabic root into a monosyllabic one. But even though the vowel has been deleted, the tone that occurred on that vowel has not been deleted. One does not see on the surface the contour that results, but one does see the effect it has on the following word. In each case, the word with the deleted syllable behaves exactly like the monosyllabic root with the contour tone. In (78) the falling-to-low contour is simplified to a high

tone with the result that the following high tone is lowered to a phonetic mid (or downstepped high). In (79) the rising contour is simplified to a low tone with the result that the following low tone becomes a falling-to-low tone. In (80) the process is identical to that in (78), and in (81) the falling-to-mid contour simplifies to high tone with the same results on the following tone as in (78). Thus, it appears that a sequence of two level tones on a bisyllabic root can become a contour tone on a monosyllabic root when the second syllabic segment is deleted, demonstrating that a sequence of two level tones join to form contours in the language. In other words, contour tones are nothing more than two dissimilar level tones in sequence, and the tone equivalences set up in (74) are true equivalences.

Besides these distributional facts and the processes which treat the equivalences in (74) as true equivalences, there is also the form of certain tone rules which argue for the decomposition of contour tones. One such process involves the simplification of the rising contour (see 3:2.1.5.3). Consider the two examples in (82).

- (82) a. è-bin á-ji                    --> [è-βin á-ji]  
          5-farm that-5                    'that farm'
- b. è-bin èj-é                    --> [è-βin èj-é]  
          5-farm 5-3ps                    'his farm'

In (82a) the rising contour has simplified to a low tone before a high tone, and in (82b) it has simplified to a low tone with the following low tone becoming a falling-to-low

contour. If the contours were treated as tonal units in the language, then two rules would be necessary to cover the examples in (82):

(83) a. RISING ## HIGH --> LOW ## HIGH

b. RISING ## LOW --> LOW ## FALLING-TO-LOW

The transformational type rule (83a) covers cases like (82a) and (83b) covers cases like (83b).

However, if the contour tones were decomposed into two level tones, the process could be formalized in one rule:

(84)  $\widehat{LH}$  ## T --> L ##  $\widehat{HT}$

The 'T' represents any level tone. In this rule, the process is presented as one simply involving the movement of a high tone from one domain to another across a word boundary. In comparing the rule (84) with the two in (83), two points can be made. First, the rules in (83) require two additional tone features in the language in addition to the three level tones: namely, RISING and FALLING-TO-LOW. (Elsewhere it would follow that the feature FALLING-TO-MID would also be needed.) Secondly, the rules in (83) treat the process of rising tone simplification as a complex process involving actually two different processes. Rule (84), on the other hand, treats it as a simple process. Thus, if contour tones are decomposed, the number of tonal features is kept to a minimum, and the rising contour simplification process is treated as a simple, unified process.

### 3.3.2 Downstep and Ejagham tone features in a constrained phonological theory<sup>19</sup>

It is assumed in this discussion that an appropriate goal for linguistic theory is to constrain the notion of 'possible human language' (PHL) as much as the data from natural language permits. The constraints would be made explicit in terms of the form of a possible grammar of language. For example, one might want to claim that a PHL can only have three tones. In terms of the theory of grammar, this constraint could be made explicit by claiming that any grammar of a PHL can only use the features [+high] and [-low] to specify tones, with the additional constraint that \* $\begin{bmatrix} +high \\ +low \end{bmatrix}$  is contradictory and therefore excluded from the grammar. Thus, the three possible tones in a PHL would be:

- (85) a.  $\begin{bmatrix} +high \\ -low \end{bmatrix}$   
b.  $\begin{bmatrix} -high \\ +low \end{bmatrix}$   
c.  $\begin{bmatrix} -high \\ -low \end{bmatrix}$

Of course, such a constraint is incorrect in terms of natural language, but it is given here by way of example of how one can constrain the notion of a PHL.

Turning to a non-hypothetical proposal of a constraint in phonological theory, Anderson (1978) has suggested that in underlying representations a PHL:

- 1) may have at the most only five tones, and
- 2) may not have contour tones.



The first constraint means that only five pitch levels are specified in the theory, and any one language may not have more than these five levels. This constraint has been arrived at inductively. It does not follow deductively from any set of features used to represent tone since any set of features used to specify five levels will also theoretically specify more than five. The second constraint requires that all contours be represented as sequences of level tones. This constraint clearly applies in the case of Ejagham (see 3.3.1). In order to falsify the first constraint, one only needs to find a language with six distinct pitch levels. In order to falsify the second constraint, it would have to be shown that a tonal rule requires the specification of a contour tone as its conditioning factor. In the case of Ejagham neither of these constraints is falsified.

A further consequence of the first constraint is that downstep (DS) is excluded as a tone feature in phonological theory: that is, [ $\pm$ DS] is not needed as a tone feature. The reason for this consequence is that a language with five pitch levels only needs to use the features [ $\pm$ high], [ $\pm$ low], and [ $\pm$ mid], or something to that effect. The feature [ $\pm$ DS] would be restricted to a specific set of languages, and these languages commonly only have three distinct pitch levels, all three of which could be specified with the features necessary for a five pitch language. By contrast,

the features [ $\pm$ high], [ $\pm$ low] and [ $\pm$ mid] are not by definition restricted to a specific set of languages. They are general tone features which are available to any language in order to specify the tone levels of that language.

This consequence of denying DS the status of a tonal feature contradicts the view (at times implicit) taken by numerous linguists who have worked in languages where DS is found: Pike (1970), Welmers (1959, 1973), Hyman (1972, 1976, 1978), Schuh (1978), Hyman and Schuh (1974), Leben (1973, 1978), and so on. Although it is not always clear how these linguists would use [ $\pm$ DS] as a feature, it seems fairly clear that each expects it to have the status of either a tonal feature or a unique tone on par with high and low.<sup>20</sup>

The popular position<sup>21</sup> has been to consider DS either as being present in the underlying representations, or as being inserted via a phonological or morphological rule into the structure before phonetic pitch values are assigned, or to be a combination of these two alternatives. The alternative depended on the language under consideration and on the preferences of the analyst. Whatever the alternative taken, however, the consequence was the same: at some point in the derivation of the phonological structure the typical DS language has a pre-phonetic (i.e. before pitch values are assigned) inventory of high, low and DS<sup>22</sup>. Thus, DS was a phonological tone or feature which the theory was required to permit. Its presence permitted one to distinguish

typologically between a language with high, low and DS, and one with high, low and mid.

Anderson's proposal suggests a modification in this type of analysis. A language with previously analyzed high, low and DS would be reinterpreted phonologically as a language with high, low and 'restricted' mid. The 'restricted' mid, like the DS, could be present in the underlying forms, or it could be inserted by rule, or a combination of these possibilities.

Significantly, however, the difference between a language with DS and a language with non-restricted mid tone would no longer be captured in the phonological representation either by separate DS tone or a tone feature [ $\pm$ DS]. Instead, the difference between the two would be captured in the sequence structure constraints and in the phonetic realization rules<sup>23</sup>. First, the 'restricted' mid tone in a language with DS would never occur in the utterance initial position. This fact would be captured in a sequence structure constraint (SSC) like that in (86).

(86) SSC: \*//  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  (i.e. 'restricted' mid)

The double slashes indicate 'pause'. Note that in a theory which permitted DS as either a separate tone or as a feature a similar SSC would be needed. But it could be specified at the metatheoretical level as a constraint on DS as a tone or feature rather than at the language-specific level.

A further fact for most languages with DS<sup>24</sup> is that the

'restricted' mid tones never follows a low tone<sup>25</sup>. This fact is captured in the SSC in (87):

(87) SSC: \* $\begin{bmatrix} -\text{high} \\ -\text{mid} \end{bmatrix} \begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$

Note that again in a theory which used DS as either a tone or a feature, a SSC similar to that in (87) would also be needed at the language-specific level. Thus, the two constraints in (86) and (87) would be true of a language with 'restricted' mid tone, but they would never be found in a language with non-restricted mid tone.

Secondly, in the phonetic realization rules of a language with DS, a high tone would never receive a higher pitch than the preceding mid tone, whereas in the phonetic realization rules of a language with non-restricted mid tone a high tone would always be higher in pitch than the preceding mid tone<sup>26</sup>. Thus, the distinction between the two languages is not lost. It is no longer expressed with DS as a tone or as a feature, but it is expressed in the SSC's and the phonetic realization rules, two areas in which these two language types are also distinguished in a theory in which DS is permitted as a tone or as a feature. The crucial difference is that Anderson's proposal restricts the number of actual tone features to three, whereas the more common DS approach would require DS as an additional feature. Therefore, in terms of the number of tone features in the theory, Anderson's is more constrained.

At this point two different questions would be appropriate. First, is there any possible counter-evidence to

Anderson's proposal for DS? Secondly, even if Anderson's proposal constrains the theory of tone features to a greater extent than a theory permitting DS as a feature, does this lead to a loss of simplification or generalization in the description of a tone language like Ejagham?

In answer to the first question, there are at least two types of possible counter-evidence. First, if in excluding DS from phonological theory the facts in a specific language required that its tonal analysis be done in terms of six or more phonological tone units instead of DS and three or four level tones, then Anderson's proposal would have to be seriously reconsidered. Such a hypothetical language might have the sequences in (88).

- (88) //H H//  
       //H'H//  
               //H M//  
               //H'M//  
                       //H L//  
                       //H'L//

A language like that in (88) could be analyzed as having either six tones, namely, H, 'H, M, 'M, L and 'L; or three tones and DS. In the first case, Anderson's first constraint would have to be modified but DS would still not be necessary as a feature. In the second case, Anderson's first constraint would stand but DS would have to be permitted as a tone feature.

A second type of counter-evidence would be a language which had a rule which referred to DS in its structural description (i.e. conditioning environment). For example, a language could have a rule which required tone spreading inside the word but blocked it if the tone were downstepped. One could account for this language in terms of different tone levels, some permitting spreading and some not. But this type of analysis would seem to miss a linguistically significant generalization, namely, that it is precisely the downstepped tones which block the tone spreading rule. Such a language would be like that in (89).

(89)	H H H	H' H H
	H H $\widehat{HL}$	H' H L
	H H $\widehat{LH}$	
	H H L	
	L L H	L' H H
	L L $\widehat{HL}$	L' H L
	L L $\widehat{LH}$	L' L H
	L L L	

The language in (89) has DS on both high and low tones. The downstepped high occurs after both high and low tones, and it blocks the spreading of high, thus blocking the formation of the expected  $H' H \widehat{HL}$  and  $L L \widehat{HL}$ . The downstepped low occurs only after low, and it blocks the spreading of low, thus blocking the formation of the expected  $L' L \widehat{LH}$ . Of course, one could analyze the language as having H (high), M (mid), L (low) and XL (extra-low) with both M and XL blocking the

spreading process. The problem here is that these two tones do not form a simple unified class. Instead, the class of tones which blocks spreading would have to be specified as  $\begin{bmatrix} \alpha M \\ -\alpha L \end{bmatrix}$ . At this point it would be an open question as to which analysis should be preferred<sup>27</sup>.

At this point it should be clear that it is theoretically possible to falsify the constraints in Anderson's proposal, but the type of example that must be imagined indicates that such counter-evidence is not likely to be found in human language. It should also be pointed out that an inherent claim of any theory of tone which accepted DS as a tone or tonal feature would seem to be that languages will use DS in the structural condition of their tone rules. Not all languages would have to do so, nor would it have to be in the structural condition of every tone rule, but it should occur in at least one rule of one tone language. As of the present no such language or rule has been found.

This point brings up the second question as to whether the use of DS as a feature would not lead to a simplification or better generalizations in the description of a tone language like Ejagham; even if this meant having an additional feature in the theory. The answer to this question in the case of Ejagham seems to depend on the way in which DS is actually conceived. One typically sees tonal sequences like the following: H'H. But how is this shorthand to be made explicit in terms of features? At least three possibilities

exist:

- (90) a. [+high] [+DS] [+high]  
b. [+high] [+high]  
          [+DS]  
c. [+high] [+high]  
      [+DS]

The specification in (90a) interprets the H'H literally, with three tonal matrices needed to specify the phonetic sequence of pitches 1-2, where 1 is higher than 2. This specification is probably what Pike (1970) had in mind when he referred to DS as a "process" tone, and it is not unrelated to Welmer's (1959) notion of the "drop" tone or Winston's (1960) "downstep" marked with an apostrophe. The specification in (90b) is probably closer to how many today would interpret the sequence H'H. In this case the feature [+DS] belongs to the feature matrix of the tone which is actually lower than the preceding high tone. It helps specify the tonal value of the tone to whose matrix it is assigned. In this way it is identical to all other segmental or tonal features, and in this sense it may be referred to as a 'static' feature, i.e. it does not interact with features outside of the matrix to which it is assigned. The specification in (90c) is probably unlike the interpretation anyone would give the sequence H'H today. However, it is in one sense a modification of (90a). In (90a) the [+DS] had its effect on the tone of the following matrix. Similarly in (90c), the feature [+DS] has its effect on the tone of the following



matrix.' It does not have any effect on the tone to whose matrix it is assigned. In this sense it may be referred to as a 'dynamic' feature, i.e. it interacts with features (namely [+high]) outside of the matrix to which it is assigned.

In the case of Ejagham, it appears that nothing is gained over the 'restricted' mid tone analysis if one attempts to substitute the 'static' notion of DS. In this case, wherever the feature [+DS] occurs, the feature [+mid] can be substituted, with no change in the actual description. However, there does seem to be some significant differences between this 'restricted' mid tone analysis and one which uses the 'dynamic' notion of DS. These two analyses will be compared in 3.3.4.

At this point it should be noted that the 'dynamic' notion of DS has the following features. First, it only co-occurs in the same matrix with the feature [+high]. Secondly, it only interacts to specify a tone value with a following matrix which is also [+high]. Thirdly, this is a formal way of incorporating the notion of the "floating low tone" which historically was the low tone occurring between the two high tones, and whose loss led to the downstepped high tone<sup>28</sup>. There is no reason not to suggest that the language learner incorporates the notion of "downstepped" in this way.

The features which will be used in the analysis in 3.3.4 are the following. For the 'restricted' mid tone analysis

the features are [±high] and [±mid]. For the 'dynamic' DS analysis the features are [±high] and [±DS]. The comparison of these two analyses should lead to an answer to the second question concerning simplification and generalization of the description.

### 3.3.3 Approaches to the representation of tone

Essentially two positions have been taken on the representation of tone in generative phonology: namely, the segmental and the suprasegmental. The segmental position can be further divided into two groups. The first group claims that tones (i.e. tone features) are identical to other phonological features and are to be included within the segmental feature matrices (Schachter and Fromkin 1968, Woo 1969, Maddieson 1971, Fromkin 1972). This position accepts the Chomsky and Halle (1968) claim that a unilinear sequence of segmental matrices provides an adequate means for assigning a phonological representation to a given utterance.

The second group within the segmental position is represented by Anderson (1974). He points out that the columns in the tone feature rows do not in general line up with the other columns in the feature matrix. For example, in languages which have contour tones on both long and short vowels, the tone sequence in the short vowel matrix must be specified by dividing the matrix into two parts. The first part of the matrix specifies the first level tone of the

contour, and the second part the second level tone of the contour. In this way, the tonal feature row does not line up with the other features of the segmental matrix. Still Anderson's position is within the segmentalist camp in that he does not suggest dividing the single segmental matrix into two or more matrices. Instead, he suggests maintaining the unilinear, segmental representation but with the provision that segmental matrices may be divided into two or more parts in the case of certain features, the parts themselves being linearly ordered within the matrix.

The suprasegmental position claims that tones should be separate from the segmental feature matrices and should instead be provided matrices of their own. This position was initiated by Leben (1971, 1973a, 1973b) within the generative approach to phonology, and has been further expanded on by Goldsmith (1975, 1976, 1977) in terms of 'autosegmental phonology'. It has been recently used by Elimelech (1976), Dwyer (1978a, 1978b) and Leben (1978). The position suggests a significant alteration of the Chomsky and Halle model, allowing for a more complex phonological representation of a given utterance in the form of a multilinear representation.

It should be noted, however, that the use of a multilinear or multilevel representation of phonological structure did not originate within the generative framework. Linguists such as Hockett (1942), Pike (1947, 1967), Firth (1948, 1951) and Harris (1951), among others, suggested the analytical relevance of factoring out a feature like tone or pitch from

the segmental representation before the generative framework with its unilinear approach was proposed. In fact, it was an article written within the Firthian prosodic tradition by Edmondson and Bender-Samuel (1966) on tone patterns in Etung, a dialect area within Western Ejaagham, which motivated Leben to consider a suprasegmental approach within the generative approach in the first place. The difference between these earlier linguists and the current suprasegmental approaches, according to Clements (1979), is that Leben and Goldsmith have been much more thoroughgoing and explicit in their account of a multilinear representation than these earlier linguists.

One might justifiably be suspicious of any theoretical claim that tone must be represented either segmentally or suprasegmentally, without any possibility for variation in the form of representation. Of course, if it were possible to maintain in the theory of tone that either one or the other form of representation was the correct one, it would help constrain the class of grammars. However, the empirical facts may not warrant a choice of one or the other form of representation. In fact, the theory of tonal representation may have to permit various mixtures in the type of tonal representation (cf. Fromkin 1974). For example, the theory may have to permit the actual form of representation to be language specific: one language using a segmental form and another using a suprasegmental one. Or the theory may have

to permit the form of representation to vary within a given language, so that a language which has underlying suprasegmental tones may need at some point in the derivation to incorporate the tonal matrices within the segmental matrices so that tone features and segmental features are aligned. Note in Goldsmith's (1975, 1976) approach, where this alignment would be done via association lines, it is not clear whether the association lines constitute a type of incorporation of tonal matrices within segmental matrices and therefore is nothing more than a notational variant of the unilinear approach, or the association lines constitute something substantively different, as Goldsmith claims:

In either of these cases, the theory would have to permit both types of representation, in one case specifying that the permitted variation is across languages and in the other case specifying that the permitted variation may be within the same language but at different levels in the derivation from underlying forms to the phonetic representation. In either case the theory would have to provide a principled way by which the appropriate form of representation could be chosen.

Leben (1973a), who has since changed his mind in favoring only a suprasegmental representation, has argued that the use of both forms of representation is necessary. First, he claimed that the nature of tonal representation is language specific rather than universal. He cited Thai as requiring

a segmental representation, but Mende of Sierra Leone as requiring a suprasegmental one. Secondly, he suggested that some languages require an initial suprasegmental representation which is then associated with the segmental one for the purposes of certain tone rules, citing Ngizim (Hyman and Schuh 1974) as such a language. Other languages, however, may never have tone rules which refer to segmental features and so would not have to associate the tonal and segmental matrices until the entire derivation was finished, the association process actually being the last process in the derivation. Thus, the point at which the tones are associated with the segmental matrices within a derivation is also language specific for those languages with an initial suprasegmental representation. Of course, even if Leben is right, these possibilities are uninteresting without a principled way to decide when and whether a language should have tone represented segmentally or suprasegmentally.

One might counter the position that a multilinear, suprasegmental representation is necessary in some languages by revising the notion of the segment within the linear, segmental representation. The first revision would involve the inclusion of the 'zero segment' within the theory in order to account for floating tones and tonal morphemes (cf. Schachter and Fromkin 1968, Fromkin 1972). The second revision would involve the possibility of dividing a segment into sub-units in order to accommodate a tonal contour which

can be decomposed into two (or mora) level tones which occur on a single syllabic segment (cf. Anderson 1974 and 1978 for such a proposal on tone, Anderson 1972 on diphthongs, and Anderson 1976 on nasal consonants<sup>29</sup>). Of course, even if a segment needs to be divisible into sub-units to account for diphthongs and nasal consonants, it does not automatically follow that tonal contours must also be so represented. But if the theory has already been modified to accommodate diphthongs and nasal consonants by using the notion of the divisible segment, then it would seem the simplest solution to use this accommodation to account for tonal contours. In any case, by incorporating zero segments and the notion of the divisible segment one could maintain the unilinear (i.e. single-phonological-matrix) representation of the speech continuum.

The question then becomes whether or not these two alternative modifications of the standard segmental representation are simply notational variants of each other when it comes to the matter of tone. Or is it possible that one approach is more constrained than the other? Or does one approach capture the generalizations about tone more adequately? Or do certain phenomena follow more 'naturally' from one form of representation than the other?

On the basis of certain evidence it appears that the suprasegmental approach in some form may capture certain generalizations about tone more adequately, and that certain

phenomena follow more naturally from the suprasegmental representation than from the segmental one. Various arguments have been given along these lines in favor of the suprasegmental representation.

First, note that some of the standard arguments in favor of a suprasegmental framework have centered on floating tones, tonal morphemes, and the stability of tone in the presence of vowel deletion. It is argued that the suprasegmental representation by its very nature predicts that such phenomena will occur, whereas the segmental representation does not. In fact, the segmental representation has to be modified to include the 'zero segment' in order to accommodate some of these phenomena. In the suprasegmental framework, however, the fact that synchronically a vowel may be deleted but leave its tone behind, or historically a vowel may be deleted or fused with another leaving behind a floating tone follows naturally from the form of representation since what happens at one level does not require the same thing to happen at another. In fact, one expects cases where certain phenomena such as deletion occur only at one level, according to the form of representation.

In the case of tonal morphemes, such as those in the Tiv verbal system (McCawley 1970), both approaches can account for the facts, but the suprasegmental approach naturally accommodates the fact that the number of tones in the morphemes



does not correspond in each case to the number of syllabic segments, while the segmental approach treats this disparity in a cumbersome manner. Another example of such a case has been given above for Ejagham in section 3.3.1, where the tones of the verb are distributed over the entire verb or verb root, as the case may be, whether that verb or verb root is monosyllabic or polysyllabic. It is natural to expect in a suprasegmental representation that the domain of some tones will not be just a syllabic segment or just one syllable, but may include two or more syllables. It is not natural to expect this in a segmental framework. Instead one expects the domain of tone to be only the syllabic segment (or syllable), and any attempt to indicate that the domain of a tone is greater than one syllable would require another major modification of the segmental representation.

Secondly, another standard argument has concerned contour tones. Although both approaches can account for their presence and participation in rules, the two approaches are not equivalent in the naturalness with which they treat them. For example, consider a tone copy rule which copies the high tone of a rising contour onto the following syllabic segment. In the segmental approach it appears ad-hoc that only the second half of the tonal content in the segmental matrix is copied, whereas in the suprasegmental approach it appears more consistent with other copy rules in that an entire feature matrix is copied. However, this argument is not the strongest in favor of a suprasegmental representation.

As noted above, the segmental theory has already been modified to accommodate diphthongs and nasal consonants in the form of divisible segments, and in the case of diphthongs and nasal consonants it is at times only the second half of the matrix which modifies or is copied onto the following segment.

Thirdly, arguments have been developed in the area of tone distribution: namely, that a suprasegmental approach seems to capture generalizations about tone patterns more adequately than the segmental approach. Take a hypothetical language like that in (91):

(91)	\$	\$ \$	\$ \$ \$
	L	L L	L L L
	H	H H	H H H
	$\widehat{LH}$	L H	L H H
	$\widehat{HL}$	H L	H L L
	$\widehat{LHL}$	L $\widehat{HL}$	L H L

The unacceptable patterns would be those in (92).

(92)	\$	\$ \$	\$ \$ \$
		*L $\widehat{LH}$	*L L H
		*H $\widehat{HL}$	*H H L
	* $\widehat{HLH}$	*H $\widehat{LH}$	*H L H

The segmental approach could account for the unacceptable patterns in terms of morpheme structure constraints, and the suprasegmental approach in terms of tone sequence constraints. In the segmental approach, however, the constraints would have to be stated separately for monosyllabic, bisyllabic and trisyllabic words. This would mean that each of the seven unacceptable tone sequences in (92) would have to be

specified in the grammar. In addition, the constraints would have to specify irrelevant information concerning the presence, absence or optional presence of non-syllabic segments<sup>30</sup>. By contrast, in the suprasegmental approach only the patterns in (93) would have to be specified as unacceptable<sup>31</sup>. Note that the patterns make no mention of syllable structure and non-syllabic segments, both of which are irrelevant to stating the general constraints:

- (93) a. \*[+high] [-high] [+high]  
 b. \*[+high] [+high] [-high]  
 c. \*[-high] [-high] [+high]

It should be clear from the above discussion, that the arguments given in favor of the suprasegmental representation are not ones of necessity. But they are in general ones which favor that form of representation.

#### 3.3.4 Tonal processes in Ejaqham

The goal in this section is twofold: 1) to formally describe the tonal processes of Ejaqham, and 2) to make the description as simple and general as possible. The tonal processes include those involving verbs, nouns, associative noun phrases, the simplification of tonal contours, tone under conditions of vowel deletion, the specification of downdrift and the assignment of pitch values. To see how the description can be as simple and general as possible, two different descriptions will be compared in relation to

each process. One description will use the features [+high] and [+mid]. Note that the feature [+mid] is essentially identical to the use of the feature [+DS], in the 'static' sense (see discussion of (90) in 3.3.2), in this analysis. The analysis would be the same regardless of which feature is actually used. The second description, however, uses a different pair of features. The first is [+high], but the second is the feature which captures the 'dynamic' sense of DS (see discussion of (90) in 3.3.2). In order to make clear that this is a new feature and not the feature for the common notion of DS the second analysis will use [+XDS]. This feature does not mean the tone to whose matrix it is assigned is downstepped. Instead, it means that the tone of the following matrix is downstepped. Thus, it is different than simple [+DS].

In order to make sure that the descriptions of the processes are orderly and principled, certain theoretical constraints have to be placed on the analysis. There are eight such constraints in all:

First, it is assumed that all languages with tone should have their tone represented suprasegmentally. Of course, this assumption itself assumes that a tone language is distinguishable from a non-tone language. However, this assumption does not make any commitment as to the form of representation of the pitch contour in a non-tone language. It simply requires that in the case of Ejagham the phonological representation must consist of two levels of

matrices, one for segmental information and one for tonal information.

Secondly, it is assumed that the association rules associate only surface tones to syllables. This means that all tone assimilation and deletion rules must apply before the association rules. The only exception permitted to this constraint involves tone rules whose conditioning environment includes either segmental or syllabic information. Such rules will be assumed to apply only after the association rules.

Thirdly, the well-formedness condition formulated by Goldsmith (1976) is assumed to apply to this description: namely, that

- 1) each tone is associated with a syllable,
- 2) each syllable is associated with a tone, and
- 3) association lines do not cross.

Fourthly, in the case of rule ordering, the local ordering principle formulated by Anderson (1974) is assumed to apply. Thus, the ordering of the tone rules is specified only in those cases where it is necessary to assure a correct derivation. Otherwise they apply in a natural feeding order.

Fifthly, it is assumed that each morpheme has only one underlying form, and that all allomorphs are derived from this one form.

Sixthly, it is assumed that this one underlying form must be identical in all of its features to at least one of its surface forms. This constraint is normative and not absolute.

Thus, if it is necesssary for the description to dsviate from this norm, the deviation will be tolersted.

Seventhly, it is assumed that in the lexicon every line of tonal matrices is part of an entry which also contains a line of segmental matrices. The effect of this assumption is to prohibit the use of floating tones in the description. This constraint is also normative and not absolute: if a tonal morpheme is shown to be necesssary, it will be permitted in the description. But this prohibition is needed because floating tones are a powerful dsvice in the deescription of tone languages and their power can be abused, so this constraint is used in this description.

Eighthly, if there is a choice between two differant surface forms, it is assumed that the least marked form is the underlying form. However, this constraint is also normative and not absolute: if it can be shown that the marked surface form should be the underlying form, then its use as the underlying form will be tolersted.

Note that historically Ejagham or pre-Ejagham had only two tones: low and high. A description based on only low and high tones underlyingly is possible, but it requires a number of floating low tones. It also leads to a complex analysis of the Ejagham tonal processes, since one is describing historical and synchronic processes at one and the same time. However, the above assumptions require that synchronically Ejagham have three pitch levels specified:

low, high and 'restricted' mid (or DS). It is especially the sixth and seventh assumptions which require these three synchronic levels. For example, the noun ś-sǔ 'sky, heaven' was probably historically ś-sǔ, with low-high over the root. However, under the above assumptions it would have to be synchronically either (94a) or (94b), depending on the features being used:

- (94) a.  $\begin{matrix} \text{ó} & & \text{-s} & & \text{ó} \\ [+high] & - & [+high] & & [+high] \\ [-mid] & - & [-mid] & & [+mid] \end{matrix} = H \ H \ H'$
- b.  $\begin{matrix} \text{ó} & & \text{-s} & & \text{ó} \\ [+high] & - & [+high] & & [+high] \\ [-XDS] & - & [+XDS] & & [-XDS] \end{matrix} = H \ H' \ H$

Finally, note that even though the sixth assumption is a surface-oriented one, it is still not as surface or phonetic-oriented as Hooper's (1976) proposal for phonology in which the strong alternation condition for morphophonology (cf. Kiparsky (1973)) is combined with a no-ordering constraint. As Fromkin (1976) has demonstrated, such a concrete phonological theory does not in general allow an account of tonal phenomena, especially of tones in a language with a potentially infinite number of pitch levels. The eight assumptions above allow a sufficient degree of abstraction for the description of Ejagham tones which itself has a potentially infinite number of phonetic pitch levels.

#### 3.3.4.1 The verb

It was argued in section 3.3.1 that verb roots fall into two tone classes with the underlying tones being -LH and -H. It was noted that in many cases these tones appear in

the surface forms of the verb, in other cases they are changed by tonal processes, and in other cases they are entirely replaced by other tone patterns. The cases involving the replacement of the underlying tone will be considered in section 3.3.4.3. In this section the basic tone rules which manipulate the underlying tones of verbs are presented, along with the needed association rules. The presentation will include verbs from both tone classes, and it will cover all affixed, non-periphrastic verb forms.

#### 3.3.4.1.1 The hortative

The relevant surface tones for the hortative are given in (95). The tones for 3pp are identical for all other persons except 3ps:

- (95) a. à-gùdí 'he should sell'  
           á-gùdí 'they should sell'
- b. à-káné 'he should fry'  
           á-káné 'they should fry'

The -H tone verb root -káné 'to fry' presents no difficulties in relating the underlying to the surface tones since they are identical. The only process involved in these cases, as well as the 3ps of the -LH tone verb root -gùdí 'to sell', is that of association. The association rule may be formulated as follows:

#### (96) Association rule

Associate the first tone  $T_1$  with the first syllable  $S_1$ , the second tone  $T_2$  with the second syllable  $S_2$ , and so on within the word.





(98) [+high] --> [+high] / [-high] \_\_\_\_\_  
           [+mid]

(99) [-high] --> [+high] / HORT [+high] - \_\_\_\_\_  
           [-mid]

These rules would apply as follows:

(100) a-gudi -(98) → a-gudi -(99) → a-gudi -(96) → a-gudi  
        ↓   ↓   ↓           ↓   ↓   ↓           ↓   ↓   ↓           ↓   ↓   ↓  
        \$- \$ \$            \$- \$ \$            \$- \$ \$            \$- \$ \$  
        H- L H             H- L H            H- H H             H- H H

'they should sell'

In the 'dynamic' DS analysis, using the features [±XDS], only one rule is necessary. This rule (101) raises a [-high] tone to [+high] following the [+high] tone prefix of the hortative. But in addition it assigns the feature [+XDS] to this [+high] tone, guaranteeing that the [+high] tone which follows it will be lower than this derived [+high] tone.

(101) [-high] --> [+high] / HORT [+high] - \_\_\_\_\_  
           [+XDS]

This rule applies as follows:

(102) a-gudi -(101) → a-gudi -(96) → a-gudi  
        ↓   ↓   ↓           ↓   ↓   ↓           ↓   ↓   ↓  
        \$- \$ \$            \$- \$ \$            \$- \$ \$  
        H- L H             H-XH H            H-XH H

Note that the derivations in (100) and (102) would be the same for a monosyllabic root except that the Well Formedness Condition would have to apply to make sure that the last tone is associated with the second and last syllables in the word. Otherwise this final tone would be left unassociated if only rule (96) applied.

### 3.3.4.1.2 The conditional

The relevant surface tones for the conditional are given

in (103). The tones for 3pp are identical for all other persons in this mood.

- (103) e. á-gùdí 'if they sell'  
 b. á-kāṅē 'if they fry'

The tones for the -H tone verb roots present the only problem in relating the underlying to the surface tones. The tones for the -LH tone verb roots in (103a) come directly from the underlying forms: a high tone prefix and low-high over the root.

In order to account for the surface tones in (103b), the 'restricted' mid tone analysis could, under other constraints, use a floating low tone between the prefix and the -H tone verb root. The downdrift rule (98) would then apply, changing the [+high] tone of the verb root, and then the floating low tone would be deleted<sup>33</sup>. Thus, at least an additional rule deleting a floating low tone would be needed. However, in this description floating low tones are not permitted unless shown to be necessary. In this case, a different type of additional rule could be formulated which simply added the feature [+mid] to the already [+high] verb roots.

$$(104) \quad [+high] \rightarrow \begin{bmatrix} +high \\ +mid \end{bmatrix} / \text{COND}^{[+high]} - \text{---}$$

This rule would apply as follows:

$$(105) \quad \begin{array}{ccccccc} \text{a-kāṅē} & \xrightarrow{-(104)} & \text{a-kāṅē} & \xrightarrow{-(96)} & \text{a-kāṅē} & \xrightarrow{-(WFC)} & \text{a-kāṅē} \\ \begin{array}{c} \$- \\ \$- \\ \$- \end{array} & & \begin{array}{c} \$- \\ \$- \\ \$- \end{array} & & \begin{array}{c} \$- \\ \$- \\ \$- \end{array} & & \begin{array}{c} \$- \\ \$- \\ \$- \end{array} \\ \text{H- H} & & \text{H-'H} & & \text{H-'H} & & \text{H-'H} \\ & & & & \text{'if they fry'} & & \end{array}$$

Note that this derivation ends with 'H associated with two

ayllables. This fact is to be interpreted as follows: when the 'H' tone receives a phonetic pitch value e.g. '2', where '1' is highest in pitch, both syllables would have the pitch value '2'.

Note that the environment for rule (104) actually needs to be expanded to cover all forms of the conditional mood since DS is pervasive throughout the mood (see 6.6.4.1 and 6.7 for examples). The environment would have to be specified as follows:

(106)  $[+high] \rightarrow \begin{bmatrix} +high \\ +mid \end{bmatrix} / \text{COND} \left[ \begin{matrix} [+high] \\ \text{Pf} \end{matrix} \right] - \left( \left[ \text{---} \right] \right) - \left( \left[ \text{---} \right] \right) - \left[ \text{---} \right]$

'Pf' stands for 'prefix' such as the negative conditional prefix ró- and the repetitive prefix kpó-. Consider the following derivation which has both of these prefixes:

(107)  $\begin{matrix} a-ro-kpo-kane & \xrightarrow{-(106)} & a-ro-kpo-kane & \xrightarrow{-(96)} \\ \begin{matrix} \$- & \$- & \$- & \$- \\ | & | & | & | \\ H- & H- & H- & H \end{matrix} & & \begin{matrix} \$- & \$- & \$- & \$- \\ | & | & | & | \\ H- & 'H- & 'H- & 'H \end{matrix} \end{matrix}$

$\begin{matrix} a-ro-kpo-kane & \xrightarrow{-(WFC)} & a-ro-kpo-kane & \text{'if they do not} \\ \begin{matrix} \$- & \$- & \$- & \$- \\ | & | & | & | \\ H- & 'H- & 'H- & 'H \end{matrix} & & \begin{matrix} \$- & \$- & \$- & \$- \\ | & | & | & | \\ H- & 'H- & 'H- & 'H \end{matrix} & \text{fry again'} \end{matrix}$

Note that the process in (106) is similar to that in (98) except the process in (98) involves synchronic downdrift while that in (106) involves historic downdrift which is today captured as a simple DS.

In the 'dynamic' DS analysis no rules are needed to account for the final forms in (105) or (107). Instead, the subject prefix and verbal prefixes in the conditional mood have the

underlying tone [+high]. The feature [+XDS] guarantees that

a following [+high] tone will be lower in pitch (i.e. downstepped) than the [+high] tone in whose matrix the [+XDS] feature occurs. The final form in (105) would have the underlying tones in (108a), and the final form in (107) would have those in (108b).

(108) a.     a     -     ka     nɛ     'if they fry'  
                   \$     -     \$     \$  
                   [+high] - [+high]  
                   [+XDS] - [-XDS]

b.     a     -     rɔ     -     kpɔ     -     ka     nɛ     'if they do not fry'  
                   \$     -     \$     -     \$     -     \$     \$  
                   [+high] - [+high] - [+high] - [+high]  
                   [+XDS] - [+XDS] - [+XDS] - [-XDS]

Thus, for the 'restricted' mid tone analysis requires three tone rules: a downdrift rule (98), a low tone raising rule (99), and "downstep" rule (106). The 'dynamic' DS analysis only requires one rule: a low tone raising rule (101). In addition, the 'restricted' mid tone analysis treats the DS seen thus far as rule-governed, while the 'dynamic' DS analysis treats it as being lexicalized.

### 3.3.4.1.3 The constituent-focus perfective

The relevant surface tones of the constituent-focus perfective are given in (109). The tones of the 3ps are identical for every person but the 3pp.

(109) a. à-gùd-í 'he sold (it)'  
           á-gùd-í 'they sold (it)'

b. à-kán-ē 'he fried (it)'

á-kán-ē 'they fried it'

Note that the second vowel of these -CVCV roots has been deleted in the presence of the constituent focus suffix. Note also that the final glida of the 3ps in (109a) is due to the simplification of the rising contour on the derived monosyllabic root -gúd. The form of the 3ps before the simplification would be: à-gúd-í 'he old (it)'.  
The form of the 3ps before the simplification would be: à-gúd-í 'he old (it)'.

There are three features of the forms in (109) which have to be accounted for. First, the 3pp form in (109a) of the -LH tone verb root has no obvious tonal relationship to its underlying tones. In fact, it appears to be a -H tone verb root instead. This disparity will be accounted for in both analyses with a replacive tone rule to be discussed in 3.3.4.3. Secondly, the suffix in every case is downstepped in relation to the final verb root tone. Thirdly, unlike other verb forms which have a final high or downstepped high tone, this verb form does not cause a following low tone noun prefix to be raised to high. The second and third features of the forms in (109) suggest that historically the suffix had the tone sequence \*L H L; the first low leading to the downstepping of the high and the second low blocking the raising of a following low tone noun prefix. However, synchronically under the present constraints the use of two floating low tones is not possible.

Turning to the two analyses, in the 'restricted' mid tone

analysis the fact that the suffix is downstepped can be accounted for lexically: the suffix can be specified simply as  $\left[ \begin{smallmatrix} +high \\ +mid \end{smallmatrix} \right]$ . These features guarantee that the suffix will be downstepped when it follows a final high tone of a verb root. However, accounting for the fact that this  $[+high]$  tone does not raise a low tone noun prefix is more problematic. Without the possible use of a floating low tone which would remain until all low tone noun prefixes that are supposed to be raised are raised and then would be deleted, the only solution is to specify an exception to the rule which raises such low tones (see 3.3.4.2), excluding the constituent-focus perfective verb form from participating in the rule.

In the 'dynamic' DS analysis the fact that the suffix is downstepped would have to be accounted for by a morphological rule like that in (110):

$$(110) \quad [+high] \rightarrow \left[ \begin{smallmatrix} +high \\ +XDS \end{smallmatrix} \right] / \text{---} ]_{Rt.} \quad C.Foc [ \quad ] ]_{PFV}$$

In this rule, 'Rt' stands for 'root' (i.e. verb root) and 'C.Foc' stands for 'constituent-focus suffix'. This rule adds the dynamic DS feature  $[+XDS]$  to the final high tone of any verb root. In order to account for the fact that this final  $[+high]$  tone does not raise a low tone noun prefix, the same solution has to be used as in the 'restricted' mid tone analysis<sup>34</sup> namely, the rule raising such low tones has to specify that the constituent-focus perfective is an exception and does not participate in the rule (see 3.3.4.2).

Note that the rule (110) would apply as follows:

(111) a-kaŋ-ɛ --(110)-- a-kaŋ-ɛ --(96)-- a-kaŋ-ɛ 'he fried (it)'

$\begin{array}{c} \text{\$/} \\ \text{\$/} \\ \text{\$/} \end{array}$ 
 $\begin{array}{c} \text{\$/} \\ \text{\$/} \\ \text{\$/} \end{array}$ 
 $\begin{array}{c} \text{\$/} \\ \text{\$/} \\ \text{\$/} \end{array}$

L- H -H                      L-XH -H                      L-XH -H

Notes that the beginning of the derivation (111) already has the final vowel of the bisyllabic root -káné 'to fry' deleted, and the suffix vowel has been resyllabified as the syllabic segment of the syllable containing the velar nasal ŋ.

#### 3.3.4.1.4 The habitual

The relevant surface tones of the habitual are given in (112). The tones of the 3ps are identical to those for all other persons except the 3pp.

- (112) a. à-gùd-á 'she sells'  
           á-gùd-á 'they sell'
- b. à-kán-á 'she fries'  
           á-kān-ā 'they fry'

In (112) the final vowels of -gùdí 'to sell' and -káné 'to fry' have been deleted in the presence of the habitual suffix -á. The final high tone of the -LH tone verb root -gùdí has merged with the high tone of the suffix after the application of the tone contour simplification rules (see 3.3.4.5).

The only form which poses any problem in accounting for the relation between underlying and surface tones is the 3pp form in (112b): á-kān-ā 'they fry'. In the 'restricted' mid tone analysis this form could be accounted for by a further specification in the morphological rule (106). This



rule can be expanded as in (113):

$$(113) \quad [+high] \rightarrow \begin{matrix} [+high] \\ [+mid] \end{matrix} \left\{ \begin{array}{l} \text{COND} \left[ \begin{array}{l} [+high] \\ \text{Pf} \end{array} \right] - \left( \left[ \text{---} \right] \right) - \left( \left[ \text{---} \right] \right) - \left[ \text{---} \right] \\ \text{HAB} \left[ [+high] - \text{---} \right] \end{array} \right\}$$

This rule would guarantee that the -H tone verb roots would be downstepped following the prefix of the 3pp in the habitual aspect.

In the 'dynamic' DS analysis this form would be accounted for lexically. The prefix of the 3pp would be  $\begin{bmatrix} +high \\ +XDS \end{bmatrix}$ , contrasting with the prefix of the 3ps which would simply be [-high]: This tonal matrix on the prefix would guarantee the downstepping of all -H tone verb roots in this aspect.

#### 3.3.4.1.5 The constituent-focus imperfective<sup>35</sup>

The relevant surface tones of the constituent-focus imperfective are given in (114). The tones of the 3ps are identical to those for all other persons except the 3pp.

- (114) a. á-gùd-á 'she sells/is selling'  
           á-gùd-ā 'they sell/are selling'
- b. á-kāŋ-ā 'she fries/is frying'  
           á-kāŋ-ā 'they fry/are frying'

Again the final vowels of these -CVCV roots have already been deleted in the forms in (114). Also the derived contour of the 3pa form in (114a) has already been simplified (see 3.3.4.5):

Of the forms in (114), only the 3ps in (114a) has surface tones which are directly relatable to the underlying tones. The 3pp forms in (114a) and (114b) pose two problems. First,

the imperfective suffix -á is downstepped. One might attempt to account for this in the same way that the downstepped suffix of the constituent-focus perfective was accounted for (see 3.3.4.1.3). However, in that case the downstepped suffix was pervasive throughout the paradigm, whereas in this case it is found only in the 3pp. In all other persons it is simply [+high], with no downstepping. Secondly, the -LH tone verb root of the 3pp in (114a) is unexpectedly high, identical to the 3pp of the -H tone verb root in (114b). Since the downstepping of the suffix is restricted to the 3pp, and since the difference between the two tone classes of verb roots is neutralized in the 3pp, these forms will be accounted for by replacing tone rules in both analyses (see 3.3.4.3).

This leaves the 3ps of the -H tone verb root in (114b). In the 'restricted' mid tone analysis the DS between the high tone prefix and the high tone verb root is accounted for by the morphological rule (113). This rule can now be specified as in (115):

$$(115) \text{ [+high] } \rightarrow \left. \begin{array}{l} \text{[+high]} \\ \text{[+mid]} \end{array} \right\} \left\{ \begin{array}{l} \text{COND} \left[ \begin{array}{l} \text{[+high]} - \left( \begin{array}{l} \text{[ ]} \\ \text{Pf} \end{array} \right) - \left( \begin{array}{l} \text{[ ]} \\ \text{Pf} \end{array} \right) - \left( \begin{array}{l} \text{[ ]} \\ \text{Rt} \end{array} \right) - \left( \begin{array}{l} \text{[ ]} \\ \text{[ ]} \end{array} \right) \end{array} \right] \\ \text{HAB} \left[ \text{[+high]} - \text{[ ]} \right] \\ \text{C.Foc.IMPFV} \left[ \text{3ps} \left[ \text{[+high]} - \text{[ ]} \right] \right] \end{array} \right\}$$

The third environment in (115) guarantees that in the 3ps of the constituent-focus imperfective the -H tone verb roots will be downstepped following the high tone subject prefix.

In the 'dynamic' DS analysis this 3ps form in (114b) would be accounted for lexically. The tone of the subject prefix in this case would be [+high], guaranteeing that any following high tone would be downstepped following the prefix.

### 3.3.4.1.6 High tone verbal prefixes

There are a number of high tone verbal prefixes: s.g. kí- 'CONTINUOUS', kpó- 'REPETITIVE', ká- '3pp GENERAL NEGATIVE', bó- 'NEGATIVE IMPERFECTIVE', ró- 'NEGATIVE CONDITIONAL' and jí- and bá- in the 3ps of the 'DIRECTIONAL HORTATIVE'. With each of these prefixes a -LH tone verb root remains unchanged, but a -H tone verb root is downstepped following them. See the appendix of verb forms at the end of this chapter or chapter 6 on the verb for details, but consider the following examples:

- (116) a. à-kí-gùdí 'she is selling'  
           à-kí-kāṅē 'she is frying'
- b. à-kpó-gùdí 'she should sell again'  
           à-kpó-kāṅē 'she should fry again'
- c. á-ká-gùdí 'they did not sell'  
           á-ká-kāṅē 'they did not fry'
- d. á-bó-gùdí 'they are not selling'  
           á-bó-kāṅē 'they are not frying'
- e. à-jí-gùdí 'she should go and sell'  
           à-jí-kāṅē 'she should go and fry'

In the 'restricted' mid tone analysis, this change in the tone of the -H tone verb roots would be accounted for by the

morphological rule (115) which would have to be further  
 epscified for the laet two environments given in (117):

(117) [+high] -->  $\begin{bmatrix} +high \\ +mid \end{bmatrix}$  /

COND  $\begin{bmatrix} [+high] - ([ \_ ] ) - ([ \_ ] ) - [ \_ ] \\ \text{Pf} \quad \text{Pf} \quad \text{Rt} \end{bmatrix}$

HAB  $\begin{bmatrix} [+high] - [ \_ ] \end{bmatrix}$

G.Poc.IMPFV  $\begin{bmatrix} 3\text{pe} [+high] - [ \_ ] \end{bmatrix}$

$\left\{ \begin{array}{l} \text{(REP).CONT} \\ \text{REP.HORT} \\ \text{DEP.TEMP} \\ \text{(REP).GEN.NEG} \\ \text{(REP).NEG.IMPFV} \\ \text{CESS} \\ \text{REP.NEG.IMPER} \end{array} \right\} \begin{bmatrix} \text{Sbj} [ \_ ] - (\text{Pf} [ \_ ]) - \text{Pf} [+high] - [ \_ ] \\ \text{Pf} \end{bmatrix}$

DIR.HORT  $\begin{bmatrix} 3\text{pe} [ \_ ] - \text{Pf} [+high] - [ \_ ] \end{bmatrix}$

The last two environments account for the various cases of  
 DS between a verbal prefix and a -H tone verb root. The  
 abbreviations are as follows: SjbPf is 'subject prefix',  
 CONT is 'CONTINUOUS', REP.CONT is 'REPETITIVE CONTINUOUS',  
 REP.HORT is 'REPETITIVE HORTATIVE', DEP.TEMP is 'DEPENDENT  
 TEMPORAL', GEN.NEG is 'GENERAL NEGATIVE', REP.GEN.NEG is  
 'REPETITIVE GENERAL NEGATIVE', NEG.IMPFV is 'NEGATIVE  
 IMPERFECTIVE', REP.NEG.IMPFV is 'REPETITIVE NEGATIVE  
 IMPERFECTIVE', CESS is 'CESSATIVE', REP.NEG.IMPER is  
 'REPETITIVE NEGATIVE IMPERATIVE', and DIR.HORT is 'DIRECTIONAL  
 HORTATIVE'.

In the 'dynamic' DS analysis all of these cases of DS are  
 accounted for lexically. In each case the prefix would have

the tone features  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{XDS} \end{smallmatrix} \right]$ , guaranteeing by the feature [+XDS] that the high tone of a -H tone verb root is downstepped:

### 3.3.4.1.7 The imperative

The REPETITIVE NEGATIVE IMPERATIVE was discussed in 3.3.4.1.6 above, but there remain three other imperative forms: the IMPERATIVE, the REPETITIVE IMPERATIVE, and the NEGATIVE IMPERATIVE. These are exemplified in (118), (120) and (122), respectively.

- (118) a. gùdì            'sell!'  
           kánè            'fry!'
- b. gùd(i) èn      'sell (pl)!'  
           kán(è) èn      'fry (pl)!'
- c. gùdì bì-yù    'sell yams!'  
           káné bí-yù    'fry yame!'
- d. gùd(i) è-yù    'sell (the) yam!'  
           kán(è) é-yù    'fry (the ) yam'
- e. gbǒ            'fall!'  
           kpǒ            'die!'
- f. fì-í            'grasp!'  
           kpí            'learn!'
- g. fì-í Ì-tág    'grasp (the) sack!'  
           kpí é-jùm    'learn (that) thing!'

In each of these examples, the first verb belongs to the -LH tone verb root class and the second to the -H tone verb root class. In many of the examples, there is clear evidence for an additional final low tone in addition to the underlying verb root tone. These examples can be accounted for by a low tone insertion rule which applies in two different





tones, and in these cases the negative prefix appears to have an underlying low tone.' However, the -LH tone verb roots have surface tones which differ from their underlying tones, and so have to be derived in some manner. For both analyses, an underlying low-high tone sequence will be posited for the negative prefix. The final high tone of the prefix merges with the high tone of the -H tone verb roots and so explains the simple low tone on the prefix (see contour simplification in 3.3.4.5). But in the case of -LH tone verb roots the final high of the prefix creates a new tone sequence over the root: namely, high-downstepped high. This tone sequence is identical to that found on -LH tone verb roots in the hortative (see 3.3.4.1.1). In fact, it can be accounted for by the same processes used to account for the hortative.

In the case of the 'restricted' mid tone analysis, the the downdrift rule (98) applies, lowering the final high tone. Then the low tone raising rule (99) applies, raising the initial low tone of the root to high. At this point, the high tone of the prefix would merge with the derived high tone of the root during the contour simplification process (see 3.3.4.5), just as happens with the -H tone verb roots.

In the case of the 'dynamic' DS analysis, the low tone raising rule (101) would apply, specifying the derived tone as  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{XDS} \end{smallmatrix} \right]$ . The feature [+XDS] would guarantee that the



final high tone would be downstepped in relation to the derived high tone. At this point, the contour simplification rule (see 3.3.4.5) for rising contours would apply, simplifying the prefix tone.

#### 3.3.4.1.8 The directional hortative

The relevant surface tones of the directional hortative are given in (123). The tones of the 3pp are identical to those for all other persons except the 3ps.

- (123) a. à-jí-gùdí 'he should go and sell'  
           é-jí-gùdí 'they should go and sell'
- b. à-jí-kānē 'he should go and fry'  
           á-jí-káné 'they should go and fry'

The 3ps forms were already discussed in section 3.3.4.1.6. In the 'restricted' mid tone analysis the downstepped high tone of the -H tone verb roots was accounted for by rule (117) which changed the tone features for the root tones from [+high] to  $\begin{bmatrix} +high \\ +mid \end{bmatrix}$ . In the 'dynamic' DS analysis this DS was accounted for lexically: the underlying tone of the directional prefix, in this case ji- 'go', in the 3ps is  $\begin{bmatrix} +high \\ +XDS \end{bmatrix}$ .

The 3pp forms can be accounted for in identical fashion to the hortative in 3.3.4.1.1. In the 'restricted' mid tone analysis the downdrift rule (98) and the low tone raising rule (99) apply to give the correct 3pp form in (123a). In the 'dynamic' DS analysis the low tone raising rule (101) applies to give the correct form. However, the significant

point in this analysis is that the directional prefix in the 3pp is specified simply as  $[+high]$ . This specification contrasts with the same prefix in the 3ps: namely,  $[+high]$ . Note that it is the  $[+XDS]$  tone which does not permit a following low tone to assimilate to the high tone as in à-jí-gùdí 'he should go and sell', while it is the  $[-XDS]$  tone which permits such assimilation as in á-jí-gùdí 'they should go and sell'. This tonal feature also underlies the difference between the hortative (see 3.3.4.1.1) and the conditional (see 3.3.4.1.2) forms: the hortative prefixes (other than 3ps) are all  $[-XDS]$ , while the conditional prefixes are all  $[+XDS]$ . In the hortative the low tone assimilates, giving á-gùdí 'they should sell'; while in the conditional the low tone does not assimilate, giving á-gùdí 'if they sell'.

Thus, the feature  $[\pm XDS]$  not only accounts for DS, it also accounts for the presence and absence of low tone raising. The historical reason for the performance of this feature is that it represents historical  $*H L$  in sequence: that is,  $[+XDS] < *H L$ , and  $[-XDS] < *H$ . Historically a low tone was never raised following the sequence  $H L$ , so today it is not raised following  $[+XDS]$ . Crucially, what the feature  $[\pm XDS]$  does is provide a DS feature which actually participates in the conditioning of tonal processes. This point is relevant to the discussion in 3.3.2 where it was pointed out that DS as a feature has not done this day been

found to participate in the conditioning of tonal processes. Of course, a significant difference appears here: past analyses of tone languages of DS have generally taken DS as a 'static' feature, whereas in this analysis DS is taken as a 'dynamic' feature. Thus, a shift in the notional content of DS has given significance to it as a tonal feature.

### 3.3.4.2 The noun

In section 3.2.1 the change in tone of nouns with low tone prefixes when they follow certain high tones was discussed. Examples of this process were also given in that section. However, for expository reasons a monosyllabic and bisyllabic root from (48) and (49) are again given here in (124). Both the lexical and the derived tones are given. The lexical tone of a noun is that tone which occurs on the surface in the elicitation form, when it occurs as the subject of a sentence and it is utterance initial, and when it occurs as the object after a verb with a final low tone. The goal here is to account for the derived forms:

(124)	<u>Lexical tone</u>	<u>Derived tone</u>	
a.	è-bàm	é-bàm	'bag'
	è-jòṅè	é-jòṅè	'thorn'
b.	è-bín	é-bín	'farm'
	è-gòmé	é-gòmé	'plantain'
c.	è-jòm	é-jòm	'thing'
	è-róbè	é-róbè	'tongue'
d.	è-tég	é-tég	'village'
	à-jéné	á-jéné	'strangers'

In the 'restricted' mid tone analysis, the first rule would be the downdrift rule (98). The application of this rule would guarantee that high tone noun roots like those in (124d) would be downstepped. The second rule would be the low tone raising rule (99). As discussed above in sections 3.3.4.1.7 and 3.3.4.1.8, rule (99) has to be further specified for the negative imperative and the directional hortative. Now it also has to be further specified for nouns as follows:

(125) [-high] -->  $\begin{bmatrix} +high \\ -mid \end{bmatrix} /$

a.  $\left\{ \begin{array}{l} \langle \text{DIR}_1 \rangle \text{ HORT} \\ \langle \text{NEG.IMPER}_2 \rangle \end{array} \right\} \left\{ \begin{array}{l} \langle \text{3pp} [ ] \#_1 \rangle \\ \langle \text{[-high]}_2 \rangle \end{array} \right\} [+high] \# \text{---}$

b.  $[+high]_X \# \# \text{ NOUN} [ \text{---} \left\{ \begin{array}{l} \text{exception:} \\ X \neq \text{C.Foc.PFV} \end{array} \right\} ]$

Environment (125a) accounts for the raised low tone in verbs. In the hortative mood, there is only a high tone prefix. In the directional hortative there is a 3pp prefix followed by a high tone directional prefix. In the negative imperative there is a prefix which has the sequence low-high. In each case it is the low tone of the verb root which is raised.

Environment (125b) accounts for the raising of low tone noun prefixes, as shown in the derived forms in (124), following a word with a final high tone. Even though the



be further specified to include the negative imperative and the directional hortative, but it also can be generalized to all verb forms because of the role played by the feature [ $\pm$ XDS] in the process of low tone raising. Thus, rule (101) can be reformulated for both verbs and nouns as follows:

$$(128) \quad [-\text{high}] \rightarrow \begin{bmatrix} +\text{high} \\ +\text{XDS} \end{bmatrix} / \left\{ \begin{array}{l} \text{VERB} \begin{bmatrix} X \\ [+high] \\ -\text{XDS} \end{bmatrix} \text{---} \\ \text{---} \\ \begin{bmatrix} [+high] \\ -\text{XDS} \end{bmatrix} \text{---} \end{array} \right\} \\ \text{exception:} \\ X \neq \text{C.Foc.PFV} \quad \begin{array}{l} \text{---} \\ \text{---} \\ \text{---} \end{array} \text{NOUN} \begin{bmatrix} \text{---} \\ \text{---} \\ \text{---} \end{bmatrix}$$

Note the simplicity of rule (128) by comparison to rule (125). In (128) it is stated that anywhere within a verb where a high tone precedes a low tone and that high tone is also [-XDS], then the low tone will assimilate to the preceding high tone. It is also stated that any initial low tone on a noun will also assimilate to a preceding high tone as long as that high is also [-XDS]. This means that non-derived high tones are causing following low tones to be raised, while derived high tones have no such power. This also means that both historically and synchronically any low tone on a verb or noun will assimilate (or has assimilated) to a preceding high tone, whether it is separated from the high by a word or morpheme boundary, as long as that high tone is not derived, either historically or synchronically. The one exception is low tone verb prefixes which no doubt have been excluded from the process because of the crucial semantic and aspectual-modal role they play in the language, and the role tone plays in marking these functions on them.

Note that this generalization has applied within nouns just as it does within verbs today. Consider the following three nominals with their present day tones:

- (129) a. ó-j̄5 'tomorrow'  
 b. ó-s̄5 'sky, heaven'  
 c. é-báē 'two'

Historically these three nominals can be reconstructed as having a high tone prefix with a low-high tone sequence on the root. But when the tonal process of raising low tones was innovated, the initial low tone on the root was raised to high, leaving the final high tone of the root downstepped. Today in the language there are no nouns with the sequence H-L H: the low tone raising process has changed all such forms.

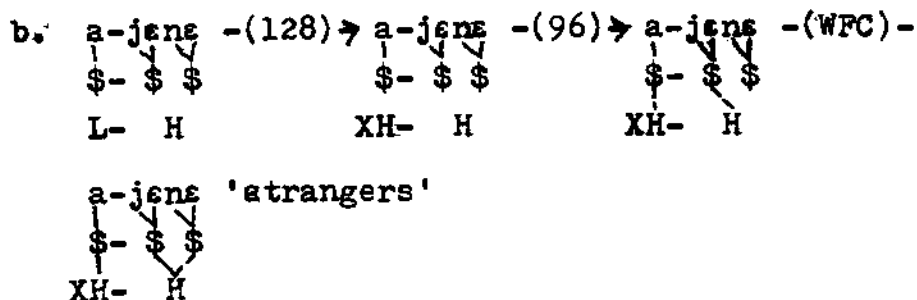
Rule (128) accounts for all the nouns in (124) except for those in (124c). Rule (130), which deletes a high tone between a high tone also specified as [+XDS] and a low tone, accounts for these nouns:

$$(130)^{36} \begin{bmatrix} +\text{high} \\ -\text{XDS} \end{bmatrix} \rightarrow \emptyset / \# \# \begin{bmatrix} +\text{high} \\ +\text{XDS} \end{bmatrix} \text{ — } [-\text{high}] \# \#$$

Consider the following derivations: one of a noun from (124c) and one of a noun from (124d):

(131) a.  $\begin{array}{c} \text{é-rəbɛ} \\ \text{\$/- \$/ \$/} \\ \text{L- H L} \end{array} \xrightarrow{-(128)} \begin{array}{c} \text{é-rəbɛ} \\ \text{\$/- \$/ \$/} \\ \text{XH- H L} \end{array} \xrightarrow{-(130)} \begin{array}{c} \text{é-rəbɛ} \\ \text{\$/- \$/ \$/} \\ \text{XH- L} \end{array} \xrightarrow{-(96)}$

$\begin{array}{c} \text{é-rəbɛ} \\ \text{\$/- \$/ \$/} \\ \text{XH- L} \end{array} \xrightarrow{-(\text{WFC})} \begin{array}{c} \text{é-rəbɛ} \\ \text{\$/- \$/ \$/} \\ \text{XH- L} \end{array}$  'tongus'



### 3.3.4.2.1 Rule ordering

One feature of the two analyses which has not been given much attention is that of rule ordering. The 'restricted' mid tone analysis has the following tone rules formulated which are relevant to the question of rule ordering: the downdrift rule (98), the low tone raising rule (125), and the high tone deletion rule (126). The downdrift rule (98) has to be extrinsically ordered before the low tone raising rule (125); otherwise the 3pp of the hortative in (95a) and the nouns in (124d) would be incorrectly derived as \*á-gúdí 'they should sell' and \*é-tég 'village' or \*á-jéné 'strangers'. In order to derive these correctly as á-gúdí 'they should sell', and é-tég 'village' or á-jēnē 'strangers' the final low tone must be lowered to a mid or downstepped high before the low tone is raised. The low tone is crucial to conditioning the lowering of the final high. The high tone deletion rule (126) does not have to be extrinsically ordered in relation to (98) and (125). Instead, it is naturally feed by these two rules. Without the application of these two rules first, rule (126) would never apply.

The 'dynamic' DS analysis has the following rules which







morphological rule, forms like the following would result:

- (136) a.  ${}_5[s- \quad ti]_{5/6}$  'tree'  
           $\$- \quad \$$   
          L-H- H
- b.  ${}_9[N- \quad \check{c}id]_{9/14}$  'garden egg'  
           $\$- \quad \$$   
          L-H- H

A second morphological rule would then apply to delete the first tone in nouns of this shape, thus leaving only a high tone to associate with the prefix.

### 3.3.4.3 Replacive verb forms

Replacive tone processes are considered in this separate section because they are somewhat different from the morphologically conditioned rules considered in the above sections. Replacive tone rules are different because the surface tones are (at this point in time at least) generally not derivable either historically or eynchronically from what one would expect to be the underlying tones. They are also different because they commonly neutralize the distinction between the two lexical verb root tone classes.

Replacive tone processes involve the following moods and aspects: (repetitive) perfective, (repetitive) perfect, repetitive imperative, negative (repetitive) hortative, negative (repetitive) counter-factual conditional, (repetitive) cessative, dependent temporal, directional perfective, directional perfect, the 3pp of the constituent-focus perfective and the 3pp of the constituent-focus imperfective.

The replacive tone processes as rules apply before the rules specified above so that the above rules apply in all and only the correct cases.

The first replacive rule is specified in (137):

$$(137) \quad T(T) \rightarrow HL \left/ \begin{array}{l} \left. \begin{array}{l} (REP) PFV \\ (REP) PFT_{3ps} \\ NEG (REP) C-F COND \\ (REP) CESS_{3ps} \end{array} \right\} [T- \_\_\_\_\_\_] \\ \\ REP IMPER [ \_\_\_\_\_\_] \\ \\ \left. \begin{array}{l} NEG (REP) HORT \\ DIR PFV \\ DIR PFT_{3ps} \end{array} \right\} [T- \_\_\_\_\_\_ \_\_\_\_\_\_] \end{array} \right.$$

Rule (137) replaces the underlying tone or tones with the tone sequence HL. It does this in the case of the second morpheme of the (repetitive) perfective, the 3ps of the (repetitive) perfect, the negative (repetitive) counterfactual conditional, and the 3ps of the (repetitive) ceseative. It does this also in the case of the first morpheme of the repetitive imperative. Finally, it does so for both the second and third morphemes of the negative (repetitive) hortative, the directional perfective and the 3ps of the directional perfect. The following are examples of the application of rule (137):

$$(138) \quad a. \quad \begin{array}{ccc} PFV [a-gudi] & -(137) \rightarrow & [a-gudi] \quad \text{'he sold (it)'} \\ \begin{array}{c} \downarrow \quad \downarrow \quad \downarrow \\ \$- \$ \$ \\ L- L H \end{array} & & \begin{array}{c} \downarrow \quad \downarrow \quad \downarrow \\ \$- \$ \$ \\ L- H L \end{array} \end{array}$$





analysis which applies in the same case as (141b.i). It guarantees that the root tone for all verb roots will be specified as  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{XDS} \end{smallmatrix} \right]$  and that the suffix tone will be  $\left[ \begin{smallmatrix} +\text{high} \\ -\text{XDS} \end{smallmatrix} \right]$ .

Examples of their application are the following:

(142) a. C.Foc PFV<sub>3pp</sub>  $\left[ \begin{smallmatrix} a-\text{gud}(i)-i \\ \$- \$ (\$)-\$ \\ H- L H -'H \end{smallmatrix} \right] \rightarrow \left[ \begin{smallmatrix} a-\text{gud}(i)-i \\ \$- \$ (\$)-\$ \\ H- H -'H \end{smallmatrix} \right]$  'they sold (it)'

b. C.Foc IMPFV<sub>3pp</sub>  $\left[ \begin{smallmatrix} a-\text{gud}(i)-a \\ \$- \$ (\$)-\$ \\ H- L H -H \end{smallmatrix} \right] \rightarrow \left[ \begin{smallmatrix} a-\text{gud}(i)-a \\ \$- \$ (\$)-\$ \\ H- H -'H \end{smallmatrix} \right]$  'they sell (it)'

c. C.Foc IMPFV<sub>3pp</sub>  $\left[ \begin{smallmatrix} a-\text{gud}(i)-a \\ \$- \$ (\$)-\$ \\ H- L H -H \end{smallmatrix} \right] \rightarrow \left[ \begin{smallmatrix} a-\text{gud}(i)-a \\ \$- \$ (\$)-\$ \\ H- XH -H \end{smallmatrix} \right]$  'they sell (it)'

#### 3.3.4.4 The associative noun phrase

The associative noun phrase consists of two nouns which are associated by an intervening associative marker (AM). The AM is discussed in detail in 5.9. In this section the invariant form i is used and no cases where the segmental form of the AM is deleted are considered; see 3.3.4.6... instead for such cases.

There are essentially two tonal processes involving the





tone between two highs. The (a) utterances differ from the (b) utterances in that in the (a) utterances the low tone precedes a high tone associated with a CV syllable, while in the (b) utterances it precedes a high tone associated with a syllabic nasal N. Note that this raising process in the (b) utterances is a low level one, and it occurs only in normal speech---in deliberate speech the low tone remains.

In both analyses, the process occurring in the (b) utterances takes place after all tones have been associated with a syllable according to rule (96) and the Well Formedness Condition, after all contour simplification rules (see 3.3.4.5), and after the process of resyllabification (see 2.2.5). The resyllabification process changes the status of the syllabic nasal to that of a final consonant of a CVC syllable. The tone of the original syllabic nasal is reassociated with the syllabic segment which in the case of the (b) utterances means a rising contour is derived. However, this rising contour behaves differently from the rising contours which are simplified by the contour simplification rules. That is why the contour simplification rules must precede the resyllabification rules. This ordering prevents the derivation of unacceptable utterances. Finally, note that for the contour simplification rules to apply the association process must be complete. Therefore, both analyses assume the following ordering in order to account for the (b) forms: association, contour simplification, and resyllabification.

However, the two analyses do differ. In the 'restricted' mid tone analysis the downdrift rule (98) would have applied before any of the above mentioned processes. This rule would specify the high tone on the syllabic nasal as  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{mid} \end{smallmatrix} \right]$  when it follows a low tone. Then after the association, simplification and resyllabification processes, the low tone matrix of the derived rising contour would be deleted as specified in rule (146):

$$(146) \begin{array}{c} \$ \\ | \\ H \end{array} \begin{array}{c} \$ \\ / \backslash \\ L \quad 'H \end{array} \quad \dashrightarrow \quad \begin{array}{c} \$ \\ | \\ H \end{array} \quad \begin{array}{c} \$ \\ | \\ 'H \end{array} \quad \text{Exception!}^{37} \text{ not with } \widehat{L} \text{ 'H} \\ \text{in noun and verb roots}$$

In rule (146), 'H represents  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{mid} \end{smallmatrix} \right]$ . Consider the following

derivation:

$$(147) \begin{array}{c} [a-guri \quad \bar{n}-\check{c}iT] \\ | \quad | \quad | \quad | \quad | \\ \$ \quad \$ \quad \$ \quad \$ \quad \$ \\ | \quad | \quad | \quad | \quad | \\ L \quad H \quad L \quad 'H \quad H \end{array} \quad \text{-(resyll)} \rightarrow \begin{array}{c} [a-guri \quad \bar{n}-\check{c}iT] \\ | \quad | \quad | \quad | \quad | \\ \$ \quad \$ \quad \$ \quad \$ \quad \$ \\ | \quad | \quad | \quad | \quad | \\ L \quad H \quad L \quad 'H \quad H \end{array} \quad \text{-(146)} \rightarrow$$

$$\begin{array}{c} [a-guri \quad \bar{n}-\check{c}iT] \text{ 'he sold a garden egg'} \\ | \quad | \quad | \quad | \\ \$ \quad \$ \quad \$ \quad \$ \\ | \quad | \quad | \quad | \\ L \quad H \quad 'H \quad H \end{array}$$

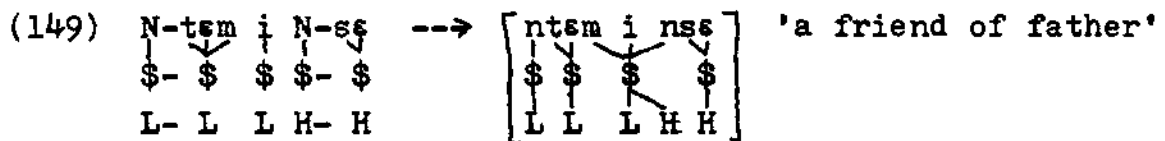
In the 'dynamic' DS analysis a rule like that specified in (148) would be needed after the association, simplification and resyllabification processes:

$$(148) \begin{array}{c} \$ \\ | \\ H \end{array} \begin{array}{c} \$ \\ / \backslash \\ L \quad H \end{array} \quad \dashrightarrow \quad \begin{array}{c} \$ \\ | \\ XH \end{array} \quad \begin{array}{c} \$ \\ | \\ H \end{array}$$

In rule (148), XH represents  $\left[ \begin{smallmatrix} +\text{high} \\ +\text{XDS} \end{smallmatrix} \right]$ . The derivation would be similar to that in (147) except that there would be no 'H tone specified and the initial high tone in the H L H

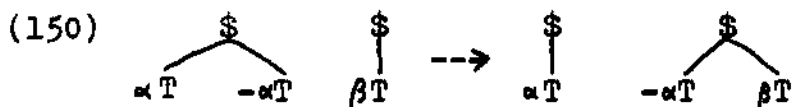
sequence would have the value of the feature [-XDS] changed to [+XDS].

Finally, note that in both (146) and (148) the initial high tone has to be specified, because it is part of the conditioning environment. If the tone were instead low, then the rising contour would remain as exemplified in (149):

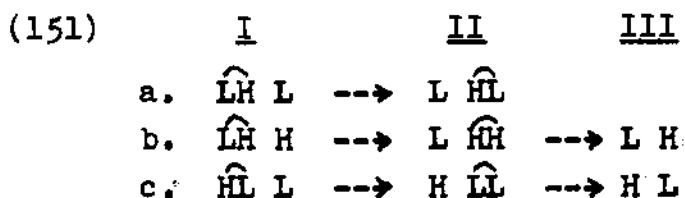


### 3.3.4.5 Contour simplification

Details about the simplification of contour tones are given in 3.2.1.5. In both analyses the simplification process involves the reassociation of the second tonal matrix in the contour. The matrix loses its association with one syllable but gains an association with the next syllable to the right of the syllable it was originally associated with. This rightward process of reassociation can be formalized with the following general rules in both analyses:



Rule (150) applies to the tone sequences in column I of (151) and changes them into the tone sequences in column II.



- d.  $\widehat{HL} H \rightarrow H \widehat{LH} \rightarrow H 'H$   
 e.  $\widehat{H'H} L \rightarrow H ' \widehat{HL} \rightarrow H L$   
 f.  $\widehat{H'H} H \rightarrow H ' \widehat{HH} \rightarrow H 'H$

Note that the product of rule (150) in (151a) is the final product. It does not undergo any further simplification. This fact indicates that rule (150) is non-iterative, applying only once. Note also that for there to be contour tones in column I the association rule (96) and the Well Formedness Condition would already have had to apply. It is only after the tonal matrices have been associated with the syllabic matrices that the contours are technically specified in terms of the theory. Therefore, rule (150) applies after the association process is complete, but before the resyllabification process, as noted in 3.3.4.4.

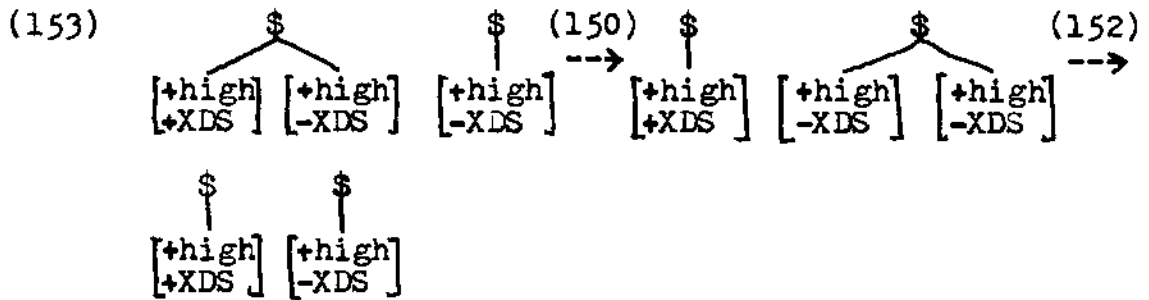
Apart from the tone sequence in (151a), all of the tone sequences have to undergo some further process after the application of rule (150) in order to take their final forms in column III of (151). In the cases where similar tones are associated with the same syllabic matrix in column II, a general tonal convention would apply:

$$(152) \quad \begin{array}{c} \$ \\ \swarrow \quad \searrow \\ \alpha T \quad \alpha T \end{array} \quad \rightarrow \quad \begin{array}{c} \$ \\ | \\ \alpha T \end{array}$$

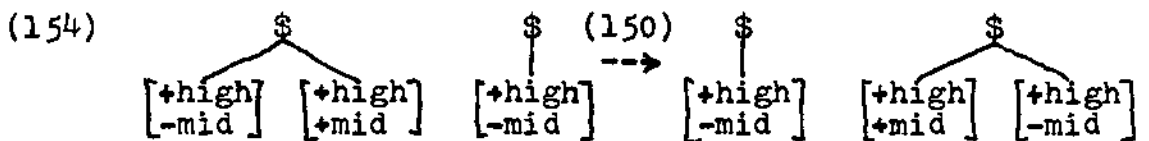
This convention states that two like tones associated with the same syllable are reduced to only one such tone.

In the case of both the 'restricted' mid tone analysis and the 'dynamic' DS analysis, the convention in (152) would account for the results in column III in both (151b) and

(151c). In addition, convention (152) accounts for the result in column III in (151f) in the 'dynamic' DS analysis. In this analysis, (151f) appears as follows in terms of features:

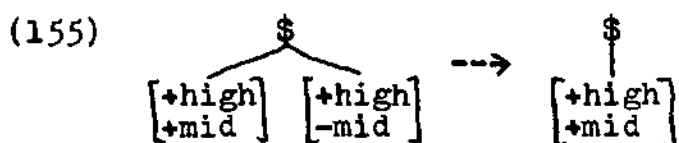


After the application of (150) in (153) two tones which are identical in terms of tone features are associated with the same syllable. They reduce according to (152) to just one occurrence of that tone. However, convention (152) does not account for the final result in column III in (151f) in the 'restricted' mid tone analysis (or 'static' DS analysis for that matter). The reason for this is that the tone features do not permit identity in terms of (152) of the two tones associated with one syllable in column II. Consider the following feature specification of (151f) in terms of this analysis:



Note that after the application of (150) two dissimilar tones in terms of features are now associated with the same syllable. Even if the feature [ $\pm$ DS] were used in place of the feature [ $\pm$ mid] the result would be the same. Therefore, in order to

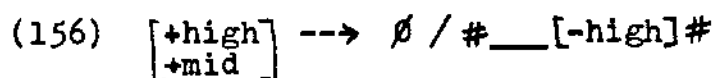
account for the result in column III of (151f) in this analysis, the following additional convention is needed:



This convention is necessary only because of the conception of DS as the state of a tone and the specification of this state with a 'static' feature such as [ $\pm$ mid] or [ $\pm$ DS].

Thus, the results in column III of (151d) and (151e) only remain to be accounted for. In the 'restricted' mid tone analysis column III of (151d) is accounted for by rule (150) and by rule (146) which was presented in 3.3.4.4. Rule (146) applies after resyllabification has occurred, simplifying rising contours which remain at this lowest level to 'H if they follow a high tone. In the 'dynamic' DS analysis column III of (151d) is accounted for by rule (150) and by rule (148) which is equivalent to rule (146) in the other analysis.

Finally, column III of (151e) is accounted for in the 'restricted' mid tone analysis by the application of rule (150) and the application of rule (156) which is a revision of rule (126). It covers the facts involved in both (126) concerning L-H L nouns and (151e):



Rule (156) states that the language does not tolerate a ML (i.e. 'HL) contour or even a M L (i.e. 'H L) sequence within a morpheme, and so simplifies it to a low tone.

In the 'dynamic' DS analysis column III of (151e) is accounted for by the application of rule (150) and the application of rule (157) which is a revision of rule (130). It covers the facts involved both in (130) concerning L-H L nouns and in (151e):

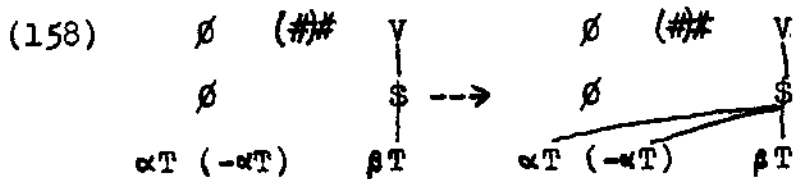
(157)  $\begin{bmatrix} +\text{high} \\ -\text{XDS} \end{bmatrix} \rightarrow \emptyset / \begin{bmatrix} +\text{high} \\ +\text{XDS} \end{bmatrix} \#(\#) \_\_\_ [-\text{high}] \#(\#)$

Rule (157) states that the sequence H L within a morpheme is simplified to a low tone if the preceding tone is [+XDS], whether this preceding tone is across a morpheme or word boundary. Thus, in both analyses the simplification of contours in (151e) involve rules which account for facts independent of contour simplification. Rules (156) and (157) apply both after the rule which raises low tone noun prefixes (which is before the association process) and after rule (150) which simplifies contours (which is after the association process).

### 3.3.4.6 Tone processes and vowel deletion

There are three significant contexts in which vowels are deleted. First, the second vowel of -CV(C)V roots are deleted when they precede a vowel. Secondly, the a vowel of -Ca roots is deleted before ɛ, a and ɔ. (See 3.1.3.1 for discussion of these first two processes.) Thirdly, the associative marker is deleted when it precedes a noun with a vowel prefix (see 5.9).

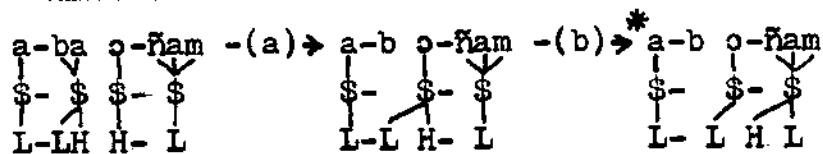
These processes of vowel deletion in relation to tone can be generalized on according to the following schema:



The null symbols '∅' indicate the deleted vowel and syllable matrices. The schema assumes that association has already occurred between tones and syllables. Such an assumption is not necessary in the case of each individual deletion process, but in order to generalize on all three it is necessary<sup>38</sup>. The schema states that tone(s) left unassociated by the deletion processes are reassocated with the first syllable to the right.

In order for the deletion processes and schema (158) to produce the correct results, they must apply not only after the association process but also after the contour simplification rule (150) and before the resyllabification process (see 2.2.5). Consider the following ill-formed utterances in which deletion has occurred before the contour simplification process:

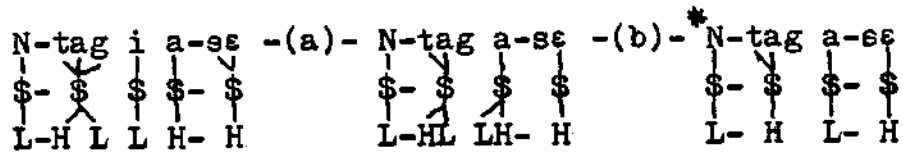
(159) a. -Ca roots



'he should butcher the animals'

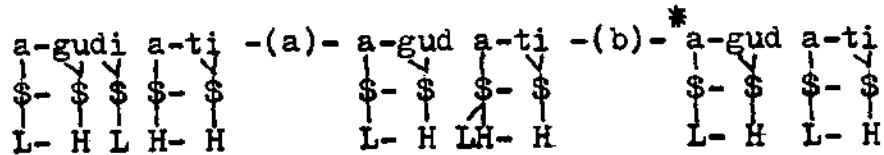


b. AM



'the sack of the fathers'

c. -CV(C)V roots

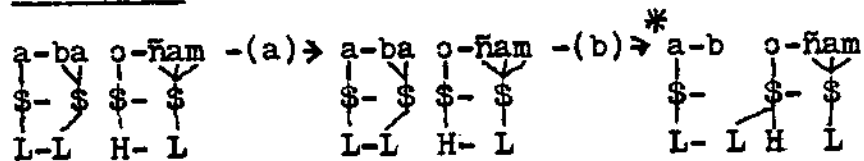


'he sold trees'

In (159) the (a) indicates the application of the deletion process, the schema in (158) and the tone convention in (152). The (b) indicates the application of the contour simplification rule (150) and the tone convention (152). In each case in (159), the ordering of the deletion process before the contour simplification process leads to incorrect forms.

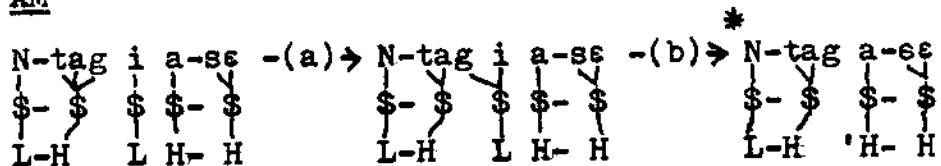
Now consider the following ill-formed utterances in which deletion has occurred after resyllabification:

(160) a. -Ca roots



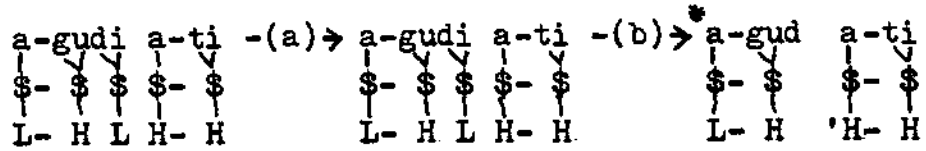
'hs should butcher the animals'

b. AM



'ths sack of ths fathers'

c. -CV(C)V roots



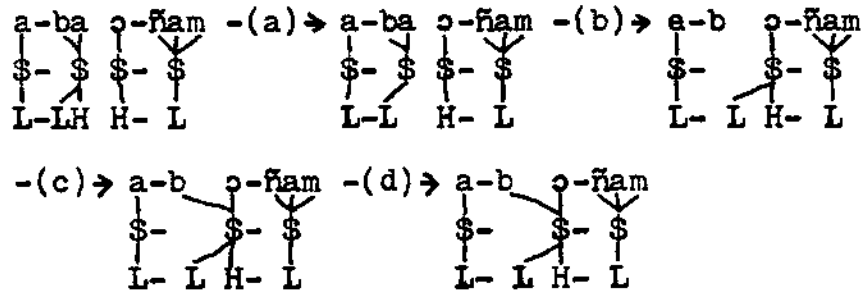
'he sold trees'

In (160) the initial form in each derivation has already had the contour simplification rule applied to it. Thus, the rising contour on -bǎ in (160a) has already been simplified as has the falling contour on -tǎg in (160b). The (a) in each derivation in (160) indicates the application of the resyllabification process. In the case of (160a) and (160c) it has applied vacuously, but in (160b) it has reassigned the velar to the following syllable. The (b) in each derivation indicates the application of the deletion process, the schema (158), the tone convention (152) and the rules (146) or (148), depending on the analysis being used. In each derivation the correct tone is derived unlike the derivations in (159), but in each derivation a consonant is left unassociated with a syllabic matrix. In the derivations in (159) these same consonants are also unassociated, but in those derivations the resyllabification process has not yet applied. Thus, if the deletion process applies before the contour simplification process, the incorrect surface tones are derived. If the deletion process applies after the resyllabification process, the incorrect syllabifications are derived.

If the deletion process follows contour simplification

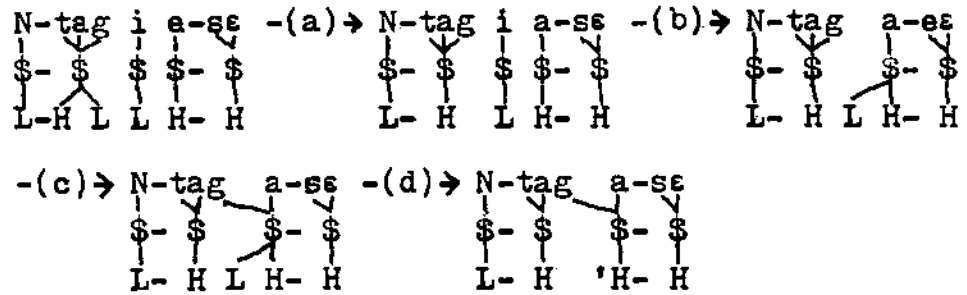
and precedee resyllabification, the following correct utterances are derived:

(161) a. -Ca roots



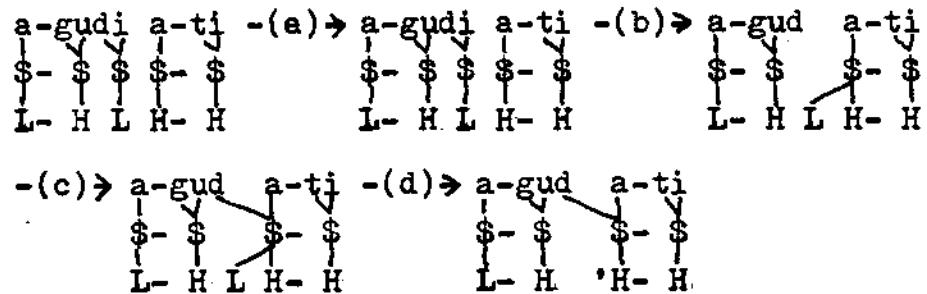
'he should butcher the animals'

b. AM



'the sack of the fathers'

c. -CV(C)V roots



'he sold trees'

The application of the following processes occur in (161):

(a) contour simplification, (b) deletion, (c) resyllabification, and (d) rule (146) or (148), depending on the analysis

being used. When the contour simplification applies, the tone convention (152) also applies; and when the deletion process applies, the schema in (158) also applies. Note that (161c) does not have a contour to be simplified, and (161a) does not have rules (146) or (148) apply to it. Thus, the schema in (158) in conjunction with rule ordering accounts for tone in relation to the deletion processes in the language. This is true in the case of both analyses.

### 3.3.4.7 The assignment of pitch values

The final process to be discussed is the assignment of the phonetic pitch values to a given utterance in order to derive an idealized phonetic representation of the tonal contour. The first set of rules establish the pitch level of the first tone in the utterance. Note that in both analyses the feature [+high] classifies two tones. In the case of the 'restricted' mid tone analysis the two tones are [+high] and [+high]. In the case of the 'dynamic' DS analysis the two tones are [+high] and [+high]. These first rules are specified in (162):

- (162) a. [+high] --> [+high]<sub>1</sub> / !!\_\_  
 b. [-high] --> [-high]<sub>4</sub> / !!\_\_

Rule (162a) states that a [+high] tone is assigned the integer '1' when it occurs utterance initially, and rule (162b) states that a [-high] tone is assigned the integer '4' in

the same environment. The convention adopted here is that the smaller the integer, the higher the pitch.

Once the initial tone of an utterance has been assigned a pitch value, the following rules would apply in the remainder of the utterance. The rules given in (163) are for the 'restricted' mid tone analysis, and those in (164) are for the 'dynamic' DS analysis. The rules are essentially identical except that different tone features have to be specified to accommodate the different analyses.

- (163) a.  $\begin{bmatrix} +\text{high} \\ -\text{mid} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{high} \\ -\text{mid} \end{bmatrix}_{\alpha p} / [+high]_{\alpha p} \text{ ---}$
- b.  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}_{p+1} / [+high]_p \text{ ---}$
- $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}_{p-2} / [-high]_p \text{ ---}$
- c.  $[-high] \rightarrow [-high]_{p+3} / [+high]_p \text{ ---}$
- $[-high]_{p+1} / [-high]_p \text{ ---} ([-high])_n !!!$
- $[-high]_p / [-high]_p \text{ ---}$
- (164) a.  $[+high] \rightarrow [+high]_{\alpha p} / \begin{bmatrix} +\text{high} \\ -\text{XDS} \end{bmatrix}_{\alpha p} \text{ ---}$
- $[+high]_{p+1} / \begin{bmatrix} +\text{high} \\ +\text{XDS} \end{bmatrix}_p \text{ ---}$
- $[+high]_{p-2} / [-high]_p \text{ ---}$
- b.  $[-high] \rightarrow [-high]_{p+3} / [+high]_p \text{ ---}$
- $[-high]_{p+1} / [-high]_p \text{ ---} ([-high])_n !!!$
- $[-high]_p / [-high]_p \text{ ---}$

Note that rules (163a) and (163b) are nearly identical to rule (164a), and rule (163c) is identical to rule (164b). In order to clarify what these rules do, those in (163) will be used. Rule (163a) states that a  $\begin{bmatrix} +\text{high} \\ -\text{mid} \end{bmatrix}$  tone will have the identical pitch value to any  $[\text{+high}]$  tone which immediately precedes it. Rule (163b) states that a  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  tone will be one pitch level lower (i.e. have an integer one greater) than the preceding  $[\text{+high}]$  tone. It also states that a  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  tone will be two pitch levels higher (i.e. have an integer two less) than an immediately preceding  $[-\text{high}]$  tone. It is this part of rule (163b) which accounts for the process of downdrift in a phonetic sense, and it is parallel to the third environment in rule (164a). The difference between the two analyses at this point is that the 'dynamic' DS analysis accounts for downdrift only at this point in the derivation from underlying tones to phonetic pitch levels, whereas the 'restricted' mid tone analysis has to account for it twice: once as deep level rule and then here in the phonetic pitch level rules.

Rule (163c) states that a low tone will be three pitch levels lower (i.e. have an integer which is three greater) than an immediately preceding  $[\text{+high}]$  tone. However, when it immediately follows another  $[-\text{high}]$  tone, a disjunctive rule applies. The first states that if the  $[-\text{high}]$  tone is one of a series of  $[-\text{high}]$  tones in utterance final position,

then the [-high] tone will be slightly lower in pitch than the preceding [-high] tone (i.e. have an integer of one value greater than the preceding low). If this environment does not apply, then the [-high] tone is given the same pitch value as the [-high] which immediately precedes it.

Consider the following examples. Note that these rules apply successively from left to right.

- (165) a.  $\acute{\epsilon}$ -fàné N-gúd(i) ó-číd
- |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
|    |    |    |    |    |    |    |    |
| H- | L  | H  | L  | H  | 'H | H  |    |
- 
- |   |   |   |   |   |   |   |  |  |                    |
|---|---|---|---|---|---|---|--|--|--------------------|
| 1 |   |   |   |   |   |   |  |  | Rule (162a)        |
| 1 | 4 |   |   |   |   |   |  |  | Rule (163c)/(164b) |
| 1 | 4 | 2 |   |   |   |   |  |  | Rule (163b)/(164a) |
| 1 | 4 | 2 | 5 |   |   |   |  |  | Rule (163c)/(164b) |
| 1 | 4 | 2 | 5 | 3 |   |   |  |  | Rule (163b)/(164a) |
| 1 | 4 | 2 | 5 | 3 | 4 |   |  |  | Rule (163b)/(164a) |
| 1 | 4 | 2 | 5 | 3 | 4 | 4 |  |  | Rule (163a)/(164a) |
- [ε fiane ŋ gur o čiT] 'yesterday I sold garden eggs'
- [1 4 2 5 3 4 4]
- 
- b. N-món à-bá ná N-tém à
- |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
|    |    |    |    |    |    |    |    |
| L- | L  | HL | HL | L  | L- | L  | L  |
- 
- |   |   |   |   |   |   |   |   |   |                    |                    |
|---|---|---|---|---|---|---|---|---|--------------------|--------------------|
| 4 |   |   |   |   |   |   |   |   | Rule (162b)        |                    |
| 4 | 4 |   |   |   |   |   |   |   | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 |   |   |   |   |   |   | Rule (163b)/(164a) |                    |
| 4 | 4 | 2 | 5 |   |   |   |   |   | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 | 5 | 3 |   |   |   |   | Rule (163b)/(164a) |                    |
| 4 | 4 | 2 | 5 | 3 | 6 |   |   |   | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 | 5 | 3 | 6 | 7 |   |   | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 | 5 | 3 | 6 | 7 | 8 |   | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 | 5 | 3 | 6 | 7 | 8 | 9 | Rule (163c)/(164b) |                    |
| 4 | 4 | 2 | 5 | 3 | 6 | 7 | 8 | 9 | 10                 | Rule (163c)/(164b) |
- [m mon a Ba na n tem a] 'did (our) child come with a friend?'
- [4 4 25 36 7 8 9 10]

The resulting tone contours of the utterance in (165) are idealized, abstracted patterns of the actual speech continuum.

It is not claimed, for example, that in the actual speech continuum there are nine distinct pitch levels in the utterance in (165b). However, it is claimed, as well as demonstrated by the derivations in (165) and the form of the rules in (163) and (164), that pitch levels in Ejagham are relative and theoretically infinite in number, and that every utterance in the language is characterized by a general downdrift of the tonal contour throughout the duration of the speech continuum. Thus, a high tone at the end of an utterance as in (165a) may be significantly lower than the initial high tone in the utterance and in fact may be at the same (or even lower) level than the initial low tone in the utterance.

#### 3.3.4.8 Conclusion

In this section the various tonal processes in the language have been formally described. In addition, the most simple and general description possible has been sought by comparing two different analyses of the tonal phenomenon. One analysis used the feature [ $\pm$ mid] which conceptually is equivalent to the 'static' notion of DS. The other analysis used the new feature [ $\pm$ XDS] in order to formalize the competing notion of DS as 'dynamic'. The difference between these two notions of DS is that in 'static' DS the high tone which is downstepped has its "downsteppedness" specified within its feature matrix, but in 'dynamic' DS the high tone



which is downstepped has its "downsteppedness" specified (i.e. controlled) by the preceding tonal matrix. Another way to contrast the two notions is in relation to the notion of the 'floating' low tone. In the static 'DS' notion the floating low tone has been formally incorporated into the downstepped high tone by means of the feature [ $\neq$ mid] or [ $\neq$ DS]. In the 'dynamic' notion the floating low tone has been formally incorporated into the high tone which precedes the downstepped high by means of the feature [ $\neq$ XDS].

Clearly both analyses have to account for the more general and the more idiosyncratic processes in the language, and so from an overall viewpoint there may appear to be little difference between the two analyses. The overall ordering of the tonal processes and various individual rules are identical in the two analyses. Both account for some processes as 'Pre-Association Processes' and others as 'Post-Association Processes'. In both analyses various morphological and morphophonological processes, including low tone raising and high tone deletion, are accounted for as 'Pre-Association Processes'. And in both analyses contour simplification, vowel deletion and its relation to tone, and resyllabification and its related tonal processes are accounted for as 'Post-Association Processes'. (See the Appendix (Part A) for a detailed summary of the rules and their ordering in both analyses.)

However, a closer look at details indicates that the

analysis using the 'dynamic' DS notion is the simpler and preferred analysis. First, the 'restricted' mid tone analysis (i.e. the 'static' DS analysis) requires a complex morphological rule (117) in order to account for various contexts in which -H tone verb roots are downstepped highs. In the 'dynamic' DS analysis such a rule is not necessary since each of these occurrences of downstep are accounted for lexically with the feature [+XDS]. Secondly, the 'restricted' mid tone analysis requires a downdrift rule (98) which guarantees that every [+high] tone will be  $\begin{bmatrix} +high \\ +mid \end{bmatrix}$  when preceded by a [-high] tone. This rule is necessary to account for certain verbal and nominal forms in which a high tone becomes downstepped when a preceding low tone is raised to high. In the 'dynamic' DS analysis this downdrift rule is unnecessary because the downstepped high in these cases is accounted for by the raised low tone which not only becomes [+high] but also [+XDS]. Thirdly, the low tone raising rule (125) in the 'restricted' mid tone analysis is significantly more complex than the low tone raising rule (128) in the 'dynamic' DS analysis. The reason for this difference is that the 'dynamic' DS analysis can exploit the fact that low tones are raised only after high tones which are also [-XDS]. The fact that [+XDS] tones not only downstep a following high tone but also keep a following low tone low allows the low tone raising rule to be written in a much simpler and more general form in the 'dynamic' DS analysis.

Besides these three major differences between the two analyses, there are two minor ones. First, the 'restricted' mid tone analysis requires the tonal convention (155) which specifies that a  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  tone and a  $\begin{bmatrix} +\text{high} \\ -\text{mid} \end{bmatrix}$  tone which are associated with the same syllable reduce to a  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  tone. This convention is necessary in this analysis because of the 'static' notion of DS which underlies it. In the 'dynamic' DS analysis there is never any need for such a convention. Secondly, the one rule which the 'dynamic' DS analysis requires but the 'restricted' mid tone analysis does not is rule (110). This minor morphological rule guarantees that the constituent-focus perfective suffix is downstepped following the final high tone of verb roots. This same fact is handled lexically in the 'restricted' mid tone analysis. However, both of these minor differences are insignificant in comparing the two analyses. The major differences listed above are more crucial.

In addition to the major differences noted above, the 'dynamic' DS analysis has two additional features which make it more satisfying than the 'restricted' mid tone or 'static' DS analysis. First, if Ejagham historically had high and low tones in conjunction with a phonetic (i.e. predictable) downdrift process, the 'dynamic' DS analysis claims that synchronically the language still has the same tonal features but that the downdrift process has been incorporated into

various non-phonetic levels of the language in the form of downstep. It is found in the lexicon, especially in the case of various verbal prefixes; it is introduced by morphological rule (e.g. (110)); it is introduced by morphophonological rule (e.g. the low tone raising rule (128)); and it is introduced by phonological processes such as contour simplification and resyllabification. Of course, in addition to having been incorporated in these ways, downdrift still remains in most cases as simple downdrift, a fact captured by pitch assignment rule (164a).

The 'restricted' mid tone analysis makes a similar claim, but in a much less satisfying manner. This analysis posits practically nothing in the way of lexical DS, using instead a complex morphological rule to incorporate DS in these forms. However, it seems more likely that speakers of the language learn DS in these forms as a lexical function rather than as a function of a morphological rule. Besides this failure to incorporate more lexical DS, this analysis also has in essence two downdrift rules. One is a deep level phonological rule (98) while the other is a phonetic pitch value assignment rule (163b). The two rules accomplish the same result, but the first is required to make the analysis "work" even though it probably does not reflect any real incorporation of downdrift as a deep level phenomenon. Downdrift in the language as a general process still seems best treated as a phonetic phenomenon and not both a phonological and phonetic

one at one and the same time.

The second more satisfying feature of the 'dynamic' DS analysis in relation to the 'restricted' mid tone analysis involves the role that the features other than [+high] play in the rules. The feature [+mid] in the 'restricted' mid tone analysis (or [+DS] in the 'static' DS analysis) do not play any role in conditioning the application of a rule. By contrast, the feature [+XDS] in the 'dynamic' DS analysis plays a significant role in the low tone raising rule (128); namely, it is specifically the high tones which are [-XDS] which permit a following low tone to become a high tone. High tones which are [+XDS] do not permit such a raising process with following low tones.

### 3.3.5 Summary

In this lengthy discussion on the representation of tone and tonal processes in Ejagham, the following points have been made. First, it was argued that tonal contours should be considered as a sequence of two level tones in the phonological representation. This argument was supported by evidence from the distribution of tone on nouns and verbs, and from the nature of certain tonal processes.

Secondly, it was argued that 'downstepped high' could be analyzed as a mid tone in terms of features. Such an analysis made it possible to maintain a more constrained phonological theory than would otherwise be possible. It was pointed out

that such a mid tone still had certain characteristics which distinguished it from the unrestricted mid tone found in languages like Yoruba. But it was further pointed out that this debate between using the feature [ $\pm$ mid] or [ $\pm$ DS] was based on the notion of DS as a 'static' phenomenon which meant that it should be specified with a feature within the matrix of the downstepped high tone. But DS could also be conceived as a 'dynamic' phenomenon in which a feature [ $\pm$ XDS] would be used in the tonal matrix preceding the downstepped high, with [ $\pm$ XDS] meaning that the following high would be downstepped.

Thirdly, it was noted that tone has been represented both as a segmental phenomenon and as a suprasegmental phenomenon. It was noted that the facts about tone do not require one form of representation or another, but arguments were given which favor the use of a suprasegmental representation to a segmental one.

Fourthly, the tonal processes in the language were formally described within a suprasegmental framework. Various constraints were placed on the theory which was used in the description. The tonal processes involved verbs, nouns, the associative noun phrase, the simplification of tonal contours, tonal processes under vowel deletion, and pitch assignment. Two different analyses were used, and the one using the 'dynamic' notion of DS was found to provide a simpler and more satisfactory account of the processes involved.

## APPENDIX

This appendix consists of two parts. Part A is a review of the tone rules and their ordering as presented within the framework of the two different analyses in section 3.3.4. Part B is a listing of all the affixed, non-periphrastic verb forms with both their surface tones and their underlying tones.

### Part A

In this part the tone rules of both analyses in 3.3.4 are given in their suggested orderings. The actual rule is not specified here. Instead, they are referred to by their rule number, and the actual form of the rule can be found in section 3.3.4.

### The 'restricted' mid tone analysis

#### Pre-Phonetic Processes

#### Pre-Association Processes

##### I. Morphological rules

- Downstep rule (117)
- Imperative low tone insertion rule (121)
- HL replacive tone rule (137)
- L replacive tone rule (139)
- Constituent-focus perfective rule (141a)
- Constituent-focus imperfective rule (141b.i)

(Note: 1) these rules not ordered in relation to one another,  
2) the morphological rules as a set must be ordered before the 'primary' tone rules.)

##### II. Primary tone rules

- Downdrift (98)
- Low tone raising rule (125)
- High tone deletion rule (156)

- (note: 1) rule (98) is extrinsically ordered before rule (125),  
 2) both rule (98) and rule (125) are intrinsically ordered before rule (156),  
 3) the 'primary' tone rules as a set must be ordered before the association process.)

#### Association Process

Association rule (96)  
 (Well Formedness Condition)

(Note: association rule (96) ordered before contour simplification so that contours are technically identified.)

#### Post-Association Processes

##### I. Contour simplification

Contour simplification rule (150)  
 Tonal convention (152)  
 Tonal convention (155)  
 High tone deletion (156)

- (Note: 1) rule (156) also applied as a 'primary' tone rule,  
 2) these two rules and two conventions intrinsically ordered in relation to one another, and  
 3) contour simplification ordered extrinsically before vowel deletion.)

##### II. Vowel deletion process

Tone reassociation schema (158)

(Note: schema (158) ordered extrinsically before the resyllabification process.)

##### III. Resyllabification process

Resyllabification (see footnote 39, chapter 3)  
 LH simplification as 'H (146)

#### Phonetic Processes

Pitch value assignment rule (162)  
 Pitch value assignment rule (163)

(Note: these two rules intrinsically ordered in relation to one another.)



## The 'dynamic' DS analysis

### Pre-Phonetic Processes

#### Pre-Association Processes

##### I. Morphological rules

Imperative low tone insertion rule (121)  
HL replacive tone rule (137)  
L replacive tone rule (139)  
Constituent-focus perfective rules (110, 141a)  
Constituent-focus imperfective rule (141b.ii)

- (Note: 1) these rules not ordered in relation to one another, and  
2) the morphological rules as a set must be ordered before the 'primary' tone rules.)

##### II. Primary tone rules

Low tone raising rule (128)  
High tone deletion rule (157)

- (Note: 1) these two rules intrinsically ordered in relation to each other, and  
2) the 'primary' tone rules as a set extrinsically ordered before the association process.)

#### Association Process

Association rule (96)  
(Well Formedness Condition)

- (Note: association rule (96) ordered extrinsically before contour simplification so that contours are technically identified.)

#### Post-Association Processes

##### I. Contour simplification

Contour simplification rule (150)  
Tonal convention (152)  
High tone deletion (157)

- (Note: 1) rule (157) also applied as a 'primary' tone rule,  
2) these two rules and one convention are intrinsically ordered in relation to one another, and  
3) contour simplification ordered extrinsically before vowel deletion.)

## II. Vowel deletion process

Tone reassociation schema (158)

(Note: schema (158) ordered extrinsically before the resyllabification process.)

## III. Resyllabification process

Resyllabification (see footnote 39, chapter 3)  
LH simplification as 'H (148)

## Phonetic Processes

Pitch value assignment rule (162)

Pitch value assignment rule (164)

(Note: these two rules intrinsically ordered in relation to one another.)

## Part B

In this part of the appendix all of the affixed, non-periphrastic verb forms are listed with both their surface tones and their underlying tones. The underlying tones are given for both analyses: the rows indicated as MID give the underlying tones for the 'restricted' mid tone analysis, and the rows marked XDS give the underlying tones for the 'dynamic' DS analysis.

The symbols used for the underlying tones are H, L, 'H and XH. The symbol H represents either  $\begin{bmatrix} +\text{high} \\ -\text{mid} \end{bmatrix}$  or  $\begin{bmatrix} +\text{high} \\ -\text{XDS} \end{bmatrix}$ , depending on the analysis. The symbol L represents  $[-\text{high}]$  in both analyses. The symbol 'H represents  $\begin{bmatrix} +\text{high} \\ +\text{mid} \end{bmatrix}$  in the 'restricted' mid tone analysis. The symbol XH represents  $\begin{bmatrix} +\text{high} \\ +\text{XDS} \end{bmatrix}$  in the 'dynamic' DS analysis.

Tones are given only for 3ps and 3pp. The first and second persons are identical in a given paradigm to either the form of the 3ps or the 3pp. The form which is identical to these other persons is indicated by '(1,2)' before the specification '3ps' or '3pp'.

The symbol  $\textcircled{r}$  below a tone means that that underlying tone is a replacive tone. In such a case the underlying or replacive tone will be identical in both analysiss. Two -CVCV verb roots, representing the two tone classes, are given in each form. The two roots are -ràbè 'to open' from the -LH tone verb class and -rébé 'to lick' from the -H tone verb class.

I. Non-repetitive, non-negative

Perfective

Auxiliary-focus

(1,2) 3ps	à-rábè	à-rábè
MID=XDS	L- <u>H L</u>	L- <u>H L</u>
	$\textcircled{r}$	$\textcircled{r}$
	'he opened'	'he licked'
3pp	á-rábè	á-rábè
	H- <u>H L</u>	H- <u>H L</u>
	$\textcircled{r}$	$\textcircled{r}$
	'they opened'	'they licked'

Constituent-focus

(1,2) 3ps	à-ràb(ε)-é'	à-ráb(ε)-é'
MID	L- L H -'H	L- H -'H
XDS	L- L H -H	L- H -H
	'she opened'	'she licked'
3pp	á-ráb(ε)-é'	á-ráb(ε)-é'
MID	H- H -'H	H- H -'H
XDS	H- <u>XH</u> -H	H- <u>XH</u> -H
	$\textcircled{r}$	$\textcircled{r}$

'they opsned'

'they licked'

Impsrfective

Auxiliary-focus: Continuous

(1,2)	3ps	à-kí-rèbé	à-kí-rábé
MID		L- H- L H	L- H- H
XDS		L-XH- L H	L-XH- H
		'he is opening'	'he is licking'
	3pp	á-kí-rèbé	á-kí-rábé
MID		H- H- L H	H- H- H
XDS		H-XH- L H	H-XH- H
		'they are opening'	'they are licking'

Auxiliary-focus: habitual

(1,2)	3ps	à-rèb(ε)-á	à-ráb(ε)-á
MID=XDS		L- L H -H	L- H -H
		'she opens'	'she licks'
	3pp	á-rèb(ε)-á	á-ráb(ε)-á
MID		H- L H -H	H- H -H
XDS		XH- L H -H	XH- H -H
		'they open'	'they lick'

Constituent-focus

(1,2)	3ps	á-rèb(ε)-á	á-ráb(ε)-á
MID		H- L H -H	H- H -H
XDS		XH- L H -H	XH- H -H
		'he opens/is opening'	'he licks/is licking'
	3pp	á-ráb(ε)-á	á-ráb(ε)-á
MID		H- H -'H	H- H -'H
XDS		H- XH -H	H- XH -H
		'they open/are opening'	'they lick/are licking'

Perfect

	3ps	à-rábè	à-rábè
MID=XDS		L- <u>H L</u>	L- <u>H L</u>
		'she has opened'	'she has licksd'

(1,2)	3pp	á-rèbè	á-rèbè
MID=XDS		H- <u>L</u>	H- <u>L</u>
		Ⓟ	Ⓟ
		'they have opened'	'they have licked'

Conditional

(1,2)	3p	á-rèbè	á-rébé
MID		H- L H	H- H
XDS		XH- L H	XH- H
		'if he/they open'	'if he/they lick'

Hortative

	3ps	à-rèbè	à-rébé
MID=XDS		L- L H	L- H
		'she should open'	'she should lick'
(1,2)	3pp	á-rébé	á-rébé
MID=XDS		H- L H	H- H
		'they should open'	'they should lick'

Imperative

	2p	rèbè	rébé
MID=XDS		L H	H
		'open!'	'lick!'

II. Repetitive, non-negative

Perfective

(1,2)	3ps	à-kpò-rèbè	à-kpò-rébé
MID=XDS		L- <u>HL</u> - L H	L- <u>HL</u> - H
		Ⓟ	Ⓟ
		'he opened again'	'he licked again'
	3pp	á-kpò-rèbè	á-kpò-rébé
MID=XDS		H- <u>HL</u> - L H	H- <u>HL</u> - H
		Ⓟ	Ⓟ
		'the opened again'	'they licked again'

Imperfective

Continuous

(1,2)	3ps	à-kí'-kpó-ràb'é	à-kí'-kpó'-réb'é
MID		L- H- H- L H	L- H- H- H
XDS		L-XH- XH- L H	L-XH- XH- H
		'she is opening again'	'she is licking again'
	3pp	á-kí'-kpó-ràb'é	á-kí'-kpó'-réb'é
MID		H- H- H- L H	H- H- H- H
XDS		H-XH- XH- L H	H-XH- XH- H
		'they are opening again'	'they are licking again'

Perfect

	3ps	à-kpó-ràb'é	à-kpó-r'éb'é
MID=XDS		L- <u>HL</u> - L H Ⓢ	L- <u>HL</u> - H Ⓢ
		'he has opened again'	'he has licked again'
(1,2)	3pp	á-kpó-ràb'é	á-kpó-r'éb'é
MID=XDS		H- <u>L</u> - L H Ⓢ	H- <u>L</u> - H Ⓢ
		'they have opened again'	'they have licked again'

Conditional

(1,2)	3p	á'-kpó-ràb'é	á'-kpó'-réb'é
MID		H- H- L H	H- H- H
XDS		XH- XH- L H	XH- XH- H
		'if she/they open again'	'if she/they lick again'

Hortative

	3ps	à-kpó-ràb'é	à-kpó'-réb'é
MID		L- H- L H	L- H- H
XDS		L- XH- L H	L- XH- H
		'he should open again'	'he should lick again'

(1,2)	3pp	á-kpó-rèbé	á-kpó-rébé
MID		H- H- L H	H- H- H
XDS		H- XH- L H	H- XH- H
		'they should open again'	'they should lick again'

Imperative

	2p	kpó-rèbé	kpó-rébé
MID=XDS		<u>HL</u> - L H (P)	<u>HL</u> - H (P)
		'open again!'	'open again!'

Dependent temporal

(1,2)	3ps	à-kpò-rèbé	à-kpò-rébé
MID=XDS		L- <u>L</u> - L H (P)	L- <u>L</u> - H (P)
		'when she had opened'	'when she had licked'

	3pp	á-kpó-rèbé	á-kpó-rébé
MID		H- H- L H	H- H- H
XDS		H- XH- L H	H- XH- H
		'when they had opened'	'when they had licked'

III. Non-repetitive, negative

General (Perfective/Perfect)

(1,2)	3ps	á-kà-rèbé	á-kà-rébé
MID=XDS		H- L- L H	H- L- H
		'he did not/has not opened'	'he did not/has not licked'
	3pp	á-ká-rèbé	á-ká-rébé
MID		H- H- L H	H- H- H
XDS		H-XH- L H	H-XH- H
		'they did not/ have not opened'	'they did not/ have not opened'

Imperfective

(1,2)	3p	á-bó-ràbbé	é-bó-rébbé
MID		H- H- L H	H- H- H
XDS		H-XH- L H	H-XH- H
		'he is/they are not opening; he does/they do not open.'	'he is/they are not licking; he does/they do not lick'

Cessative

	3ps	à-rô-ràbbé	à-rô-rébbé
MID=XDS		L- <u>HL</u> - L H Ⓡ	L- <u>HL</u> - H Ⓡ
		'she no longer opens'	'she no longer licks'
(1,2)	3pp	á-rò-ràbbé	á-rò-rébbé
MID=XDS		H- <u>L</u> - L H Ⓡ	H- <u>L</u> - H Ⓡ
		'they no longer open'	'they no longer lick'

Conditional

Simple

(1,2)	3p	á-ró-ràbbé	á-ró-rébbé
MID		H- H- L H	H- H- H
XDS		XH-XH- L H	XH-XH- H
		'if he does/ they do not open.....'	'if he does/ they do not lick.....'

Counter-factual

(1,2)	3ps	à-rô-ràbbé	à-rô-rébbé
MID=XDS		L- <u>HL</u> - L H Ⓡ	L- <u>HL</u> - H Ⓡ
		'if she had not opened.....'	'if she had not licked.....'
	3pp	á-rô-ràbbé	á-rô-rébbé
		H- <u>HL</u> - L H Ⓡ	H- <u>HL</u> - H Ⓡ
		'if they had not opened.....'	'if they had not licked.....'



Hortative

(1,2)	3ps	à-kâ-rébè	à-kâ-rébè
MID=XDS		L-HL- H L ⓧ ⓧ	L-HL- H L ⓧ ⓧ
		'he should not open'	'he should not lick'
	3pp	á-kâ-rébè	á-kâ-rébè
MID=XDS		H-HL- H L ⓧ ⓧ	H-HL- H L ⓧ ⓧ
		'they should not open'	'they should not lick'

Imperative

	2p	kâ-rébé	kâ-rébé
MID=XDS		LH- L H	LH- H
		'do not open!'	'do not lick!'

IV. Negative, repetitive

General (Perfective/Perfect)

(1,2)	3ps	á-kâ-kpó-rèbé	á-kâ-kpó-rébé
MID		H- L- H- L H	H- L- H- H
XDS		H- L- XH- L H	H- L- XH- H
		'she did not/has not opened (it) again'	'she did not/has not licked (it) again'
	3pp	á-ká-kpó-rèbé	á-ká-kpó-rébé
MID		H- H- H- L H	H- H- H- H
XDS		H-XH- XH- L H	H-XH- XH- H
		'they did not/have not opened (it) again'	'they did not/have not licked (it) again'

Imperfective

(1,2)	3p	á-bó-kpó-rèbé	á-bó-kpó-rébé
MID		H- H- H- L H	H- H- H- H
XDS		H-XH- XH- L H	H-XH- XH- H
		'he is not/they are not opening (it) again'	'he is not/they are not licking (it) again'

Cessative

	3ps	à-rò-kpó-rèbé	à-rò-kpó-rébé
MID		L-HL- H- L H	L-HL- H- H
XDS		L- <u>HL</u> - XH- L H	L- <u>HL</u> - XH- H
		Ⓡ	Ⓡ
		'she no longer opens (it) again'	'she no longer licks (it) again'
(1,2)	3pp	á-rò-kpó-rèbé	á-rò-kpó-rébé
MID		H- L- H- L H	H- L- H- H
XDS		H- <u>L</u> - XH- L H	H- <u>L</u> - XH- H
		Ⓡ	Ⓡ
		'they no longer open (it) again'	'they no longer lick (it) again'

Conditional

Simple

(1,2)	3p	á-ró-kpó-rèbé	á-ró-kpó-rébé
MID		H- H- H- L H	H- H- H- H
XDS		XH-XH- XH- L H	XH-XH- XH- H
		'if he does/they do not open (it) again....'	'if he does/they do not lick (it) again....'

Counter-factual

(1,2)	3ps	à-rò-kpó-rèbé	à-rò-kpó-rébé
MID		L-HL- H- L H	L-HL- H- H
XDS		L- <u>HL</u> - XH- L H	L- <u>HL</u> - XH- H
		Ⓡ	Ⓡ
		'if she had not opened (it) again....'	'if she had not licked (it) again....'
	3pp	á-rò-kpó-rèbé	á-rò-kpó-rébé
MID		H-HL- H- L H	H-HL- H- H
XDS		H- <u>HL</u> - XH- L H	H- <u>HL</u> - XH- H
		Ⓡ	Ⓡ
		'if they had not opened (it) again....'	'if they had not licked (it) again....'

Hortative

(1,2)	3ps	à-kâ-kpô-rèbé	à-kâ-kpô-rébé
MID=XDS		L- <u>HL</u> - <u>HL</u> - L H Ⓡ Ⓡ	L- <u>HL</u> - <u>HL</u> - H Ⓡ Ⓡ
		'he should not open (it) again'	'he should not lick (it) again'
	3pp	á-kâ-kpô-rèbé	á-kâ-kpô-rébé
MID=XDS		H- <u>HL</u> - <u>HL</u> - L H Ⓡ Ⓡ	H- <u>HL</u> - <u>HL</u> - H Ⓡ Ⓡ
		'they should not open (it) again'	'they should not lick (it) again'

Imperative

	2p	kâ-kpô-rèbé	kâ-kpô-rébé
MID		L- H- L H	L- H- H
XDS		L- XH- L H	L- XH- H
		'do not open (it) again'	'do not lick (it) again'

V. Directionals

Away from speaker (-ji 'to go')

Perfective

(1,2)	3ps	à-ji-rébé	à-ji-rébé
MID=XDS		L- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ	L- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ
		'she went and opened'	'she went and licked'
	3pp	á-ji-rébé	á-ji-rébé
		H- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ	H- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ
		'they went and opened'	'they went and licked'

Perfect

	3ps	à-ji-rébé	à-ji-rébé
MID=XDS		L- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ	L- <u>HL</u> - <u>H L</u> Ⓡ Ⓡ
		'he has gone and opened'	'he has gone and licked'

(1,2)	3pp	á-jí-rèbè	á-jí-rèbè
MID=XDS		H- $\underset{\text{L}}{\text{L}}$ $\underset{\text{L}}{\text{L}}$	H- $\underset{\text{L}}{\text{L}}$ $\underset{\text{L}}{\text{L}}$
		'they have gone and opened'	'they have gone and opened'

Hortative

	3ps	à-jí-rèbè	à-jí-rébé
MID		L- H- L H	L- H- H
XDS		L-XH- L H	L-XH- H
		'she should go and open'	'she should go and lick'
	3pp	á-jí-rébé	á-jí-rébé
MID=XDS		H- H- L H	H- H- H
		'they should go and open'	'they should go and lick'

Toward the speaker (-bá 'to come')

(Note: the forms in terms of tone are identical whether one uses -jí 'to go' to express direction away from the speaker or -bá 'to come' to express direction toward the speaker. In order to express direction toward the speaker one substitutes -bá for every occurrence of -jí in the above forms. Therefore, the forms for direction toward the speaker will not be given here since the tone for these forms is already specified in the above 'directional' forms.)

### Notes to chapter 3

<sup>1</sup>In EE bisyllabic -CV(C)V roots take ɛ as the second root vowel, the Constituent Focus Perfective suffix and the Associative Marker. However, for -CV roots and roots with a second consonant which is a velar this syllabic unit is a copy of the first vowel in the root. In SE it is tentatively concluded that there are three vowel qualities here: i, e and ɛ, again depending on the height of the first root vowel. In addition, SE has a number of roots which take the low, back vowel ɛ as the second root vowel. A number of such roots are also found in the Abijang sub-dialect of WE.

<sup>2</sup>For example, in a lexical count of 239 -CV(C)V roots from the Eyumojok-Ndebaya sub-dialect, 146 roots have a final ɛ, i.e. 61% of the roots.

<sup>3</sup>In fact, the reconstruction of the second vowel in Proto-Ekoid roots is still the most problematic area in the segmental phonology of Proto-Ekoid. Note also that even though today the Constituent Focus Perfective suffix and the Associative Marker both are part of this general assimilatory process in the Eyumojok-Ndebaya sub-dialect of WE, it is likely (though yet unknown) that they had a different segmental quality in Proto-Ekoid than they do today.

<sup>4</sup>Such a conclusion is not possible in the Eyumojok-Ndebaya sub-dialect of WE since i is conditioned by the [+high] vowels and ɛ by the [-high] vowels. In terms of conditioning features, neither is more restricted than the other.

<sup>5</sup>Note that these facts about the Bendeghe and Agbokem Waterfalls sub-dialects of WE relate to the fact that u historically derives from Proto-Ekoid \*u, and various u's derive from Proto-Ekoid \*o. When the Proto-Ekoid \*u and \*o became u and u, respectively, in various roots, the rule conditioning the height of the second root vowel was not generalized to these new lexical candidates. Thus, Proto-Ekoid \*-gòdè 'to sell' became \*-gòdè when WE lost the three way distinction in front vowels, and then -gùdè when Proto-Ekoid \*o became u in WE. Bendeghe and Agbokem Waterfalls have still not generalized the rule to these candidates, so 'to sell' remains -gùdè. However, in the Eyumojok-Ndebaya sub-dialect these new candidates have been included within the domain of this process, so that 'to sell' is -gùdí.

<sup>6</sup>Of course, there is overlap of these two features for most vowels included within these two sets. The two vowels which have no such overlap are ɛ which is in the set of [-high] vowels and u which is in the set of [+back] vowels.

<sup>7</sup>If the weak contrast between b and ɓ (see footnote 3 of chapter 2) had been maintained in chapter 2, then the continuant ɓ would have to be specified as becoming the plosive labial ɓ also following a nasal. On the other hand, if the r and ɖ had been treated as one phoneme in chapter 2 (see footnote 7 of chapter 2), then this rule (4) would not be necessary. Those roots which never become flap r intervocalically would be marked as exceptions in the lexicon.

However, note that for certain speakers some roots have an invariant flap r, even if preceded by a nasal. But since there is no community-wide agreement on these roots in the Eyumojok-Ndebaya sub-dialect they are not treated here.

<sup>8</sup>The generalization for -CVV roots in (8) is true only for the infinitival forms. In the case of the object pronoun ám 'ms', a different process is involved: namely, the a of the pronoun is deleted rather than the second vowel of the root as is the case with the infinitives (see 3.1.3.1). Take -súí 'to unload off head', for example: è-sú-ám 'to unload off head' and à-súí ñ. 'he unloaded (the load) off of my head'.

<sup>9</sup>If one wanted to use the terminology of analogy rather than rule ordering, one could say that some -Caε roots are being analogized to -Ca roots, while other -Caε roots are not. The process of analogy process is in midstream.

<sup>10</sup>In the case of two -Caε roots, the a after the deletion of the second vowel ε becomes ε itself: Ñ-táé èy-á --> Ñ-tá èy-á --> Ñ-té èy-á 'your rock', and è-báé èj-á --> è-bá èj-á --> è-bé èj-á 'your marriage'.

<sup>11</sup>In the presentation elsewhere in this paper, full forms of verbs and nouns are given except in the case of the suffixed verb forms. In this case the shortened form of the root is used. Also, the imperfective suffix is marked as -á, but see 3.1.3.6 for further discussion.

<sup>12</sup>There are two variants of the associative marker (AM) in the Eyumojok-Ndebaya sub-dialect (see 5.9 for further details). For expository reasons the variant of the AM which has an invariant form i is used throughout this study unless otherwise indicated.

<sup>13</sup>This deletion process which has neutralized various forms of the lps possessive pronoun may be due the fact that even in Proto-Ejagham the lps possessive pronoun had at least a variant form in class 1 òmé and in class 9 àmé. Speakers then by analogy to these forms identified the lps possessive pronoun with a sequence Vmé rather than one including the concord morpheme. Such a process of simplification had occurred in a pre-Proto-Ejagham stage with the 3pp possessive pronoun which is today é'bǒ in every Ejagham dialect and in every noun class---the concord morpheme has been entirely lost in this person and number of the possessive pronouns. This suggests that in this sub-dialect the lps form may be an invariant àmé, or the like.

<sup>14</sup>In EE and in the eastern area of WE the velar has been entirely lost. All verb roots, even -CV ones, simply take a suffix -á.

<sup>15</sup>Note that this a is reminiscent of the a discussed in Welmers (1963) and also found in many other Bantu languages in an identical construction involving a verb root and a noun (Knappert 1965):



<sup>16</sup>The distributional facts have been discussed to some extent also by Edmondson and Bendor-Samuel (1966):

<sup>17</sup>For Proto-Ekoid (Watters unpublished.53-55) the following tone classes for verb roots are reconstructed:  
1) -LH: \*-nǎ 'to rain', \*-k<sup>i</sup>ǎn 'to travel', \*-fǐmí 'to wake up', and 2) -H(H): \*-yóm 'to dry up', \*-k<sup>u</sup>ó 'to die', \*-kǎné 'to fry'. These forms in WE are: 1) -LH: -nǎ 'to rain', -jǎn 'to travel', -fǐmémé 'to wake up', and 2) -H(H): -yúm 'to dry up', -kpó 'to die', and -kǎné 'to fry'.

Of course, simply because a set of verbs had certain underlying tones in the past is no guarantee that they have the same underlying tones in the present day language. However, this correlation is suggestive. The only conclusive evidence in support of the proposed underlying tones would involve a lengthy comparison between different sets of underlying tones and the rules they would require to derive the correct surface forms. However, such a comparison is not the point of this paper, so the case for the proposed underlying tones will be taken as sufficiently supported by the three types of evidence given above.

<sup>18</sup>In an analysis of over 600 nouns, there were only nineteen exceptions. Of these, four seem to be the result of the loss of an earlier reduplicated syllable. Compare the WE form with the EE forms: ǎ-čǎ (WE)/ǎ-kèkénè (EE) 'palm nut fiber', ǎ-kǎ (WE)/ǎ-kèkǎ (EE) 'owl', ǎ-čǎ (WE)/ǎ-čèčè (EE)

'awaast bee', and é-rún (WE)/é-lálémbé (EE) 'knea'. Fourteen of the other exceptions have the tone pattern H-L  $\hat{HL}$  as on ó-kúná 'chameleon', and one root has the pattern N-kpíri 'small skin-drum':

<sup>19</sup>I wish to thank Vicki Fromkin for her valuable assistance in this study of Ejagham tone, both by way of general discussion and by way of specific comments and criticisms. She reminded me of the possible role of sequence structure constraints in the discussion of DS as a 'restricted' mid tone, and she pointed out to me that the feature [ $\pm$ distributed] is much like the feature [ $\pm$ DS]: both have been used as features but neither has been found necessary in phonological rules.

<sup>20</sup>Note that what is at issue here is not the fact that DS languages differ from non-DS languages with mid tone in quite distinct ways. The issue is simply what tone features are sufficient in phonological theory in order to specify the tone levels of an arbitrary language.

<sup>21</sup>In fact, this position has a certain tradition, if twenty years is enough to establish a tradition in linguistics. It dates back to Welmer's (1959) relational tones "aame" and "drop" and to Winston's (1960) "downstep". As with any tradition, it carries a certain weight of its own in any argumentation, and there is no doubt that for those working in languages with downstep, it is orthographically efficient to mark downstep with an apostrophe.

However, it is argued here that tradition and orthographic efficiency must be distinguished from a constrained theory of phonology.

<sup>22</sup>There are certain exceptions to this statement. For example, Schachter and Fromkin (1968) use pitch values to account for downstep in Akan---that is, downstep does not appear in the pre-phonetic structure, though downstep occurs in the language.

<sup>23</sup>It might also be true that the difference between a 'restricted' mid tone and a non-restricted mid tone would show up in the feature specifications. For example, the 'restricted' mid tone may consistently turn out to be  $\left[ \begin{array}{l} +high \\ +mid \end{array} \right]$  while the non-restricted mid tone may turn out to be something different from those features and their values. Note that the feature specification for 'restricted' mid tone classifies the tone both with  $[+high]$  tones and with  $[+mid]$  tones. Thus like "downstepped-high" tone it is still "high".

<sup>24</sup>An exception is Dschang Bamileke (Hyman and Tadadjeu 1976).

<sup>25</sup>It is true that after low the distinction between high and DS ('restricted' mid tone) is neutralized, so one could say "there is no distinction between high and DS after low". However, for SSC's one must be specific and so choose: either low is followed by high but not by DS, or it is followed by DS and not by high. The choice here: high

follows low, but DS does not.

<sup>26</sup>Note that this is no different than saying a high never receives a higher pitch than the preceding DS tone or tone matrix with [+DS].

<sup>27</sup>One might ask if this proposal is adequate for a language like Dschang Bamileke for which Hyman and Tadadjsu (1976) propose both a downstepped high and a downstpped low. Dschang Bamileke has the following tones, using Hyman and Tadadjsu's notation.

<u>Tones</u>	<u>Notation</u>
a. high	H
b. low i) falling	L
ii) non-falling	L <sup>o</sup>
c. downstpped high (after both high and low)	'H
d. downstepped low (after low only)	'L

The language does not have downdrift.

In terms of Anderson's proposal, the Dschang tones could be represented as below. 'XL' stands for 'extra-low' tone.

<u>Reanalysis: four tones</u>	<u>Hyman and Tadadjeu</u>
a. H	H
b. M	'H
c. L	L <sup>o</sup>
d. XL	'L

The 'L' tone in Hyman and Tadadjeu's analysis would simply be a decomposed contour tone:

Reanalysis

L XL

Hyman and Tadadjeu

L

The ligature indicates that these two tones are assigned to the same syllable.

This reanalysis of the tone levels permits one to use a limited set of tone features without the need for downstep. For the four tone levels it would probably be necessary to use [+high], [+mid] and [+low], perhaps along the following lines:

Tone features

- a. H    [+high]  
         [-mid]
- b. M    [+high]  
         [+mid]
- c. L    [-high]  
         [+low]
- d. XL [-high]  
         [-low]

Feature redundancy rules

- a. [+high] --> [-low]
- b. [-high] --> [-mid]

However, three questions remain which go beyond the goals of this study and which could not be answered in any case without further knowledge of the language. First, is it possible to restate Hyman and Tadadjeu's tone rules in terms of these tones? Secondly, can the use of these four tones lead to a correct phonetic realization of any Dschang utterance? Thirdly, does the use of these tones obscure any

phonological generalization which would otherwise be statable with Hyman and Tadadjeu's tones?

<sup>28</sup>The 'dynamic' tone  $\left[ \begin{array}{l} +\text{high} \\ +\text{DS} \end{array} \right]$  could also be interpreted as a special type of falling contour, at least in terms of its derivational origin, coming from an earlier \*H L sequence in which the syllable which carried the L tone has been lost. As a special contour the contour no longer surfaces in the present day language, but it instead becomes simplified like the falling contours discussed in 3.2.1.5. If it is interpreted this way, then the feature [+DS] serves to two functions: first it serves as a type of contour feature, and secondly it serves as a type of exception feature for the fact that the contour never surfaces but is instead always simplified.

<sup>29</sup>In his discussion on nasals, Anderson concentrates on various types of nasal consonants found in various languages of Africa, South America, South Asia, New Guinea and the Pacific. These types of nasal consonants include prenasalized stops (e.g.  $\widehat{m}b$ ,  $\widehat{n}d$ ,  $\widehat{\eta}g$ ), postnasalized stops (e.g.  $\widehat{p}m$ ,  $\widehat{t}n$ ,  $\widehat{k}\eta$ ) and medio-nasalized stops (e.g.  $\widehat{bmb}$ ,  $\widehat{dnd}$ ). He concludes from his discussion of simple nasals and these complex nasals "that there is a single feature of nasality, and that it has a domain that may be smaller than a single segment" (1976:337), particularly in the case of these complex nasals.

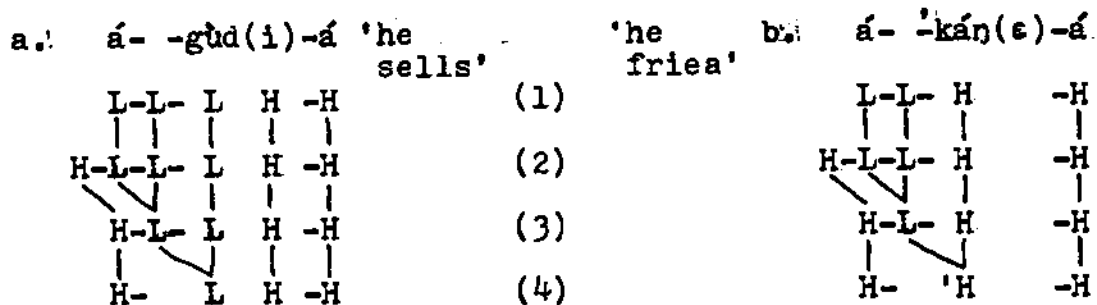


different processes. Of course, it is not impossible to have floating low tones in an analysis with 'restricted' mid tone or 'static' DS, but in either case an additional rule is needed to account for the conditional verb forms. Such a rule is not necessary in the 'dynamic' DS analysis because the historical low tone is incorporated in the synchronic language in the feature [+XDS].

<sup>34</sup>It is tempting to handle it lexically with the features [+high] and [+XDS]. However, this specification would mean that a following high tone would be downstepped. But this does not happen: a following high is at the same level as the suffix. So regardless of how one accounts for it, an exception has to be specified, and it is preferable to have an exception on a rule rather than a feature.

<sup>35</sup>Note that the constituent-focus imperfective probably derives from the habitual forms. They share the same suffixal forms and semantically they are related in that the notion of imperfectivity includes the notion of habituality (as well as the notion of continuity (Comrie 1976)). Note that the present day habitual forms may have once been simple imperfective forms themselves, but this is not certain. But it would help explain why in the sub-ordinate clauses this verb form has an imperfective rather than the narrower habitual reading. In any case, the suggested derivation is as follows:





On line (1) the underlying tones of the original imperfective or habitual are specified. Then a high tone prefix was introduced (line (2)) in order to distinguish the constituent-focus form from the auxiliary-focus form. This high tone prefix led to the rightward shift of all the other tones which merged with any adjacent similar tone (lines (3) and (4)).

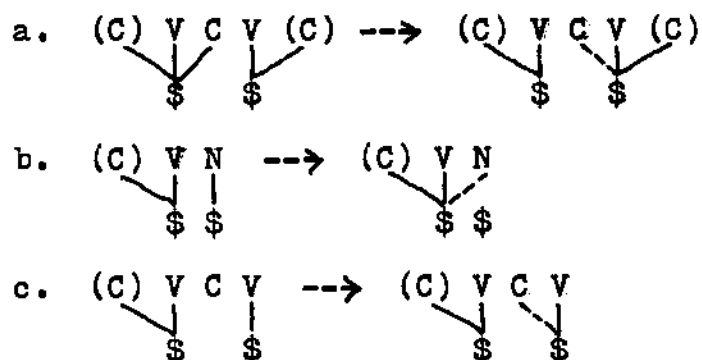
<sup>36</sup>Note that among other possibilities rules (126) and (130) could have been formulated as  $H \rightarrow L$ , where  $LL \rightarrow L$ . Thus, instead of low tone deletion this would be high tone lowering. Obviously, nothing of importance should be attached to the name of the process.

<sup>37</sup>Note that in rule (146) there are exceptions to this process. These exceptions are due to the application of the downdrift rule which makes all H L H sequences into ones of H L 'H. But rule (148) in the 'dynamic' DS analysis no such exception has to be specified because of the crucial difference between H and XH. This process only occurs in sequences of H L H and not those with XH L H.

<sup>38</sup>Note that the final vowel of -CV(C)V roots could be deleted before any association process since the root would

then simply be treated as a monosyllabic one. However, in order to give a unified account of the deletion processes and their relation to tone the schema in (158) is used for -CV(C)V roots also.

<sup>39</sup>The syllabification processes in 2.2.5 can be formalized in terms of the theory used here as follows:



The process specified in (c) is not discussed in 2.2.5 but it is necessary to account for the reassociation of certain consonants after the deletion process has deleted the vowel and the syllabic matrix with which both the vowel and consonant were associated.

CHAPTER 4

THE NOUN

## 4.0 The Noun

### 4.1 Expression of syntactic and semantic functions

The means used to express the syntactic functions of noun phrases, such as subject, direct object and indirect object; and the means used to express the semantic functions of noun phrases, such as agent, goal, benefactive, recipient, instrumental, comitative (accompaniment), possessor, location, temporality, and so on, involve the following: a particle, prepositions, and word order.

#### 4.1.1 Particle

The one particle used to express such functions is the associative marker (AM). The AM indicates an association between two nouns which in other analyses might be termed a "genitive" or "possessive" relationship. It is true that it can indicate possession, but it can also indicate other relationships such as the contents of an item, the material that an item is made of, and so on. For this reason, it is referred to by this more general term suggested by Welmers (1963): "associative marker". See section 5.9 for the details about its surface forms.

#### 4.1.2 Prepositions

Prepositions are used to indicate the syntactic function of indirect object and a variety of semantic functions. In the case of the indirect object the use of a preposition is structurally in free variation with the use of word order to indicate this function (see 4.2.3). In the case of semantic

functions, prepositions are used to indicate a number of non-local semantic functions (4.4), local semantic functions (4.5) and temporal semantic functions (4.6).

#### 4.1.3 Word order

Word order is used to distinguish the subject, the direct object and the indirect object (when it is not indicated by a preposition). The basic order of constituents in the clause is given in (1):

(1) S V IO O

The subject always occurs pre-verbally, but the direct object (O) may occur sentence initially if it is either being focused or topicalized. The indirect object (IO) always occurs post-verbally, and if it is indicated by word order rather than a preposition, it will occur immediately after the verb and precede the direct object (O).

The subject noun phrase may be deleted under conditions of anaphora, but the subject is always indicated in the verb by the subject prefix. Thus, in most cases where the direct object occurs before the verb and the subject has been deleted, the subject prefix will disambiguate the syntactic function of the noun phrase which precedes the verb. However, there are cases where the subject prefix can agree with the noun class to which the fronted direct object belongs, and in such cases only the larger context will determine whether the noun phrase preceding the verb is to be interpreted as the direct object or the subject. An example of such a

sentence is given in (2):

- (2) kpè Ñ-ñàm á-kà-dí  
even 9-animal/meat 1/9-NEG-eat  
'even meat he didn't eat/'even an animal didn't eat'

#### 4.2 Specific means for expression of syntactic functions

##### 4.2.1 Subject

The subject of intransitive and transitive verbs are expressed in the same way. The marking of the subject is not sensitive as to whether the subject is the agent or not of the action. The subject is obligatorily indicated by a subject prefix in the verb, except with imperative verb forms. It may be optionally indicated by a pronoun, simple noun phrase, or a complex noun phrase. It is never marked by a preposition. In the case of complex noun phrases involving a relative clause which serve as the subject of an intransitive verb, the relative clause is optionally postposed to the post-verbal position. Consider the following examples.

- (3) a. Ñ-tèm òmé Ñ-ñò à-túb-í ì-nón  
1-friend 1:my REL-1 3ps:PFV-shoot-C.Foc 19-bird  
'my friend who shot the bird  
à-bà  
3ps:PFV-come  
came'
- b. Ñ-tèm òmé à-bà Ñ-ñò à-túb-í  
1-friend 1:my 3ps:PFV-come REL-1 3ps:PFV-shoot-C.Foc  
'my friend came who shot

ì-nón  
19-bird  
the 'bird'

- c. Ñ-tèm òmé á-ñò à-bá  
1-friend 1:my that-1 3ps:PFV-come  
'that friend of mine came'
- d. yê à-bá  
3ps 3ps:PFV-come  
'he/she came'
- e. à-bá  
3ps:PFV-come  
'he/she came'

Nouns and noun phrases are not case marked, but in pronouns there is a distinction between nominative and accusative forms in 1ps and 2ps (see section 5.1.8).

Subjects of copular constructions behave the same as those of intransitive and transitive verbs except when the copular construction involves a predicate nominative. In this case the subject prefix is an invariant à- except when the subject is 3pp. With 3pp the subject prefix is á-. Thus, if the subject is [+human], then the subject prefix agrees in number and noun class. But if the subject is [-human], then the subject prefix does not agree in either number or noun class. However, there are some uncertainties here which still need to be further studied<sup>1</sup>. Compare the constructions in (4) with predicate locatives and those in (5) with predicate nominatives. For some speakers of this sub-dialect the copula is -rě 'to be' and for others it is -rĩ 'to be'.

- (4) a. òmè Ñ-dě òfá 'I am here'  
 1ps 1ps-be here
- b. yě à-rě òfá 'he/she is here'  
 3ps 3ps-be here
- c. ábǒ á-ré' òfá 'they are here'  
 3pp 3pp-be here
- d. è-jùm á-jì é-ré' òfá 'that thing is here'  
 5-thing that-5 5-be here
- e. ì-yim á-bì í-ré' òfá 'those things are here'  
 8-thing that-8 8-be here
- f. ò-búi ó-ré' òfá 'the goats are here'  
 14-goat 14-be here
- (5) a. òmè à-rè Ñ-nèndùm 'I am a man'  
 1ps 1-be 1-man
- b. yě à-rè Ñ-nèndùm 'he is a man'  
 3ps 1-be 1-man
- c. yě à-rè è-jùm 'he is a thing'  
 3ps 1-be 5-thing
- d. ábǒ á-ré' à-nàrùm 'they are men'  
 3pp 2-be 2-man
- e. è-jùm á-jì à-rè Ñ-tí 'that thing is money'  
 5-thing that-5 SP-be 3-money
- f. ì-yim á-bì à-rè ò-búi 'those things are goats'  
 8-thing that-8 SP-be 14-goat
- g. bì-yù à-rè é-dí 'yams are food'  
 8-yam SP-be 5-food

In (4) the subject marker of the copula agrees with the subject in number and person, or noun class, or both. However, in (5) the subject prefix does not agree in this way. In (5a) through (5d) it agrees with the noun class of the



subject, but in (5e) through (5g) there is no such agreement. The examples in (5c) and (5e) through (5g) show that the subject prefix is not agreeing with the predicate nominal either.

These facts do not change in the negative of the copula, as indicated by the following examples.

- (6) a. m̀m̀è (à-r̀è) é-tí àsíg 'I am not a tree'  
 1ps (1-be) 5-tree NEG.IDENT
- b. ỳé (à-r̀è) è-j̀úm àsíg 'he is not a thing'  
 3ps (1-be) 5-thing NEG.IDENT
- c. áb̀b̀ (á-r̀é) ó-b̀ùì àsíg 'they are not goats'  
 3pp (2-be) 14-goat NEG.IDENT
- d. ì-ỳím á-b̀ì (à-r̀è) Ǹ-́tí àsíg  
 8-thing that-8 (SP-be) 3-money NEG.IDENT  
 'those things are not money'

The copula is optional in the constructions in (6), with the negation being expressed by the morpheme which indicates the negative identification: àsíg 'NEGATIVE IDENTIFICATION'.

However, note that this contrast between a predicate locative and a predicate nominative carries over into the negatives of the copular constructions. Thus, the "àsíg" constructions in (6) are the negative of the predicate nominative constructions in (5), while the "čán" constructions in (7) below form the negative counterparts to the predicate locative constructions in (4).

- (7) a. ỳé čán 'he is not here'  
 3ps NEG.EXIST. 'he does not exist'

- b. è-jòm á-ji čán 'that thing is not here'  
 5-thing that-5 NEG.EXIST 'that thing does not exist'
- c. ò-búi čán 'the goats are not here'  
 14-goat NEG.EXIST 'the goats do not exist'

The morpheme čán 'NEGATIVE OF EXISTENCE' serves as the negative of the predicate locative as well as the negative of existence or presence. But note that the positive construction indicating existence or presence is identical to the predicate locative ones in (4) except that the locative pronoun is deleted. Thus, without the locative pronoun (4a) would mean 'I exist' or 'I am present', (4b) 'he exists' or 'he is present', and so on.

Returning to the main topic, it is concluded that the subject noun phrase does not vary in relation to the type of verb or copula found in the given construction. The only variation appears in the subject prefix of copular constructions involving predicate nominatives.

#### 4.2.2 Direct object

The marking of the direct object is not sensitive to any variation in its semantic function. Unlike the subject, it is never marked by an affix on the verb. It may be optionally indicated by a complex noun phrase, a simple noun phrase, a pronoun or zero anaphora, as shown by the following examples:

- (8) a. à-nám bì-yù Ì-bí à-kpàn-é'  
 3ps:PFV-buy 8-yam REL-8 3ps:PFV-hoe-C.Foc  
 'she bought the yams which he hoed/planted'
- b. à-nám bì-yù 'she bought the yams'  
 3ps:PFV-buy 8-yam



c. à-kí-kàré      é-dí      'she is giving (them) food'  
       3ps-CONT-give 5-food

Of course, a verb such as 'to give' which can take three noun phrases (i.e. arguments), given the various possibilities for expressing these noun phrases, can have none of the noun phrases expressed as exemplified in (10).

(10) à-kí-kàré      'she is giving (them) (food)'  
       3ps-CONT-give

In such cases of zero anaphora, the referant is only identifiable in the larger linguistic or situational context.

The second way of expressing the indirect object is with the preposition mbâ 'to, for, from'. In this case, the indirect object must follow the direct object:

(11) à-kí-kàré      é-dí      mbâ à-tèm      àb-é  
       3ps-CONT-give 5-food to 2-friend 2-3ps  
       'she is giving food to her friends'

Up to now no clear semantic or pragmatic difference between these two forms of the indirect object has been found either in texts or in elicitation. However, structurally in terms of "heavy shift" there is a preference for a noun phrase, whether the direct or indirect object, which is significantly complex to occur at the end of the clause. But this does not explain the various possible orderings when both noun phrases are simple.

Note that in neither of these two means for expressing the indirect object can it be fronted. This is only possible with the direct object, even with one in a sentence like (9a).

#### 4.2.4 Object of comparison and equation

The object of comparison involves the use of a serial construction in which the object of comparison is the direct object of the verb 'to surpass'. The object of equation involves the use of the adverb ékân-ékân 'exactly, same' and either the preposition nâ 'with' or the conjunction nǎn 'like'. For examples of these types of constructions see 7.1.2.

#### 4.2.5 Other objects governed by verbs

Besides the direct object and the indirect object without the preposition, other noun phrase complements of the verb can be expressed without a preposition, as in 4.2.6 and 4.2.7. However, apart from these, all other noun phrase complements of the verb must be expressed with a preposition. See 4.4, 4.5 and 4.6.

#### 4.2.6 Complement of copular construction

The complement of a copular construction, whether that construction defines, identifies or indicates the role of the complement, is identical in each case and is not indicated by a preposition. It is identical to the complements in (5) above:

(12) a. Defining complement

yê à-rè N-nèndùm 'he is a man'  
3ps 1-be 1-man

b. Identifying complement

yê à-rè àyûg 'he is Ayuk'  
3ps 1-be Ayuk

c. Role indicating complement

yɛ̀ à-rɛ̀ Ñ-túfám                    'he is chief'  
3ps 1-be 1-chief

4.2.7 Subject and object complements

Since the language does not include a passive construction in which a direct object can become the subject, subject complements do not occur. Object complements, however, do occur as exemplified in (13):

(13) a. ɛ̀d ɛ̀-yím                    yɛ̀ Ñ-túfám  
1pp 1pp:PFV-make 3ps 1-chief  
'we made him chief'

b. à-yím                    bì-jì ìb-ɛ̀ Ñ-túfám  
3ps:PFV-make 8-body 8-3ps 1-chief  
'he made himself (lit. 'his body') chief'

In (13a) the direct object is yɛ̀ 'him' and in (13b) it is the reflexive form bì-jì ìb-ɛ̀ 'himself', while the object complement in (13a) and (13b) is Ñ-túfám 'chief'. Note that this is the only construction in which two noun phrases occur after a verb, without one being marked by a preposition, and neither of the noun phrases has the function of indirect object.

4.2.8 Objects governed by adjectives

As a general rule attributive adjectival concepts are expressed by verbs in Ejagham. There are a few concepts, however, which are expressed by non-verbal forms. These forms may be called "adjectives". When these adjectives follow a copula, the object of the adjective is expressed with the preposition nà<sup>2</sup>:

- (14) a. yĕ à-rĕ kpídí-kpídí nà è-tég á-ji  
 3ps 3ps-be near with 5-village that-5  
 'he is close to that village'
- b. yĕ à-rĕ égyè nà wè 'she is different  
 3ps 3ps-be different with 2ps from you'

The object of the adjective can also be expressed with the conjunction nǎn 'like' if there is a equivalence involved:

- (15) ìmĕ Ì-dĕ nǎn nǎn wá  
 1ps 1ps-be well like 2ps  
 'I am well like you'

#### 4.2.9 Agent in impersonal constructions

The language does not have the typical passive in which a direct object is advanced to the subject position, but it does have certain impersonal constructions. In an impersonal construction the subject is left unspecified except for the subject prefix of the verb. If the understood agent is animate, then the subject prefix is that of the 3pp. If the understood agent is non-animate, then the subject prefix is that of noun class 5. Note that as a broad characterization noun class 5 can be said to have 'things' as members as opposed to humans, animals, liquids, and so on. Consider the following examples:

- (16) a. á-yĕn wá k(a) ě-tég  
 3pp:PFV-see 2ps in 5-village  
 'they saw you in the village'  
 'you were seen in the village'
- b. ě-súm wá k(a) ě-ĉì  
 5:PFV-strike 2ps on 5-head  
 'it struck you on the head'

#### 4.3 Syntactic functions in relation to nonfinite verb forms

The nonfinite verb forms are the infinitive and the gerund<sup>3</sup>. The infinitive is formed by prefixing the verb root with the noun class 5 prefix ě- and suffixing it with the infinitival suffix -ém. The gerund is formed by prefixing the verb root with the noun class 14 prefix ò-<sup>4</sup>. (See 3.1.1.4 and 6.9 for further details.)

Syntactically the infinitive and the gerund differ in various ways. The infinitive must occur with the preposition kǎ 'in, on, at, to, from' when the verb in the main clause is a verb like -táné 'to refuse' or -tób 'to follow':

- (17) a. Ñ-tánè                      yè k(a) ě-gùr-úm      bí-yù  
           1ps:PFV-refuse 3ps to    5-sell-INF 8-yams  
           'I refused him permission to sell yams'
- b. \*Ñ-tánè                      yè ě-gùr-úm      bí-yù  
           1ps:PFV-refuse 3ps 5-sell-INF 8-yams  
           'I refused him permission to sell yams'

However, with other verbs the use of the preposition kǎ is optional:

- (18) a. à-rógè                      k(a) ě-kpàn-ém bí-yù  
           3ps:PFV-begin to    5-hoe-INF 8-yam  
           'he began to hoe yams'
- b. à-rógè                      ě-kpàn-ém bí-yù  
           3ps:PFV-begin 5-hoe-INF 8-yam  
           'he began to hoe yams'

By contrast, the gerund never occurs with the preposition kǎ.

Secondly, the infinitive can be used as a simple nominal



while the gerund cannot:

- (19) a. à-rè è-kpó-óm nâ é-bá'-g ánò  
 SM-be 5-die-INF FOC 5:C.Foc-come-IMPFV thus  
 'it was death that came in that way'
- b. \*à-rè ò-kpó nâ ó-bá'-g ánò  
 SM-be 14-die FOC 14:C.Foc-come-IMPFV thus  
 'it was dying that came in that way'
- (20) a. è-súm-úm èj-â 'your clearing of bush'  
 5-clear;bush-INF 5-your
- b. \*ò-súm òb-â 'your clearing of bush'  
 14-clear;bush 14-your

Thirdly, the infinitive occurs with a certain closed set of verbs including -yúní 'to be difficult', -fǒn 'to have', -sí 'to arrive', -tàné 'to refuse permission, to inhibit', -tén 'to refuse, to forbid', and so on. The gerund occurs with a largely different set of verbs including -jǐ 'to go', -bá 'to come', -síg 'to be almost', -nǒg 'to have experience', and so on. There is some overlap in the two sets. For example, both the infinitive and the gerund can occur with the verb -rógé 'to begin', but up to now it has not been possible to find a semantic difference between the two in their co-occurrence with -rógé 'to begin'.

Fourthly, the infinitive can be used in an adverbial phrase with kpè 'even' in a negative clause while the genitive cannot. But the genitive form serves as the cognate object while the infinitive does not. Consider the following examples:

- (21) a. á-kà-kón kpè è-kón-ém.  
 3ps-NEG-sing even 5-sing-INF  
 'she did not sing at all (lit. 'even singing')!'
- b. \*á-kà-kón kpè ò-kón  
 3ps-NEG-sing even 14-sing  
 'she did not sing at all'
- (22) a. à-kí'yám ó'yám  
 3ps-CONT-cook 14-cook  
 'she is cooking'
- b. \*à-kí'yám é'yám-ém  
 3ps-CONT-cook 5-cook-INF  
 'she is cooking'

Comparing these nonfinite verb forms with finite verb forms, certain differences in the expression of syntactic functions should be noted.

#### 4.3.1 Infinitives

In infinitival clauses the subject is deleted. However, it is co-referential with the subject or one of the objects, whether direct or indirect, of the main clause. For example, in (23a) the subject of the main verb is co-referential with the understood subject of the infinitival clause; in (23b) the direct object of the main verb is co-referential with it; and in (23c) the indirect object of the main verb is co-referential with it.

- (23) a. à-nè á-bà á-rógè Ñ-jô è-tàm-ém  
 2-person that-2 3pp:PFV-begin 9-dog 5-beat-INF  
 'those people began to beat the dog'
- b. Ñ-túfám à-bín yě k(a) è'sén-ém Ñ-wèd  
 1-chief 3ps:PFV-call 3ps to 5-write-INF 9-paper  
 'the chief called him to write a letter'

c.. à-kàré àyùg é-dí k(a) ẽ-kíd-ém  
 3ps:PFV-give Ayuk 5-food to 5-divide-INF  
 'she gave Ayuk the food to divide  
 mbá à-tèm  
 to 2-friend  
 with (his) friends'

When no other argument of the infinitive appears on the surface, the subject of the infinitive is optionally expressed with a possessive pronoun.

(24) N̄-kùb wá k(a) ẽ-kpàn-ém ẽj-á  
 1ps:PFT-greet 2ps to 5-hoe-INF 5-your  
 'I thank you for your hoeing'

The direct object, indirect object and any non-term verbal complement are optionally fronted before the infinitive in infinitival clauses. Consider the various orders displayed in (25). The following words are used in the examples in (25): á-rógè 'they began', ẽ-kàd-ém 'to give (i.e. the infinitive)', á-sé 'fathers', ò-rân 'fufu', and kǎ N̄-jù 'in the house'.

- (25) a. á-rógè ẽ-kàd-ém á-sé ó-ràn kǎ N̄-jù  
 'they began giving the fathers fufu in the house'  
 b. á-rógè á-sé ẽ-kàd-ém ó-ràn kǎ N̄-jù  
 'they began giving the fathers fufu in the house'  
 c. á-rógè ò-rân ẽ-kàd-ém á-sé kǎ N̄-jù  
 'they began giving the fathers fufu in the house'  
 d. á-rógè kǎ N̄-jù ẽ-kàd-ém á-sé ó-ràn  
 'they began giving the fathers fufu in the house'  
 e. á-rógè á-sé ó-ràn ẽ-kàd-ém kǎ N̄-jù  
 'they began giving the fathers fufu in the house'

- f. \*á-rógè ò-ràn á-sé è-kàd-ém kǎ N-jù  
 'they began giving the fathers fufu in the house'
- g. \*á-rógè á-sé kǎ N-jù è-kàd-ém ó-ràn  
 'they began giving the fathers fufu in the house'
- h. \*á-rógè á-sé ó-ràn kǎ N-jù è-kàd-ém  
 'they began giving the fathers fufu in the house'

Without going into too many details concerning the syntax of infinitival clauses, note that in (25b) the indirect object has been fronted, in (25c) the direct object has been fronted, in (25d) the locative verbal complement has been fronted, and in (25e) both the indirect and direct objects have been fronted. (25f) shows that when both objects are fronted they must occur in their post-verbal order of IO O. (25g) shows that the language does not tolerate the fronting of the non-term locative complement over the direct object, and (25h) shows that it does not tolerate the fronting of the locative complement if both objects have been fronted. In fact the locative complement can be fronted only if no other noun phrase has been fronted.

Note that the effect of fronting in (25) is to place contrastive focus on the fronted noun phrase. Thus, in (25b) 'they began with the fathers, and not someone else', in (25c) 'they began giving the fufu, and not some other food', and so on.

Of course, in text material the infinitive most commonly occurs only with one argument or no argument. Those that do occur with one argument most frequently have it fronted. In

fact, with certain verbs there appears to be a strong preference for fronting the object regardless of what is or is not being contrastively focused, forming what might be considered a compound noun. Consider the examples in (26).

- (26) a. à-rógè                    bì-yù    è-kpàn-ém  
           3ps:PFV-begin 8-yam    5-hoe-INF  
           'she began yam-hoeing'
- b. à-rógè                    è-kpàn-ém    bí-yù  
           3ps:PFV-begin 5-hoe-INF    8-yam  
           'she began hoeing yams/to hoe yams'

(26a) is generally preferred by speakers to (26b). The reason for this preference is not yet clear.

#### 4.3.2 Gerunds

The subject is deleted with gerunds, and may not occur as a possessive pronoun as in the case of infinitives. However, similar to infinitives, the objects may be fronted before the gerund. In the examples in (27) the words are glossed as follows: à-wágè 'she was quick', ò-kàdé 'giving (i.e. the gerund)', á-sé 'fathers', and é-dí 'food':

- (27) a. à-wágè    ò-kàdé    á-sé    é-dí  
           'she was quick in giving the fathers food'
- b. à-wágè    á-sé    ò-kàdé    é-dí  
           'she was quick in giving the fathers food'
- c. à-wágè    é-dí    ò-kàdé    á-sé  
           'she was quick in giving the fathers food'
- d. à-wágè    á-sé    é-dí    ò-kàdé  
           'she was quick in giving the fathers food'

In (27b) the indirect object has been fronted, in (27c) the

direct object has been fronted, and in (27d) both objects have been fronted. Thus, in infinitival and gerundial clauses the order of constituents is not as rigid as in main clauses, and the identification of the various syntactic functions, specifically the distinguishing of the direct and indirect objects, depends in part on the semantics of the verb rather than simply on their relative structural order.

#### 4.4 The expression of nonlocative semantic functions

##### 4.4.1 Benefactive

The benefactive semantic function is expressed in three different ways: 1) as a syntactically defined indirect object, 2) as a prepositionally marked indirect object, and 3) as the direct object of the verb -kàdé 'to give' in a serial construction.

##### (28) Syntactic indirect object

- a. à-yim            òm    è-tòm            'he did work for me'  
       3ps:PFV-do lps 5-work
- b. à-tùb            òd    Ì-jòg            'he shot us an elephant'  
       3ps:PFV-shoot lpp 9-elephant

##### (29) Prepositional indirect object

- a. è-sùm            è-bìn    mbà àyùg  
       lpp:PFV-clear 5-farm for Ayuk  
       'we cleared the farm for Ayuk'
- b. Ì-kí'yám        é-dí    mbà Ì-tèm      òmé  
       lps-CONT-cook 5-food for 1-friend 1:my  
       'I am cooking food for my friend'

(30) Serial construction with -kàdè 'to give'

- a. nǎm í-tèmè k(a) ǝ-gəm, kàdè ǝm  
 buy-IMPER 19-machete at 14-market, give-IMPER lps  
 'buy a machete at the market for me (lit: 'give me')'
- b. è-sùm è-bǐn è-kàdè àyùg  
 lpp:PFV-clear 5-farm lpp:PFV-give Ayuk  
 'we cleared the farm for Ayuk (lit: 'we gave Ayuk')'
- c. bǐn ǝbí, kàdè ǝm  
 call-IMPER Obi, give-IMPER lps  
 'call Obi for me (lit: 'give me')'

4.4.2 Substitutive

The substitutive semantic function is expressed with the prepositional phrase kǎ N-bìŋ 'in the name of/for the sake of/in the place of'.

- (31) à-yám-á ǝm é-dí kǎ N-bìŋ èy-ǎ  
 3ps:HAB-cook-IMPFV lps 5-food in 9-name 9-your  
 'she cooks food for me in place of you'

4.4.3 Source

Source is expressed either by the preposition mbá 'to, for, from' or by the preposition kǎ 'in, on, at, to from'. The preposition mbá is used with human sources, and the preposition kǎ with non-human sources.

- (32) a. ǝ-yùg ǝ-tib á-bì mbá ètá à  
 2ps:PFT-hear 14-message that-14 from Eta QM  
 'have you heard that message from Eta?'
- b. é-kǝb N-jí é-dú kǎ N-bùg  
 5-bone this-5 5-come:from from 9-monkey  
 'this bone came from a monkey (i.e. a monkey's body)'

#### 4.4.4 Instrumental

Instrumental is expressed either by the preposition nà 'with' or a serial construction involving the verb -kó 'to take'.

- (33) a. N-tèm      òmé à-bà                      è-túg  
 1-friend 1:my 3ps:PFV-butcher 5-Ogilby:duiker  
 'my friend butchered the Ogilby duiker'  
nà   N-mǎn                      i-tèmè                      if-à  
 with 1-child/small 19-machete 19-your  
 with your knife'
- b. ò-kò                      í-tí                      ò-súm                      igrá à  
 2ps:PFV-take 19-etick 2ps:PFV-hit Igra QM  
 'did you take that stick and hit Igra?'

The negative instrumental can be expressed with a relative clause which specifies the absence of the instrument:

- (34) N-yúi                      N-nàm                      á-ñi                      N-ji   N-gún čán  
 1ps:PFV-kill 9-animal that-9 REL-5 3-gun NEG.EXIST  
 'I killed that animal without a gun'  
 (lit: 'I killed that animal when gun was not')

#### 4.4.5 Comitative

Comitative is expressed with the preposition nà 'with'.

- (35) ò-jǎ-g                      ó-gèm                      nà   ègùd                      à  
 2ps:HAB-go-IMPFV 14-market with Egut QM  
 'did you go to market with Egut?'

There is no negative comitative form. Instead, the semantic function has to be expressed by a clause:

- (36) N-jǎ-g                      ó-gèm,                      ègùd á-kà-bá  
 1ps:HAB-go-IMPFV 14-market, Egut 3pe-NEG-come  
 'I went to market, Egut didn't come'



#### 4.4.6 Circumstance

Circumstance is expressed with the preposition nà 'with'.

- (37) a. Ñ-nè nà à-kòb k(a) ǝ-bò à-kā-gè  
1-person with 6-dirt on 14-hand 3ps:HORT-NEG-enter  
'a person with dirty hands should not enter'
- b. Ñ-yèn Ñ-nè nà Ñ-tí kǎ Ñ-tàg  
1ps:PFT-see 1-person with 3-money in 9-sack  
'I have seen the person with money in (his) sack'

There is no specific morphological form for the negative circumstance. Instead, the function must be expressed by a clause:

- (38) Ñ-nè Ñ-ñò á-kà-fǝn á-kòb k(a) ǝ-bò  
1-person REL-1 3ps-NEG-have 6-dirt on 14-hand  
'the person who does not have dirt on (their) hand(s)
- kón à-gè mfá  
ABL 3ps:PFV-enter here  
can enter here'

#### 4.4.7 Possessive

The possessive semantic function is expressed in three different types of constructions: 1) those involving possessive pronouns, 2) those involving the associative marker, and 3) those involving the use of a relative-like pronoun (see 5.7.2). The possessive pronouns (see 5.4) agree with the noun class of the possessed noun and follow it as in (39a). However, if the possessor is being contrastively focused, the possessive pronoun precedes the possessed noun as in (39b)

- (39) a. è-gòmé èj-á 'your plantain'  
5-plantain 5-your

- b. ɛj-á    ɛ-gɔ́mé            'your plantain'  
           5-your 5-plantain        'your own plantain'

The associative marker occurs between two nouns and may indicate a possessive relationship. However, it can also be used to express source, quality, quantity, material, contents, and so on. (See Welmers (1963) for further discussion of this marker in Niger-Congo in general.) This marker in other analyses might be referred to as the "genitive" marker. See section 5.9 for details and examples of this marker.

Like the associative marker, the relative-like pronoun (see 5.7.2) occurs between two nouns and can indicate a possessive relationship as well as other relationships (e.g. source, quality, quantity, etc). Consider the following examples:

- (40) a. Ñ-fòṅ Ñ-ñi à-tèm            'the cow of (my) friends'  
           9-cow REL-9 2-friend
- b. ò-ñàm        Ñ-bi á-tèm            'the animals of (my)  
           14-animal REL-14 2-friend friends'
- c. Ñ-jú        Ñ-ñi à-táé            'a house of stone'  
           9-house REL-9 6-rock

The functional difference between the marking of the possessive with the associative marker and its marking with the relative-like pronoun seems to be best accounted for as follows: the associative construction is neutral as to whether it is restrictive or non-restrictive in meaning, but the relative-like pronoun construction is restrictive in meaning. The actual interpretation given an associative

construction depends on the context. Thus, a phrase like that in (41) could be uttered in the context where only one cow resides in the village and the speaker is simply predicating the fact that the cow belongs to friends. But there could also be many cows in the village in which case the speaker might utter (41) in the sense that of all the cows around the village he is looking for that one which belongs to his friends.

(41) Ñ-fòṅ      à-tèm                      'the cow of friends'  
          9-cow    AM    2-friend

By contrast, (40a) would be uttered when (at least potentially) there are many cows in the village and one wants to restrict the discussion or search to the cow which specifically belongs to his friends.

The possessive is a general semantic function which cannot be further divided. Thus, no distinction is made between temporary and permanent possessives, present and past possessives, and alienable and inalienable possessives. Of course, one finds body parts and kinship terms frequently possessed, but it is by no means obligatory. In the case of the other possible distinctions (e.g. past or temporary) adverbial phrases are used to indicate such distinctions.

#### 4.4.8 Quality

Quality is expressed with the preposition nà 'with'.

(42) Ñ-káé    òmé    à-čsíbè              Ñ-jèm    nà    ò-gèb-á-ńbóné  
          1-wife 1:my 3ps:PFV-turn 9-back with 14-please-NOM-heart  
          'my wife returned with happiness'

Negative quality has to be expressed with a clause:

- (43) à-čsɓè            Ñ-jəm, kèn ð-gèb-á-mbéngé            càn  
 3ps:PFV-turn 9-back but 14-please-NOM-heart NEG.EXIST  
 'she returned, but there was no happiness'

#### 4.4.9 Quantity

In the past the culture has not had any equivalents to weight measures, but in recent years the terms pân 'pound' and kílò 'kilo' have been borrowed. However, these are not typical units for measuring goods in market. Instead, goods are sold in various types of groupings depending on the type of good being sold. For example, in the past groundnuts and melon seeds were sold by the isé 'man's clay soup dish'. Today these things are sold by the ńkòb 'cup'. Quantity in terms of cups can be expressed either with a relative clause or with the verb of the relative clause deleted as in (44b). In addition it can be expressed with an associative noun phrase as in (44c).

- (44) a. Ñ-tâg é-rési Ñ-ñi à-sú'í            Ñ-kòb ófó  
 9-sack 5-rice REL-9 9:PFV-fill-C.Foc 9-cup ten  
 'a bag of rice which filled ten cups'
- b. Ñ-tâg é-rési Ñ-ñi Ñ-kòb ófó  
 9-sack 5-rice REL-9 9-cup ten  
 'a bag of rice of ten cups'
- c. kàdê            ɓm Ñ-kòb ' é-rési é-báé  
 give-IMPER 1ps 9-cup AM 5-rice 5-two  
 'give me two cups of rice'

#### 4.4.10 Material

Material as a semantic function of a noun phrase in

relation to a verb is expressed with the preposition nà 'with'.

- (45) à-gbɛ̀            Ì-jù    nà ɔ̀-tòb  
 3ps:PFV-build 9-house with 14-mud  
 'he built the house with mud'

Material as a semantic function of a noun phrase in relation to another noun phrase is expressed with an associative noun phrase or a construction using the relative-like pronoun of 5.7.2.

- (46) a. à-gbɛ̀            Ì-jù ɔ̀-tòb  
 3ps:PFV-build 9-house AM 14-mud  
 'he built a house of mud'
- b. à-gbɛ̀            Ì-jù Ì-ñì ɔ̀-tòb  
 3ps:PFV-build 9-house REL-9 14-mud  
 'he built a house of mud'

Negative material is expressed with a separate clause:

- (47) a. à-gbɛ̀            Ì-jù,    kèn á-kà-kǎg ɔ̀-tòb  
 3ps:PFV-build 9-house but 3ps-NEG-put 14-mud  
 'he built a house, but he didn't put mud on (it)'
- b. à-gbɛ̀            Ì-jù    Ì-jì ɔ̀-tòb ɔ̀án  
 3ps:PFV-build 9-house REL-5 14-mud NEG.EXIST  
 'he built a house without mud'  
 (lit: 'he built a house when mud was not there')

#### 4.4.11 Manner

Manner is expressed in various ways depending on the type of manner and how it must be specifically expressed. Thus, in some cases the preposition nà 'with' is used, in other cases an adverb is used, and in other cases an entire clause might be used. These possibilities are exemplified in (48):

- (48) a. à-gbê                    Ñ-jû      èy-ě    nà    ò-gèb-á-mbóné  
 3ps:PFV-build 9-house 9-3ps with 14-please-NOM-heart  
 'he built his house with happiness'
- b. á-kà-kón            é-kòn    tèbè  
 3ps-NEG-sing 5-song slowly  
 'she did not sing slowly/carefully'
- c. à-kô                    è-bú    à-kí-súm            é-bin  
 3ps:PFV-take 5-time 3ps-CONT-clear 5-farm  
 'he took time clearing (his) farm'  
 'he cleared his farm carefully'

Negative manner in all cases is expressed by a negative verb phrase.

#### 4.4.12 Cause

Cause is expressed with the preposition kă 'in, on, at, to, from'.

- (49) a. à-kêd                    k(a) é-tùm    èj-é  
 3ps:PFT-tire in 5-work 5-3ps  
 'he is tired from his work'
- b. à-kpô                    k(a) ẽ-màné    èj-é  
 3ps:PFV-die in 5-sickness 5-3ps  
 'she died from her sickness'

#### 4.4.13 Purpose

Purpose is expressed in at least three ways: 1) with a serial construction in which the purposive relationship is implicit, 2) with a noun clause introduced by the complementizer, in which case the verb of the noun clause is in the hortative mood, and 3) with an infinitival clause introduced by the preposition kă 'in, on, at, to, from'. These possibilities are exemplified in (50).



- (53) a. è-čì í Ñ-jò 'the head of a dog'  
 5-head AM 9-dog
- b. è-čì Ñ-jì Ñ-jò 'the head of a dog'  
 5-head REL-5 9-dog

#### 4.4.17 Partitive

There is no difference between expressing a partitive and a non-partitive numeral. However, one can make the partitive sense explicit by using a prepositional phrase as an adjunct to the head noun phrase.

- (54) a. à-nè \_ \_ á-báé' á-nàm Ñ-búi  
 2-person 2-two 3pp:PFT-buy 9-goat  
 'two people have bought a goat'  
 'two of the people have bought a goat'
- b. à-nè á-báé' k(a) ě-kàm á-jì á-nàm  
 2-person 2-two in 5-group that-5 3pp:PFT-buy  
 'two people in that group have bought  
 Ñ-búi  
 9-goat  
 a goat'

Clause (54a) can be read either in a partitive or non-partitive sense, whereas (54b) with the explicit reference to the 'group' can only have a partitive sense.

Again, there is no difference between expressing a partitive and a non-partitive quantifier. The typical construction involves the root -tǎd 'other, some'.

- (55) a. à-nè Ñ-bà tǎd á-bà  
 2-person REL-2 other 3pp:PFT-come  
 'some people have come'  
 'other people have come'  
 'some of the people have come'



- b. bi-yù Ñ-bì tǎd í-nǎb  
 8-yam REL-8 other 8:PFT-good  
 'some yams are good'  
 'other yams are good'  
 'some of the yams are good'

The partitive sense can be made explicit by specifying the contrast between two parts.

- (56) a. à-nè Ñ-bà tǎd á-bà, Ñ-bà tǎd  
 2-person REL-2 other 3pp:PFT-come, REL-2 other  
 'some of the people have come, some of them  
 á-ká'-bá  
 3pp-NEG-come  
 have not'
- b. bi-yù Ñ-bì tǎd í-nǎb, Ñ-bì tǎd í-bib  
 8-yam REL-8 other 8:PFT-good, REL-8 other 8:PFT-spoil  
 'some of the yams are good, some of them are spoiled'

Again, there is no formal difference between expressing a partitive and a non-partitive negative quantifier as the following examples indicate.

- (57) a. Ñ-nè \_\_\_ kpè yó-d á-ká-bá  
 1-person even 1-one 3ps-NEG-come  
 'none of the people came'  
 'no person came'  
 'even one of the people/even one person did not come'
- b. è-yù kpè jí-d é-ká-nǎb  
 5-yam even 5-one 5-NEG-good  
 'none of the yams are good'  
 'no yam is good'  
 'even one of the yams/even one yam is not good'

The partitive sense can be made explicit by indicating the group to which the individual item or items belong, as shown in (58).

- (58) a. Ñ-nè ábǒ kpè yó-d á-kǎ-bá  
 1-person 3pp even 1-one 3ps-NEG-come  
 'none of the people came'  
 'not one of them came'  
 'even one person of them did not come'
- b. è-yù kpè jé-d kǎ Ñ-kòb á-ñi é-ká-nǒb  
 5-yam even 5-one in 9-carton that-9 5-NEG-good  
 'none of the yams are good'  
 'not one of the yams in that carton is good'  
 'even one yam in that carton is not good'

Note that the use of the phrase kpè + NOUN/NUMERAL 'even....' requires the use of the negative verb form.

#### 4.4.18 Price

The specification of the price when using verbs such as 'to buy' -nám and 'to sell' -gùdí requires the use of the preposition kǎ 'in, on, at, to, from'.

- (59) a. Ñ-kí-gùdí é-gòmé á-ji kǎ Ñ-wèd é-báé  
 1ps-CONT-sell 5-plantain that-5 at 9-paper 5-two  
 'I'm selling those plantain for 200 francs CFA'
- b. à-nám é-fô kǎ tósèn é-báé  
 3ps:PFV-buy 5-cloth at thousand 5-two  
 'he bought the cloth for 2000 francs CFA'

#### 4.4.19 Value

Value is expressed with the preposition kǎ 'in, on, at, to, from'.

- (60) nám ðm à-kú Ñ-mǎ á-bíg-í  
 buy-IMPER 1ps 6-oil REL-6 6:PFV-enough-C.Foc  
 'buy me oil which is worth  
kǎ Ñ-wèd é-sá  
 at 9-paper 5-three  
 300 francs CFA'

#### 4.4.20 Distance

Distance is expressed with a hypotactic construction in which the verb in the subordinate clause is -sí 'to reach, arrive'.

- (61) Ñ-jên      nà    yê    kpáád Ñ-sí                      à-táé    '   
 lps:PFV-walk with 3ps until lps:PFV-reach 6-stone AM   
 'I walked with him until I reached   
 'I walked with him for.

Ñ'bán    á-ní   
 9-road 6-four   
 four road-stones'   
 four miles'

#### 4.4.21 Extent

Extent is expressed with a relative clause which consists of the verb 'to be' -rí and a predicate nominal specifying the extent.

- (62) à-fôn              ò-kpí      Ñ-bí    ó-rí'    à-jàré              ófó   
 3ps:PFT-have 14-canoe REL-14 14-be 6-footprint ten   
 'he has a canoe which is ten footprints

k(a) ò-rà   
 in 14-length   
 in length'

#### 4.4.22 Concessive

Concessive is not expressed with a simple noun phrase but instead with a hypotactic construction in which the subordinate clause is introduced with kpè nǎn 'even as....'.

- (63) kpè nǎn à-nà-é'                      ánò,    à-bá   
 even as 6:PFV-rain-C.Foc thus, 3ps:PFV-come   
 'even though it rained in that way, he came'

#### 4.4.23 Inclusion

Inclusion is expressed with the preposition nà 'with' and the noun referring to the included item.

- (64) ábǒ fééǒ nà àyùg á'-bá-g  
3pp all with Ayuk 3pp:HAB-come-IMPFV  
'all of them with Ayuk came'  
'everyone including Ayuk came'

#### 4.4.24 Exclusion

Exclusion is expressed with a serial construction in which the verb of the second clause is the negative of -číní 'to surpass'.

- (65) ábǒ fééǒ á'-bá-g                      é-ká'-číní      àyùg  
3pp all 3pp:HAB-come-IMPFV 5-NEG-surpass Ayuk  
'they all came except Ayuk'  
'they all came but did not surpass Ayuk' (=literal)

#### 4.4.25 Addition

Addition is expressed with the preposition nà 'with'.

- (66) à-nè      á-sá      á'-bá-g                      nà      àyùg  
2-person 2-three 3pp:HAB-come-IMPFV with Ayuk  
'three people came in addition to Ayuk'  
'three people came with Ayuk' (=literal)

Note that the expression of addition is identical to the expression of comitative (4.4.5) and inclusion (4.4.23).

#### 4.4.26 Vocative

There is a vocative particle which is postposed to the noun or proper name of the person being called or greeted: 'óó [lóól]. This particle is optional, but it is frequently used, especially when the person is some distance away from the speaker: N-sé 'óó 'father!', àyùg 'óó 'Ayuk!'

In addition, there is a vocative particle which is postposed to the appropriate phrase when greeting someone from a distance or in order to be heard over a loud noise. The particle is é [é], and it occurs in such expressions as ó-bà à é [óβ'él] 'welcome (lit: 'have you come!?)', ó-ńàṁè à é [óńàṁé] 'good morning (lit: 'have you wakened!?)', and ń-kùb à é [ńkùβé] 'hello (lit: 'have I greeted!?)'.

#### 4.4.27 Citation and label forms

There are no special citation or label forms. The citation of some verb forms, however, can be problematic. Generally verbs can be cited in their imperative forms, but in the case of stative verbs it is often semantically unacceptable to cite them as imperatives. Instead, they can be cited either in the negative or the continuous forms in order to guarantee that the correct underlying tone is cited.

#### 4.5 The expression of locative semantic functions

Locative semantic functions are expressed by 1) a small set of deictic locative pronouns, 2) a set of prepositional relators, and 3) verbal expressions. The small set of deictic locative pronouns are specified in (67).

(67)	<u>Deictic Locative Pronouns</u>		
	here	there	distal
specific location	ṁfá	áfò	ṁfò
general location	ṅgá	ágò	ṅgò

The forms in (67) could be further analyzed as follows:

(68) prefix of addressee orientation	{	<u>N-</u> not next to addressee
		<u>á-</u> potentially next to addressee
locative root	{	<u>-f-</u> specific location
		<u>-g-</u> general location
distance	{	<u>-á</u> near
		<u>-ò/ò</u> far (tone differentiates how far)

These pronouns occur independently of any preposition and they do not govern noun class agreement as in a "standard" Bantu language:

- (69) a. à-kí-jǐ      áǵò  
 3ps-CONT-go there:gen.loc  
 'she is going over there'
- b. báǵ      ǵfá  
 come-IMPER here:spec.loc  
 'come here (to this spot)'
- c. à-rǐ      ǵǵò  
 3ps-be distal:gen.loc  
 'she is way over there'
- (70) a. ǵfá      é-nòb  
 here:spec.loc 5:PFT-good  
 'here is good'
- b. áǵò      é-bìb  
 there:gen.loc 5:PFT-bad  
 'there is bad'

The prepositions are of two types, namely simple and complex. The simple prepositions for locatives are kǎ and nà 'with'. The simple preposition kǎ also combines with various nouns to form complex prepositions. These combinations

are detailed below. In addition, the noun N-bá 'road' may also combine with the two nouns ò-čí 'face' and N-jèm 'back' to form complex prepositions. These are also detailed below.

Finally, in certain cases there is no locative pronoun or preposition which serves to express a given function. Instead a verbal expression is used. These cases are also detailed in the appropriate places below.

#### 4.5.1 General location and direction

General location and direction are expressed with the simple preposition kǎ 'in, on, at, to, from'.

- (70) a. a-rĩ kǎ N-jù 'he is at the house'  
           3ps-be at 9-house
- b. à-kí-jĩ kǎ N-jù 'he is going to the  
           3ps-CONT-go at 9-house house'
- c. à-dǎ kǎ N-jù 'he came from the  
           3ps-come:from at 9-house house'

However, the expression of motion past something is expressed with the verb -číń 'to pass' without any preposition.

- (71) à-kí-číń N-jù 'he is passing/going  
           3ps-CONT-pass 9-house past the house'

#### 4.5.2 Proximate location and direction

Proximate location and direction are expressed with the adverbial expression kpídí-kpídí 'near, close' and the preposition nà 'with'.

- (72) a. a-rĩ kpídí-kpídí nà N-jù á-ńi  
           3ps-be near with 9-house that-9  
           'he is near (with) that house'

- b. à-kí-jǐ      kpídí-kpídí nà      N-jù      á-ñi  
 3ps-CONT-go near                      with 9-house that-9  
 'he is going near (with) that house'  
 'he is going near to that house'
- c. à-dǎ              kpídí-kpídí nà      N-jù      á-ñi  
 3ps-come:from near                      with 9-house that-9  
 'he came from near (with) that house'
- d. à-čín              kpídí-kpídí nà      N-jù      á-ñi  
 3ps:PFV-pass near                      with 9-house that-9  
 'he passed near (with) that house'

The adverbial kpídí-kpídí 'near, close' is derived from the verb root -kpídí 'to be near, close'. This verb root is also used to express proximate location or direction, and is conjugated like any other verb:

- (73) a. à-kpídì              kǎ N-jù                      'he is near to the house'  
 3ps:PFT-near at 9-house
- b. à-kí-jǐ              à-kí-kpídí              kǎ N-jù  
 3ps-CONT-go 3ps-CONT-near at 9-house  
 'he is going near to the house'  
 'he is going, he is nearing the house' (=literal)

Note that when the verb root -kpídí 'to be near, close' is used, the simple preposition kǎ 'in, on, at, to, from' is also used.

#### 4.5.3 Interior location and direction

Interior location and direction is expressed with the preposition kǎ 'in, on, at, to, from' and the noun è-tím 'inside' (note this noun derives historically from the Proto-Ekoid \*-tém 'heart') plus the associative marker.



- (74) a. à-rĩ k(a) ɛ́-tím ' N-jù  
 3ps-be in 5-inside AM 9-house  
 'she is inside the house'
- b. à-kí-jĩ k(a) ɛ́-tím ' N-jù  
 3ps-CONT-go in 5-inside AM 9-house  
 'she is going into the house'
- c. à-dě k(a) ɛ́-tím ' N-jù  
 3ps-come:from in 5-inside AM 9-house  
 'she came from inside the house'  
 'she came out of the house'
- d. à-kí-čín k(a) ɛ́-tím ' N-jù á-ñi  
 3ps-CONT-pass in 5-inside AM 9-house that-9  
 'she is passing inside that house'  
 'she is passing through that house'

Note that ɛ́-tím 'inside' optionally occurs without a noun in association with it:

- (75) à-kí-jĩ k(a) ɛ́-tím 'she is going inside'  
 3ps-CONT-go in 5-inside

#### 4.5.4 Exterior location and direction

Exterior location 'at rest' is expressed with the preposition kǎ 'in, on, at, to, from' and the noun ɛ́-ré 'outside', although some people in the Eyumojok-Ndebaya sub-dialect use the EE noun ɛ́-yátég 'outside' instead. Both of these nouns are optionally in association with another noun:

- (76) a. à-gím k(a) ɛ́-ré  
 3ps-be:standing at 5-outside  
 'she is standing outside'
- b. á-kí-gímí k(a) ɛ́-ré ' N-jù  
 3pp-CONT-stand at 5-outside AM 9-house  
 'they are standing (up) outside (of) the house'

Exterior location involving 'motion to' something is

expressed identically to distance in 4.4.20, with a hypotactic construction as in (61). Exterior location involving 'motion from' something is expressed paratactically with a verb of motion such as -màgè 'to leave'

- (77) à-jǎ-g                      à-mágè                      Ñ-jû                      èy-ě  
 3ps:HAB-go-IMPFV    3ps:PFV-leave    9-house    9-3ps  
 'she went and left her house'  
 'she went away from her house'

Exterior location involving 'motion past' something is expressed identically to general location in (71). This means that (71) has a third and more specific reading: 'he is passing outside of the house'.

#### 4.5.5 Anterior location and direction

Anterior location and direction are expressed by a complex preposition consisting of the nouns Ñ-bá 'road' and è-čì 'face' in associative relationship with one another, and then this complex preposition in associative relationship with a following noun, but only optionally.

- (78) a. à-rĩ    Ñ-b(a) ` è-čì    ` Ñ-jû  
 3ps-be    9-road AM    14-face AM    9-house  
 'she is in front of the house'
- b. à-jǎ-g                      Ñ-b(a) ` è-čì                      ` Ñ-jû  
 3ps:HAB-go-IMPFV    9-road AM    14-face AM    9-house  
 'she went in front of the house'
- c. à-dǎ                      Ñ-b(a) ` è-čì                      ` Ñ-jû,  
 3ps-come:from    9-road AM    14-face AM    9-house  
 'she came from in front of the house,  
 à-bá-g  
 3ps:HAB-come-IMPFV  
 and came'

- d. à-čín                    Ñ-b(a) ` š-či ` Ñ-jû  
 3ps:PFV-pass 9-road AM 14-face AM 9-house  
 'she passed in front of the house'

The optionality of the final noun is exemplified in (79).'

- (79) a. à-rĩ    Ñ-b(a) ` š-či  
 3ps-be 9-road AM 14-face  
 'she is in front'
- b. à-jǎ-g                    Ñ-b(a) ` š-či  
 3ps:HAB-go-IMPV 9-road AM 14-face  
 'she went in front'  
 'she went on ahead'

#### 4.5.6 Posterior location and direction

Posterior location is expressed by a complex preposition consisting of the preposition kǎ 'in, on, at, to, from' and the noun Ñ-jèm 'back'. This preposition kǎ Ñ-jèm 'behind' can be substituted for the expression Ñ-b(a) š-či 'in front' in the examples in (78) to form the correlative sentences 'she is behind the house', 'she went behind the house', 'she came from behind the house' and 'she passed behind the house'. In these cases a noun is in obligatory associative relationship with the noun Ñ-jèm 'back'. In order to express the correlative sentences to those in (79) the complex preposition consisting of the two nouns Ñ-bá 'road' and Ñ-jèm 'back' is used. Thus, (79a) would be à-rĩ Ñ-bá Ñ-jèm 'she is behind'.

#### 4.5.7 Superior location, superior-contact and surface

Superior location and direction, superior-contact and surface location and direction are all expressed in the same way. The expression involves a complex preposition consisting of the preposition kǎ 'in, on, at, to, from' and the noun

ó-só' 'heaven, sky'. The noun is in associative relationship with the prepositional object.

- (80) a. è-bèg é-ré' k(a) ð-só' ' N-jù  
 5-eagle 5-be at 14-heaven AM 9-house  
 'the eagle is above/over/on the house'
- b. è-bèg é-já'-g k(a) ð-só' ' N-jù  
 5-eagle 5:HAB-go-IMPV at 14-heaven AM 9-house  
 'the eagle went above/on/onto the house'
- c. è-bèg é-dú' k(a) ð-só' ' N-jù  
 5-eagle 5-come:from at 14-heaven AM 9-house  
 'the eagle came from above/off of the house'
- d. è-bèg é-ðin k(a) ð-só' ' N-jù  
 5-eagle 5:PFV-pass at 14-heaven AM 9-house  
 'the eagle passed over/across the house'

#### 4.5.8 Inferior location and direction, inferior-contact

Inferior location and direction and inferior-contact are all expressed in the same way. The expression involves a complex preposition consisting of the preposition kă 'in, on, at, to, from' and the noun ó-séde 'lower part/section'. The noun is in associative relationship with the prepositional object.

- (81) a. è-rúnúm é-ré' k(a) ð-séde ' N-kòb  
 5-skink 5-be at 14-lower AM 9-carton  
 'the skink is below/under the carton'
- b. è-rúnúm é-já'-g k(a) ð-séde ' N-kòb  
 5-skink 5:HAB-go-IMPV at 14-lower AM 9-carton  
 'the skink went below/under the carton'
- c. è-rúnúm é-dú' k(a) ð-séde ' N-kòb  
 5-skink 5-come:from at 14-lower AM 9-carton  
 'the skink came from below/under the carton'

- d. è-rúnúm é-cín k(a) ɔ-sédé ` N-kǎb  
 5-skink 5:PFV-pass at 14-lower AM 9-carton  
 'the skink passed below/under the carton'

#### 4.5.9 Lateral location and direction, lateral-contact

Lateral location and direction and lateral-contact are all expressed in the same way. The expression involves a complex preposition consisting of the preposition kǎ 'in, on, at, to, from' and the noun N-kpè 'side'. The noun is in associative relationship with the prepositional object.

- (82) a. é-kábúgí é-ré' kǎ N-kpè ` N-jû  
 5-lizard 5-be at 9-side AM 9-house  
 'the lizard is beside/on the side of the house'
- b. é-kábúgí é-já'-g kǎ N-kpè ` N-jû  
 5-lizard 5:HAB-go-IMPFV at 9-side AM 9-house  
 'the lizard went beside/onto the house'
- c. é-kábúgí é-dú' kǎ N-kpè ` N-jû  
 5-lizard 5-come:from at 9-side AM 9-house  
 'the lizard came from beside/off of the house'
- d. é-kábúgí é-čín kǎ N-kpè ` N-jû  
 5-lizard 5:PFV-pass at 9-side AM 9-house  
 'the lizard passed past/along the house'

#### 4.5.10 Citerior location and direction, citerior contact

The term 'citerior' is taken from Comrie and Smith (1977: 31), as are all of the above semantic terms, and is used in reference to the 'side' of an object. Citerior location and direction and citerior contact are all expressed in the same way. Their expression involves a complex preposition which consists of the preposition kǎ 'in, on, at, to, from' and the noun è-bǎd 'half, section, region'. The noun is in associative

relationship with the object of the preposition.

- (83) a. bì-yù í-ré' k(a) ě-bǎd ' N-jù N-jí  
 8-yam 8-be at 5-section AM 9-house this-5  
 'the yams are on this side of the house'
- b. N-jô à-jǎ-g k(a) ě-bǎd ' N-jù N-jí  
 9-dog 9:HAB-go-IMPFV at 5-section AM 9-house this-5  
 'the dog went to this side of the house'
- c. N-jô à-dǎ k(a) ě-bǎd ' N-jù N-jí  
 9-dog 9-come:from at 5-section AM 9-house this-5  
 'the dog came from this side of the house'
- d. N-jô à-čín k(a) ě-bǎd ' N-jù N-jí  
 9-dog 9:PFV-pass at 5-section AM 9-house this-5  
 'the dog passed on this side of the house'

Note that the demonstrative pronoun N-jí 'this' concords with the noun ě-bǎd 'half, section, region' rather than with the prepositional object N-jù 'house'. In this case the demonstrative serves to indicate which side of the house is in question, namely, 'this proximate'. However, if the demonstrative modifies the 'house' rather than the 'side', then a demonstrative concurring with the prepositional object would be used. Compare (84) with (83d):

- (84) N-jô à-čín k(a) ě-bǎd ' N-jù N-íí  
 9-dog 9:PFV-pass at 5-section AM 9-house this-9  
 'the dog passed on the side of this house'

#### 4.5.11 Ulterior location and direction

Ulterior location and direction are expressed identically to inferior location and direction and inferior-contact of 4.5.8, with kǎ 'in, on, at, to, from' and ó-sédé 'lower part/section' forming a complex preposition. However, in this

case the complex preposition means 'down from' or 'beyond':

- (85) Ñ-jũ àmé à-rĩ k(a) ǔ-sédé ' ó-gè̀m  
9-house 9:my 9-be at 14-lower AM 14-market  
'my house is down from/beyond the market'

#### 4.5.12 Ulterior-citerior

Comrie and Smith (1977:32) term this 'ulterior-contact' but it is here termed 'ulterior-citerior' because it does not involve the notion of touching an object (i.e. 'contact') so much as the notion of being on and moving in relation to the other side of an object (i.e. 'ulterior-citerior').

Ulterior-citerior is expressed identically to posterior location and direction of 4.5.6, with kǎ 'in, on, at, to, from' and Ñ-jè̀m 'back' forming a complex preposition. However, in this case it means 'on the other side of' or 'across' or 'from across':

- (86) à-jǎ-g kǎ Ñ-jè̀m ' à-yà  
3ps:HAB-go-IMPFV at 9-back AM 6-river  
'he went across the river'

#### 4.5.13 Medial location

Medial location, whether it means between two items or among a number of items, is expressed with a complex preposition. The preposition consists of kǎ 'in, on, at, to, from' and the noun ě-tínántì 'middle'.

- (87) a. à-rĩ k(a) ě-tínántì ' áyùg nà óbí  
3ps-be at 5-middle AM Ayuk and Obi  
'he is between Ayuk and Obi'
- b. à-rĩ k(a) ě-tínántì ' é-kàm á-jì  
3ps-be at 5-middle AM 5-group that-5  
'he is among/in the middle of that group'

#### 4.5.14 Optionality of the object of the complex preposition

In 4.5.3 through 4.5.6 it was noted that the object of the complex preposition could be optionally absent. However, this is also true of the complex prepositions presented in 4.5.7 through 4.5.13: the complex preposition may occur without the prepositional object. Consider the following examples:

(88) a. Compare (80a)

è-bêg é-rí' k(a) ǝ-só'  
5-eagle 5-be at 14-heaven  
'the eagle is above'

b. Compare (81a)

è-rúnúm é-rí' k(a) ǝ-sédé  
5-skink 5-be at 14-lower  
'the skink is below/underneath'

c. Compare (82a)

é-kábúgí é-rí' kǎ Ñ-kpè  
5-lizard 5-be at 9-side  
'the lizard is beside/to the side'

d. Compare (83a)

bì-yù í-rí' k(a) ǝ-bǎd Ñ-jí  
8-yam 8-be at 5-section this-5  
'the yams are on this side'

#### 4.5. Circumferential location and direction

Circumferential location is expressed with the stative verb root -fád 'to be around' when it involves something at rest, but it is expressed with the transitive verb root -fádé 'to go round' if it involves something in motion.



- (89) a. Ì-fìb̃      à-fḥd                      k(a) ḗ-tí  
           9-snake 9:PFT-be:around      at    5-tree  
           'the snake is wrapped around the tree'
- b. Ì-gbḗ      à-fḥdḗ                      Ì-jũ  
           9-leopard 9:PFV-go:around    9-house  
           'the leopard went round the house'

#### 4.5.16 Citerior-anterior

Citerior-anterior is expressed identically to anterior location and direction of 4.5.5, with a complex preposition consisting of Ì-bá 'road' and ḥ-čí 'face' in associative relationship to one another. However, in this case it means 'opposite' or 'from opposite' or 'on the other side from':

- (90) Ì-jũ      ày-ǎ      à-rí Ì-b(a) ḥ-čí      Ì-jũ      àmé  
           9-house 9-your 9-be 9-road AM 14-face AM 9-house 9:my  
           'your house is opposite my house'

#### 4.5.17 Location and long objects

There are no special expressions for motion past a long object. Instead, the type of location is expressed in one of the ways noted above: interior location in 4.5.3; exterior location in 4.5.4; superior, superior-contact and surface location in 4.5.7; inferior and inferior-contact location in 4.5.8; and lateral location in 4.5.9.

#### 4.6 The expression of temporal semantic functions

Before Ejagham speakers came into contact with Europeans under German and British colonial rule, the basic temporal functions were expressed in relation to periods of the day, celebrations such as the harvest festival and funerals, and

seasons of the year. Such concepts as the hour of the day, the day of the week, the month of the year, and the year (e.g. '1981') came into the language only after contact with Europeans. Generally, these concepts are expressed with English loans, but there are a few instances of non-borrowed expressions, and there are some individuals who are trying to establish a non-borrowed nomenclature for such temporal concepts.

Basic temporal expressions include the following:

- (91)
- |    |                |  |
|----|----------------|--|
| a. | m̄fá-m̄fá Ñ-jí | 'now' (lit: 'this here-here')          |
| b. | é-gé ~ é-yé    | 'today'                                |
| c. | ó-jó'          | 'tomorrow'                             |
| d. | ò-fú/Ñ-fín     | 'day/days'                             |
| e. | è-fín          | 'daylight'                             |
| f. | é-mènémèné     | 'long ago'                             |
| g. | Ñ-n̄àm ó-só'   | 'month/moon' (lit: 'animal of heaven') |
| h. | è-yâ/Ñ-yâ      | 'year/years'                           |

Other temporal expressions are built on these expressions:

- (92)
- |    |  |                                     |
|----|--|-------------------------------------|
| a. | tíg à-bá-g   | <u>kǎ Ñ-fín é-báé</u>               |
|    | FUT 3ps:HAB-come-IMPFV at 9-days 9-two                 |                                     |
|    | 'he will come in two days'                             |                                     |
| b. | à-bâ   | <u>Ñ-fín é-gé à-ká</u> <u>é-báé</u> |
|    | 3ps:PFV-come 9-days 5-today 9:PFV-remain/stay 5-two    |                                     |
|    | 'he came two days ago'                                 |                                     |
| c. | à-ká   | <u>Ñ-yâ</u> <u>é-sá</u>             |
|    | 3ps:PFV-remain/stay 9-year 9-three                     |                                     |
|    | 'he is three years old' (lit: 'he stayed three years') |                                     |

#### 4.6.1 General temporal functions

##### 4.6.1.1 Time of day

The time of day can be expressed in two ways. First, an English loan can be used such as tɛn òklɔ̃g '10 o'clock', or simply tɛn '10 o'clock'. Secondly, the term ń-kánínká 'bell' may be used. This term is an Efik borrowing and has the meaning 'clock' plus the derived meaning 'wristwatch' in the expression ń-kánínká ò-bɔ̃ (lit: 'bell of hand/arm'). By association, the term now also means 'hour', so that one can express the time of day by saying ń-kánínká ófó '10 o'clock'. In this case the modifying numeral is the Ejagham ófó '10' rather than the English borrowing tɛn '10'.

- (93) a. à-kí-jǐ            kǎ tɛn òklɔ̃g  
          3ps-CONT-go at 10 o'clock  
          'he is going at 10 o'clock'
- b. à-čébé            ń-jèm kǎ ń-kánínká      é-báé  
          3ps:PFV-turn 9-back at 9-bell/clock 9-two  
          'he returned at two o'clock'
- c. ń-kánínká      é-rɔ̃n à-sí....  
          9-bell/clock 9-five 9:PFT-reach  
          'five o'clock has reached/it's five o'clock....'

The English borrowing á-wà 'hour' is generally used to refer to a duration of time rather than to a specific hour, as indicated in the following example.

- (94) à-číg            á-wà      á-ní  
          3ps:PFV-wait 6-hour 6-four  
          'he waited for four hours'

#### 4.6.1.2 Period of day

There is a set of non-borrowed (at least, non-borrowed from English) terms which are used for various periods of the day. The term ò-fú 'day' also means 'morning', that period from the rising of the sun to midday. The term Ñ-čĕn 'afternoon' refers generally to the period from midday to about four o'clock in the afternoon. The term ĕ-gù 'evening' refers to the period from four o'clock in the afternoon until complete darkness. The term à-tú 'night' refers to the period from about seven o'clock at night to sunrise. There is one derived term: ò-fú ò-fú 'early morning', indicating the period before the sun has risen above the horizon. However, this period can also be referred to simply as ò-fú 'morning'.

Unlike the time of day, which is usually marked with the preposition kǎ 'in, on, at, to, from', the period of day is marked with the preposition nà 'with'.

- (95) a. Ñ-kí-jǐ      n(a) ò-fú  
lps-CONT-go with 14-morning  
'I'm going in the morning'
- b. à-čǎbè      Ñ-jèm n(a) à-tú  
3ps:PFV-turn 9-back with 6-night  
'he returned at night'

Each of these periods of day may have its inception expressed by a specific verb. Each period collocates with a different verb.

- (96) a. ò-fú      ó-čĕ      'the morning/day has dawned'  
14-morning 14:PFT-dawn

- b. Ñ-čĕn à-kúì  
 9-afternoon 9:PFT-mature  
 'the afternoon has matured/begun (= midday)'  
 12.00 hours
- c. è-gù é-sì  
 5-evening 5:PFT-reach  
 'evening has reached/begun (=about 4 o'clock)'  
 16.00 hours
- d. à-tú á-ñàg  
 6-night 6:PFT-black/dark  
 'the night has blackened/darkened/begun (=about  
 7 o'clock)'  
 19.00 hours

Note that the 'inception' of a period of the day has to be taken in its broadest sense. The actual time to which the inceptive expression refers is not rigidly fixed. Instead, it may be used any time within the first couple of hours of the period.

#### 4.6.1.3 Day of the week

Days of the week are expressed with English loan words. They occur within a prepositional phrase marked by kǎ and generally (but not always) stand in an associative relationship with the term ò-fú 'day'. The loans function as nouns.

- (97) a. k(a) ò-fú ' mǒndè 'on Monday'  
 at 14-day AM Monday
- b. kǎ mǒndè 'on Monday'  
 at Monday

There are a couple of terms which are not borrowed from English and which are frequently used to refer to specific days of the week. The terms include ò-fú-íkóbàsì 'Sunday (lit: 'day-of-church')', with the term íkóbàsì 'church' being

a loan from Efik. Others refer to 'Sunday' as ò-fú-óyóá-bíjì (lit: 'the-day-of-resting-of-the-body'). Clearly, such terms are of recent origin, being innovated sometime during the time of German and British colonial rule.

#### 4.6.1.4 Month of the year

Months of the year are also generally expressed with English loan words which function as nouns. They also are generally marked with the preposition kǎ 'in, on, at, to, from'. Usually, the loan word functions as the prepositional object, but it may also stand in an associative relationship with the noun Ñ-ñàm ɔ́-só' 'month', or the relationship may be expressed with a construction using the relative-like pronoun of 5.7.2.

- (98) a. kǎ jáñwàrì 'in January'  
           at January
- b. kǎ Ñ-ñàm=ɔ́-só' ` méì 'in the month of May'  
           at 9-month      AM May
- c. kǎ Ñ-ñàm=ɔ́-só' Ñ-ñì jûn 'in the month of June'  
           at 9-month      REL-9 June

There are a couple terms which are not borrowed from English and which seem to have been in use for some time since there is some agreement on their use and meaning. The terms include: è-fúbá-ákád 'March (lit: 'that-which-heats-feet')', the hottest month of the year; and à-yé<sup>í</sup>b-átú 'October (lit: 'water-of-the-night')', the last full month of rainy season and the month when it usually rains at night.

#### 4.6.1.5 Year

Years are referred to with English numerals. This means that those speakers who use years productively must learn the English system of number formation. But those who use only a few different years as reference points need only memorize those few different years and do not need to learn the English system of number formation.

The year can be referred to either as a simple noun acting as an adverbial complement to the verb, or it may be marked with the preposition kǎ 'in, on, at, to, from'.

- (99) a. Ñ-bá                    ñfá náìntìn-sèvèntì-fô  
lps:PFV-come here nineteen-seventy-four  
'I came here in 1974'
- b. è-rógè                    kǎ náìntìn-sèvèntì-éìd  
lpp:PFV-begin at nineteen-seventy-eight  
'we began in 1978'

#### 4.6.1.6 Festivals

The Ejagham traditionally had a harvest festival which happened to coincide with the beginning of the dry season and the Western festival of Christmas. This festival was referred to as ò-kábáríéúà. This term has now come to be synonymous with Christmas. The etymology of the word is obscure. Some suggest that it is an Efik loan (not yet confirmed) and others suggest it is a non-borrowed term.

Other festivals such as the 'Day of National Independence' and 'Easter' are referred to with English loans: namely, ò-fú twéntìèd méì 'day of 20th May (National Independence)', and ístà 'Easter'.

All festivals are marked with the preposition kǎ 'in, on, at, to, from': k(a) ɔ̃-kábárisúà 'on Christmas', k(a) é-yà è-fè 'on New Year's (lit: 'at year new')', and so on.

#### 4.6.1.7 Seasons

There is a set of non-borrowed terms used to refer to the various seasons.

- (100) a. ò-yùm 'dry season (mid-November through April)'  
 b. è-nàè 'rainy season (May through mid-November)'  
 c. è-kǒg 'harmattan (usually first months of dry season)'  
 d. è-čénè 'short dry season of few days in rainy season'

The various seasons are marked with the preposition nà: n(a) ò-yùm 'in dry season', n(a) è-nàè 'in rainy season',

#### 4.6.1.8 The use of kǎ and nà in temporal expressions

In the discussion of temporal functions in 4.6.1, the comitative preposition nà 'with' is used with non-borrowed temporal concepts, while the locative preposition kǎ 'in, on, at, to, from' is used with borrowed temporal concepts. This indicates that the use of the locative preposition kǎ 'in, on, at, to, from' is probably a calque, serving as a copy of the locative prepositions used in English for these temporal concepts. Compare the following temporal expressions:

- |       |                |  |
|-------|----------------|--|
| (101) | <u>English</u> | <u>Ejagham</u>   |
| a.    | at two o'clock | <u>kǎ</u> N-kánínká é-báé<br>* <u>nà</u> N-kánínká é-báé |
| b.    | on Thursday    | k(a) ɔ̃-fú tǒrzdè<br>*n(a) ò-fú tǒrzdè                   |



c. in January	kǎ N-ñàm-ósó' ` jáñùwàri *nà N-ñàm-ósó' ` jáñùwàri
d. at night	*k(a) ǎ-tú n(a) à-tú
e. in rainy season	*k(a) ẽ-nàè n(a) è-nàè

In (101a), (101b) and (101c), with the borrowed concepts of the 'hour of the day', 'the day of the week', and 'the month of the year', the locative preposition kǎ is acceptable while the comitative preposition nà is not. But in (101d) and (101e), with the non-borrowed concepts of 'the period of the day' and 'the season of the year', the comitative preposition nà is acceptable while the locative preposition kǎ is not.

#### 4.6.2 Frequentative

Frequentative expressions such as 'on Mondays' do not have to be distinguished from non-frequentative expressions such as 'on Monday'. However, the frequentative concept can be made explicit by placing the appropriate noun in the adverbial expression kpè bàgá 'whatever (lit: 'even which....')'. Thus, one could say kpè bàgá mǒndè 'every Monday (lit: 'even which Monday')' instead of kǎ mǒndè 'on Monday(s)'.

#### 4.6.3 Punctual-future

Usually punctual-future is expressed in a general way as in (102a). But in the unusual case where the punctual-future is made specific, it may be specified either with a conditional clause as in (102b) or with a prepositional phrase introduced by kǎ 'in, on, at, to, from' as in (102c) and (102d).

- (102) a. Ñ-ké'-bá 'I'm coming'  
 lps-CONT-come
- b. è-bú á-wà á-báé á-čín, tíg Ñ-bá-g  
 5-time 6-hour 6-two 6:COND-pass, FUT lps:HAB-come-  
 IMPFV  
 'when two hours have passed, I will come'
- c. tíg Ñ-bá-g k(a) ă-wà ' Ñ-kánínká é-báé  
 FUT lps:HAB-come-IMPFV in 6-hour AM 9-bell 9-two  
 'I will come in two hours'
- d. tíg è-jă-g k(a) ě-jùm ' Ñ-kánínká é-báé  
 FUT lpp:HAB-go-IMPFV in 5-thing AM 9-bell 5-two  
 'we will go in about two hours/something of two  
 hours'

#### 4.6.4 Punctual-past

The punctual-past is expressed with a noun phrase which functions as an adverbial phrase within the clause.

- (103) Ñ-sí mǎ fá è-jùm ' á-wà á-báé  
 lps:PFV-reach here 5-thing AM 6-hour 6-two  
 'I reached here (something like) two hours ago'

#### 4.6.5 Duration

Duration is expressed with a noun phrase which functions as an adverbial phrase within the clause.

- (104) a. à-kúmì ágò Ñ-yā é-sá  
 3ps:PFV-sit there 9-year 9-three  
 'she lived there for three years'
- b. tíg Ñ-kā mǎ fá ǎ-gèm bǎ-d  
 FUT lps:PFV-stay/remain here 14-market 14-one  
 'I will stay here for one week'

#### 4.6.6 Anterior-duration-past/future

Anterior-duration-past and anterior-duration-future are expressed in the same way. Both involve the use of the

conjunction kpád tà 'until' and a prepositional phrase with the preposition kǎ 'in, on, at, to, from'.

- (105) a. è-jũm N̄-jĩ é-fáb'-é ǎn kpád tà  
 5-thing REL-5 5:PFV-happen-C.Foc NEG.EXIST until  
 'nothing happened until Monday (lit: 'the thing  
 k(a) ǎ-fú ' mǎndè  
 at 14-day AM Monday  
 which happened was not until the day of Monday')'
- b. á-bó'-sédé ǎm kpè è-jũm kpád tà  
 3ps-NEG.IMPFV-say 1ps even 5-thing until  
 'he will not tell me a thing until  
 k(a) ǎ-fú ' mǎndè  
 at 14-day AM Monday  
 Monday'

#### 4.6.7 Posterior-duration-past

Posterior-duration-past is expressed with the preposition kǎ 'in, on, at, to, from' in conjunction with the verb -rógè 'to begin'.

- (106) rógè kǎ mǎndè, N̄-kà-yén yê  
 begin-IMPER at Monday, 1ps-NEG-see 3ps  
 'since Monday, I have not seen her (lit: 'beginning  
 with Monday, I have not seen her')'

This temporal function can also be expressed with a subordinate clause.

- (107) N̄-jĩ mǎndè à-ǎín'-í, N̄-kà-yén yê  
 REL-5 Monday 9:PFV-pass-C.Foc 1ps-NEG-see 3ps  
 'since Monday has passed, I have not seen her'

#### 4.6.8 Posterior-duration-future

Posterior-duration-future is expressed either with a prepositional phrase introduced by the preposition kǎ 'in,

on, at, to, from' as in (108a), or by a conditional clause as in (108b).

- (108) a. rógè            kǎ mǒndè,      tíg Ì-kúmi      òfá  
           begin-IMPER at Monday,    FUT    1ps:PFV-sit here  
           'beginning on Monday, I will live here'
- b. è-bú    mǒndè á-sí,            tíg à-bá-g  
           5-time Monday 9:COND-reach,    FUT    3ps:HAB-come-IMPV  
           'when Monday reaches/comes, I will come'

#### 4.6.9 Anterior-general

Anterior-general is expressed with a clause introduced by the conjunction kèn 'then, before, but'.

- (109) Ì-yim        è-túm á-jì    kèn    mǒndè à-sí  
           1ps:PFT-do 5-work that-5 before Monday 9:PFV-reach  
           'I had done that work before Monday came'

#### 4.6.10 Posterior-general

Posterior-general is expressed in the same way as posterior-duration-future, by using a conditional clause as in (108b).

#### 4.6.11 Point in period-past

Point in period-past is expressed by using a verb in the perfective aspect and a prepositional phrase introduced by the preposition kǎ 'in, on, at, to, from'. The prepositional object is a temporal expression (noun) which is modified by a relative clause containing the verb -cín 'to pass'. This verb expresses the notion of past time.

- (110) a. à-bá            òfá k(a) ǎ-wà    á-báé Ì-má    á-čín-í  
           3ps:PFV-come here at    6-hour 6-two REL-6 6:PFV-pase-  
           'he came here in the two hours which                    C.Foc  
           passed'



from count nouns except that they do not have a variation between a singular and plural form. Instead, they have one, invariable form. There is no distinction between a collective and distributive plural, and singulatives cannot be formed from the collective nouns.

The actual marking of number is detailed in 4.8 under 'noun classes and genders' since the number system is an integral part of the noun class system. The integration of foreign words within this system is also discussed in section 4.8.

#### 4.8 Noun classes and genders

##### 4.8.1 The function and formal marking of classes

The language has nine noun classes which function to mark the number of the noun and its gender. The markers of the classes are nominal prefixes which are cognate with Proto-Bantu noun prefixes (cf. Meeussen 1967 for Proto-Bantu forms). Because they are cognate with Proto-Bantu forms they are numbered here according to their cognate Proto-Bantu noun class.

In the table in (113) the noun class prefixes are listed as well as the distinctive concording tone and consonant of the given class. Note that there are a number of gaps in the numbering of the noun classes. Some of these gaps were already present in Proto-Ekoid (Watters unpublished). The classes which were absent in Proto-Ekoid include 11, 12, 13,

16, 17 and 18. In the case of Ejagham the following mergers have taken place since the time of Proto-Ekoid in order to form the present nine class system: 3 and 4 have merged, 5 and 7 have merged, 9 and 10 have merged, and 14 and 15 have merged<sup>6</sup>.

(113) Noun Class Markers

<u>Class</u>	<u>Prefix</u>	<u>Concord tone</u>	<u>Concord consonant</u>
1	N-	`	w, ñ
2	a-	ˊ	b
3	N-	ˊ	m
5	ɛ-	ˊ	j
6	a-	ˊ	m
8	bi-	ˊ	b
9	N-	`	y, ñ
14	ɔ-	ˊ	b
19	i-	ˊ	f

The only variation in the segmental shape of the prefixes occurs with the homorganic nasal prefixes N- (see 2.1.3 for details), and the prefixes ɛ- of noun class 5 and ɔ- of noun class 14 (see 3.1.1.3 for details). The tone of the noun prefix is usually low. However, for approximately a sixth of the nouns the prefix tone is high. There are also three nouns with a falling tone on the prefix. This use of high and falling tones on noun prefixes contrasts with the typical Bantu noun prefix which is marked only with low tone.

- (114) a. è-kúí 'red body paint'  
 b. é-kúí 'forest'  
 c. ê-kâ 'owl'

The concord tone and concord consonant listed in (113) will be discussed and illustrated in chapter 5 on pronouns. These have been given in (113) in part to demonstrate that the noun prefixes do indeed correspond to different noun classes even if the prefix is sometimes identical with the prefix of another class. In every such case the concord tone or concord consonant differs, establishing them as different classes.

#### 4.8.2 The form and semantics of the genders

The noun classes in (113) pair up in various ways to form double-class genders (cf. de Wolf 1971 for this terminology), while at other times they remain unpaired, in which case they form single-class genders. In the double-class genders, one class marks the member nouns for singular and the other class marks them for plural. In the single-class genders, the member nouns are either mass or collective nouns. The following genders are found:

(115) a. Double-class genders<sup>7</sup>:

1/2	9/6
3/6	9/14
3/14	14/6
5/6	14/9
5/8	19/3
5/9	19/6

b. Single-class genders:

3	9
5	14
6	19
8	



Thus, noun classes 1, 5 and 19 mark only singular nouns; noun classes 2, 6 and 8 mark only plural nouns (except in the case of the unusual double-gender 6/6---see footnote 7); and noun classes 3, 9 and 14 can mark either singular or plural nouns. This dual role for classes 3, 9 and 14 is due to the merger of the Proto-Bantu singular class \*3 with plural class \*4, and singular class \*9 with plural class \*10. The result is that synchronically class 3 serves for the proto-classes \*3 and \*4, class 9 for the proto-classes \*9 and \*10, and class 14 for the proto-classes \*14 and \*10.

For some of the genders there is an exclusive or dominant characteristic meaning associated with the gender, but for other genders there are a variety of associated meanings. The following is a fairly exhaustive breakdown of the meanings associated with the various genders.

(116) Double-class genders

a. Gender 1/2: only humans

N-nè	'person'	à-nè	'people'
N-tèm	'friend'	à-tèm	'friends'
N-sé	'father'	á-sé	'fathers'
N-káé	'wife'	à-káé	'wives'

b. Gender 3/6:

1. long, thin objects

N-díg	'rope'	à-ríg	'ropes'
N-čšg	'pestle'	à-čšg	'pestles'

2. natural objects

N-gún	'fire'	à-gún	'fires'
N-fúg	'hole'	à-fúg	'holes'

c. Gender 3/14: body parts, both facial and unpaired

Ñ-ñò	'mouth'	ò-ñò	'mouths'
Ñ-mí	'nose'	ò-mí	'noses'

d. Gender 5/6:

1. body parts, generally paired (cf. 14/6 and 9/6)

è-kád	'foot'	à-kád	'feet'
è-yín	'tooth'	à-mǎn	'teeth'
è-yǎd	'eye'	à-mǎd	'eyes'
è-bé	'breast'	à-bé	'breasts'

2. household objects

è-bí	'pot'	à-bí	'pots'
è-jǒ	'hearth broom'	à-jǒ	'hearth brooms'
é-búgí	'long mortar'	á-búgí	'long mortars'

3. plant life and related objects

é-tí	'tree'	á-tí	'trees'
é-bòmé	'dark forest'	á-bòmé	'dark forests'
è-jòṅè	'thorn'	à-jòṅè	'thorns'
é-kpágé	'fruit skin, bark'	á-kpágé	'fruit skins, bark'

4. skin diseases or wounds

é-fí	'boil'	á-fí	'boils'
è-rǒg	'sore'	à-rǒg	'sores'
è-gém	'slash wound'	à-gém	'slash wounds'

5. deep places

è-jìb	'pond'	à-jìb	'ponds'
è-kím	'deep water'	à-kím	'deep pools'
é-bídí	'pit'	á-bídí	'pits'
é-báné	'palm nut washing pit'	á-báné	'palm nut washing pits'

6. insects

è-dà	'larva'	à-dà	'larvae'
é-siní	'cricket'	á-siní	'crickets'

7. fish

é-kún	'tilapia fish'	á-kún	'tilapia fish'
-------	-------------------	-------	-------------------

é-kúí	'fresh water shrimp'	á-kúí	'fresh water shrimps'
é-kúmí	'large fresh water prawn'	á-kúmí	'large fresh water prawns'

8. birds

è-bêg	'fish eagle'	à-bêg	'fish eagles'
é-jág	'white-thighed hornbill'	á-jág	'white-thighed hornbills'
è-gùd	'grey parrot'	à-gùd	'grey parrots'
è-kû	'owl'	à-kû	'owls'

9. structural house items

é-búní	'mud bed'	á-búní	'mud beds'
è-kûg	'hearth'	à-kûg	'hearths'
è-gò	'corner post'	à-gò	'corner posts'

10. miscellaneous items

è-gúí	'hill, mountain'	à-gúí	'hills, mountains'
é-kúí	'forest'	á-kúí	'forests'
è-jàré	'print, spoor'	à-jàré	'prints, spoors'

e. Gender 5/8:

1. nouns derived from verbs

é-dí	'food'	bí-dí	'foods'
è-jû	'theft'	bì-jû	'thefts'
è-kàm	'crowd, group'	bì-kàm	'crowds, groups'
è-jèn	'journey'	bì-jèn	'journeys'

2. plant life

è-gòmé	'plantain'	bì-gòmé	'plantains'
è-gàg	'cactus'	bì-gàg	'cacti'
è-yàg	'rubber tree'	bì-yàg	'rubber trees'
è-yù	'yam'	bì-yù	'yams'

3. body parts, not paired (cf. 5/6 and 14/6)

è-rébè	'tongue'	bì-rébè	'tongues'
è-bèn <sup>8</sup>	'spleen'	bì-bèn	'spleens'
è-bún	'waist'	bì-bún	'waists'
è-fèn	'stomach'	bì-fèn	'stomachs'

#### 4. animals

è-bág	'monitor'	bì-bág	'monitors'
è-bì	'long-nosed mongoose'	bì-bì	'long-nosed mongeese'
è-fè	'Bosman's potto'	bì-fè	'Bosman's pottos'
è-jǒ	'African civet'	bì-jǒ	'African civets'

#### 5. birds

è-kúm	'black kite'	bì-kúm	'black kites'
è-túb	'large forest eagle'	bì-túb	'large forest eagles'

#### 6. insects

é-fém	'cockroach'	bí-fém	'cockroaches'
è-kúbì	'tick'	bì-kúbì	'ticks'

#### 7. man-made items

è-bám	'fence'	bì-bám	'fences'
è-kú	'latrine'	bì-kú	'latrines'
è-nùn	'bed'	bì-nùn	'beds'

#### 8. instruments

è-sòmé	'comb'	bì-sòmé	'combs'
è-kpún	'water gourd'	bì-kpún	'water gourds'

#### 9. miscellaneous

è-gù	'evening'	bì-gù	'evenings'
è-jùm	'thing'	ì-yim	'things'

f. Gender 5/9: The members of this gender could be classified in various ways, but the following seems like a reasonable classification. Most importantly, this gender includes items which are central to the farm life of the Ejagham and also certain items which are central to their expressive culture.

#### 1. work related, especially farm related

è-túm	'work'	Ñ-túm	'works, tasks'
è-bìn	'farm'	Ñ-bìn	'farms'
è-yǒm	'hoe'	Ñ-yǒm	'hoes'

é-kpân 'headbasket'      Ñ-kpân 'headbaskets'

2. nouns derived from verb roots

è-kpàn 'hoeing'      Ñ-kpàn 'hoeings'  
è-súm 'clearing brush'      Ñ-súm 'clearings of brush'  
è-kôn 'song'      Ñ-kôn 'songs'  
è-bân 'dance'      Ñ-bân 'dances'

3. nouns implying a grouping of items

è-jîn 'heap'      Ñ-jîn 'heaps'  
è-küb 'parcel'      Ñ-küb 'parcels'  
è-gàn 'bundle'      Ñ-gàn 'bundles'

4. plant life

è-bäd "mamicoco"      Ñ-bäd "mamicoco"  
è-sén 'tree trunk'      Ñ-sén 'tree trunks'  
è-bí 'palm fruit cluster'      Ñ-bí 'palm fruit clusters'

5. miscellaneous

è-yüm 'voice'      Ñ-yüm 'voices'  
è-gän 'proverb, story'      Ñ-gän 'proverbs, stories'  
è-tég 'village'      Ñ-tég 'villages'  
è-yâ 'year'      Ñ-yâ 'years'

g. Gender 9/6:

1. plant life

Ñ-kàb 'fruit'      à-kàb 'fruits'  
Ñ-mègè 'seed'      à-mègè 'seeds'  
Ñ-jé 'grass'      à-jé 'grasses'  
Ñ-dâb 'branch'      à-râb 'branches'

2. long instruments

Ñ-témé 'punt pole'      à-témé 'punt poles'  
Ñ-bâg 'sheath'      à-bâg 'sheaths'  
Ñ-kpûn 'club, baton'      à-kpûn 'clubs, batons'

3. body parts, paired (cf. 5/6 and 14/6)

Ñ-fég 'kidney'      á-fég 'kidneys'  
Ñ-dáb 'bottom'      à-ráb 'bottoms'

4. traps

N-tám	'trap'	à-tám	'traps'
N-dén	'fish trap-net'	à-rén	'fish trap-nets'

5. items with joinings

N-gbǎn	'forked stick'	à-gbǎn	'forked sticks'
N-kùg	'corner, joint, buttress root'	à-kùg	'corners, joints, buttress roots'

6. nouns derived from verbs

N-čǒd	'talk, matter'	à-čǒd	'talks, matters'
N-jòm	'protective magic'	à-jòm	'protective magic'

7. miscellaneous items

N-táé	'stone'	à-táé	'stones'
N-kèb	'enema-giving calabash'	á-kèb	'enema-giving calabashes'
N-kpè	'side, edge'	à-kpè	'sides, edges'

h. Gender 9/14:

1. the majority of animals, including those of special cultural significance indicated with "

N-nàm	'animal, meat'	ò-nàm	'animals, meats'
N-jòg	'elephant'	ò-jòg	'elephants'
N-gbè	'leopard'	ò-gbè	'leopards'
N-fún	'African buffalo'	ò-fún	'African buffaloes'

2. most insects and small animal life

N-bém	'mosquito'	ó-bém	'mosquitoes'
N-fúd	'crysops fly'	ò-fúd	'crysops flies'
N-bí	'louse'	ò-bí	'lice'
N-kpág	'grasshopper'	ó-kpág	'grasshoppers'

3. body parts, not paired (cf. 5/6 and 14/6)

N-báné	'heart'	ó-báné	'hearts'
N-gǎn	'chest'	ò-gǎn	'chests'
N-tún	'throat'	ò-tún	'throats'
N-jèm	'back'	ò-jèm	'backs'

4. nouns derived from verb roots

N-bìn	'name'	ò-bìn	'names'
N-kim	'circumcision'	ò-kim	'circumcisions'

5. plant life

Ñ-sín	'wild sweet mango tree'	ò-sín	'wild sweet mango trees'
Ñ-ǎíd	'garden egg'	ó-ǎíd	'garden eggs'
Ñ-tàbé	'okra'	ò-tàbé	'okra'
Ñ-yóg	'type of wild spice'	ó-yóg	'type of wild spice'

6. miscellaneous items

Ñ-bá	'road'	ò-bá	'roads'
Ñ-ká	'thatch'	ó-ká	'thatches'
Ñ-děm	'dream'	ò-rěm	'dreams'
Ñ-jû	'house'	ò-jû	'houses'

i. Gender 14/6:

1. body parts, most being paired (cf. 5/6, 9/6)

ò-kíg	'cheek'	à-kíg	'cheeks'
ò-bô	'hand, arm'	à-bô	'hands, arms'
ò-gbâb	'armpit'	à-gbâb	'armpits'
ò-tûn	'ear'	à-tûn	'ears'

2. plant life

ò-bí	'oil palm'	à-bí	'oil palms'
ò-kém	'kapok "cotton" tree'	à-kém	'kapok "cotton" trees'
ò-kâg	'type of tree'	à-kâg	'type of tree'
ò-kém	'prone oil palm which gives palm wine'	à-kém	'prone oil palms which give palm wine'

3. utensils and instruments

ò-kpèdè	'fufu calabash'	à-kpèdè	'fufu calabashes'
ò-kpí	'canoe'	à-kpí	'canoes'
ò-tùn	'funnel'	à-tùn	'funnels'
ò-tà	'jug'	à-tà	'jugs'

4. miscellaneous

ò-gèm	'market'	à-gèm	'markets'
ò-rân	'fufu'	à-rân	'types of fufu'
ò-kùm	'society, masquerade'	à-kùm	'societies, masquerades'

j. Gender 14/9: only three known members

ò-fú	'day'	Ñ-fín	'days'
ò-ñbòdè	'sheanut'	Ñ-ñbòdè	'sheanuts'
ò-kún	'firewood'	Ñ-kún	'firewood'

k. Gender 19/3: Many nouns in the genders 19/3 and 19/6 have the feature of being long and often narrow items. Such nouns are indicated with ". Other nouns have roots in other genders, but in gender 19/3 they clearly have a diminutive sense. These nouns are indicated with a 'D'.

1. body parts

"í-bó	'elephant trunk'	Ñ-bó	'elephant trunks'
D"í-kéb	'small arm bone of monkey'	Ñ-kéb	'small arm bones of monekey(s)'
"í-ki	'tail'	Ñ-ki	'tails'
"í-nèdé	'finger'	Ñ-dèdé	'fingers'

2. plant life

D"í-tí	'stick'	Ñ-tí	'sticks'
í-ñàgè	'ebony tree'	Ñ-ñàgè	'ebony trees'
"í-búm	'palm shoot'	Ñ-búm	'palm shoots'
"í-fúdí	'cane rope'	Ñ-fúdí	'cane ropes'

3. man-made items

"í-kòg	'bridge, rope bed'	Ñ-kòg	'bridges, rope beds'
"í-fègè	'ladder'	Ñ-fègè	'ladders'
í-fém	'stool'	Ñ-fém	'stools'
ì-kémé	'large basket'	Ñ-kémé	'large baskets'

4. birds

ì-nón	'bird'	Ñ-nón	'birds'
ì-kpáé	'bush-fowl'	Ñ-kpáé	'bush-fowls'
ì-buí	'red-billed wood dove'	Ñ-buí	'red-billed wood doves'



5. animals

i-ká	'black-bellied pangolin'	Ñ-ká	'black-bellied pangolins'
i-sê	'Maxwell's duiker'	Ñ-sê	'Maxwell's duikers'
i-kâ	'water chevrotain'	Ñ-kâ	'water chevrotains'
i-féǵé <sup>9</sup>	'pipistrelle bat'	Ñ-féǵé	'pipistrelle bats'

6. miscellaneous

“i-bùmí	'strut of thatch'	Ñ-bùmí	'strut of thatches'
“i-tèmè	'machete'	Ñ-tèmè	'machetes'
i-tàm	'hat'	Ñ-tàm	'hats'

1. Gender 19/6:

1. body parts<sup>10</sup>

“i-bǎn	'horn'	à-bǎn	'horns'
“i-jǎd	'vein'	à-jǎd	'veins'

2. plant life

“i-mán	'palm frond'	à-mán	'palm fronds'
“i-rǔg	'root'	à-rǔg	'roots'

(117) Single-class genders

a. Gender 3: only two nouns

Ñ-gũn	'dry land, earth'
Ñ-tí	'money'

b. Gender 5:

1. abstract nouns derived from verbs

è-bàn	'hatred'
è-ǒìdì	'stupidity'
è-kùbì	'conversation'
è-rìdì	'deceitfulness'

2. meteorological and natural phenomena

è-bú	'time'
è-féǵè	'air'
è-kǒg	'harmattan'
è-nàè	'rainy season'

3. miscellaneous

è-bǎm	'dust'
è-gbè	'menstruation'
è-fín	'ancestor sacrifice'
è-rüg	'venom'

- c. Gender 6: Most of the exemplary nouns given for this single-class gender could be described as taking the shape of the container in which they enter or the item through which they pass. The only exceptions would be the nouns à-mòè 'cheating', á-fídí 'argument, debate' and à-fâd 'twins'.

1. liquids

à-ǎm ~ à-mǎm	'palm wine'
à-fégè	'urine'
à-áb ~ à-yé b	'water'
à-gún	'blood'

2. body related items

à-fôm	'fat'
à-bǎn	'feces, excreta'
à-nǎd	'body hair'
à-rǎn	'brains'

3. nouns derived from verbs

à-mòè	'cheating'
á-fídí	'argument, debate'

4. miscellaneous items

à-fâd	'twins'
à-tǎn	'ash'
à-kân	'salt'
á-túg	'smoke'

- d. Gender 8: one member

bì-jì	'body'
-------	--------

e. Gender 9:

1. abstract nouns

Ñ-fù	'lie'
Ñ-dìbí	'wickedness'
Ñ-jáé	'hunger'
Ñ-sôn	'sadness, pity'

2. plant life

Ñ-kùì	'maize'
Ñ-fáé	'type of vegetable'
Ñ-kõn	'melon seeds'
Ñ-fõ	'a tree nut high in oil content'

3. Meteorological and natural phenomena

Ñ-fêb	'wind'
Ñ-sân	'thunder'
Ñ-gûm	'places, weather'
Ñ-júí	'sun'

4. nouns derived from verbs, mostly activities

Ñ-tìd	'remembrance, thought'
Ñ-fìbì	'whistling'
Ñ-gòm	'fine, debt'
Ñ-yôg	'swimming'

5. body related items

Ñ-čêb	'rheumatism'
Ñ-kù	'vomit'
Ñ-ñû	'hair'
Ñ-yúbí	'sweat'

f. Gender 14:

1. nouns derived from verbs, mostly abstracts

ò-bîm	'hunting party'
ò-kôd	'love'
ò-yèm	'grave'
ò-kpónhè	'quarrel'

2. nouns derived from 'human' nouns in 1/2,  
generally indicating the quality  
characterizing that person

ò-jé 'witchcraft'

ò-jàn 'laziness'

ò-tèm 'friendship'

ò-kpàg 'poverty'

3. plant life

ò-bǎb 'mushroom'

ò-čú 'bitter leaf vegetable'

ò-fá 'tree sap'

ò-ròbé 'beans'

4. miscellaneous

ò-yùm 'dry season'

ò-sòn 'saliva'

ò-sí 'measles'

ò-kà 'skill, cunning'

g. Gender 19:

1. abstracts

ì-jón 'friendship between females'

ì-kòm 'power, strength'

2. plant life

ì-fǎd 'groundnuts'

ì-sú 'pepper'

Note that for some classifications above only two or three examples are given. In these cases, these two or three examples are all the members of that classification. In cases where four exemplary members of a classification are given, there are generally more members of that classification. For a more complete list, see Watters (1980).

Two points need to be made about the above classifications and genders. First, it is clear that in many cases a given

gender does not correlate with a general semantic category, nor with a semantic category which is not found in another gender or genders. Many genders range over a variety of semantic categories, and various semantic categories are distributed among various genders. However, the following appear as significant correlations between genders and semantic categories: 1/2 'human', 9/14 'most animals', 5/6 and 14/6 'paired body parts', 19/3 and 19/6 'long, narrow items', 6 'liquids/masses', 14 'human qualities'. In addition, speakers are apparently sensitive to some degree to a correlation between a gender and a semantic category such as 'animacy' even if 'animacy' as a category correlates with various genders or classes. Thus, WE permits the category 'animacy' to be correlated with class 19 (in gender 19/3), but EE has changed this and does not permit class 19 to correlate with the category 'animacy'. As a result, all animate nouns in class 19 in WE have been transferred to class 1 in EE, making a new gender 1/3. In EE noun class 1 correlates with the category 'human' and also 'animate', with every animate item which does not have the prefix of class 5 ε- or class 9 N- in its singular form being assigned to class 1 in terms of concord.

Secondly, a number of nouns have two possible forms in their plural meaning. This type of variation indicates an area of instability within the Ejagham noun class system. This type of variation is most frequent with nouns in genders

5/6 and 5/8. For a given sub-dialect, most nouns clearly belong to a specific gender, but when a list of 170 nouns was compared across dialects and sub-dialects, it was found that the size of the membership for each of these genders varied significantly between dialects and even within dialects. Following is a list of eight villages with the number of nouns belonging to these genders from the 170 noun word list.

(118) Variation in use of genders 5/6 and 5/8

	<u>gender 5/6</u>	<u>gender 5/8</u>
Assibong (southern EE)	12	33
<u>Afap (northern EE)</u>	<u>14</u>	<u>25</u>
Ndebaya (northern WE)	20	13
Ajasso (northern WE)	25	9
Bendeghe (northern WE)	17	11
Abijang (western WE)	29	2
<u>Akamkpa (southwestern WE)</u>	<u>24</u>	<u>4</u>
Big Qua (SE)	35	-

In Big Qua, gender 5/8 does not exist because noun class 8 has merged with noun class 6. The one noun which belongs to the single-class gender 8 in the Eyumojok-Ndebaya sub-dialect of WE, namely bi-jì 'body', belongs to the single-class gender 5 in SE even though the noun retains its bi- prefix rather than take on the ɛ- prefix of class 5. It is identifiable as belonging to gender 5 because it takes class 5 concord.

The generalization found in (118) is that in EE gender 5/6 is a medium size gender in terms of membership while gender 5/8 is a large size gender. As one moves west and

and south from EE, gender 5/6 becomes larger and gender 5/8 becomes smaller, until gender 5/6 is a large gender and gender 5/8 no longer exists in SE. In other words, class 8 serves as a significant plural class for nouns which in their singular form are in class 5 in EE. But as one moves west and south class 8 becomes increasingly less significant as a plural for singular nouns in class 5, until class 8 is no longer used at all in SE.

#### 4.8.3 Loan-words and the gender system

Loan-words have entered the language both from neighboring African languages and from English. The loan-words from African languages generally are phonologically similar to original words in Ejagham. Thus, they generally have a sequence of segments which may be analyzed into a prefix and a root, even if the language from which the word is borrowed no longer has a functioning noun class system like that in Ejagham. For example, Efik has provided numerous loan-words for Ejagham. Words such as ànwá 'cat' and iwá 'cassava', which have relics of a previous but no longer functioning noun class system in the form of their initial vowels, are easily adapted into Ejagham as à-nwá 'cat (noun class 6)' and ì-wá 'cassava (noun class 19)'. Similarly the Igbo word ákpú 'cassava' has been borrowed by the Ejagham as á-kpú 'cassava fufu (noun class 6)'.

The loan-word à-nwá 'cat' and the possible loan-words à-sùmčé 'allied hornbill' and à-kùg 'domestic pig' are the only three nouns referring to animate, non-human items that

are not in noun class 5, 9 or 19 in their singular form. In addition, they are the only nouns which do not change class when in their plural form. They actually form an unusual gender 6/6<sup>11</sup>.

Loan-words from English present a different problem since phonologically they are often not easily analyzable into a prefix and a root. Some words have been assigned a prefix like the following:

- (119) a. Ì-mǎg 'mug' à-mǎg 'mugs' (gender 9/6)  
 b. Ì-kǎn 'can' (gender 9)  
 c. Ì-sǎb 'soap' (gender 9)

However, most present day borrowings from English are placed in the gender 1/2 if they are human, or in an unusual gender 9/2 if they are non-human<sup>12</sup>. With both types of nouns, human and non-human, the singular prefix is zero and the plural prefix is ba-. This ba- prefix is unattested for class 2 in WE, which only has a-, but two lexical items in EE have the prefix ba- in free variation with a- in class 2: á-sé ~ bá-sé 'fathers' and à-ñě ~ bà-ñě 'mothers'. Examples of English loan-words are given in (120).

- (120) a. -tíǎ 'teacher' bà-tíǎ 'teachers' (1/2)  
 b. -lídà 'leader' bà-lídà 'leaders' (1/2)  
 c. -mótò 'vehicle' bà-mótò 'vehicles' (9/2)  
 d. -pókìd 'bucket' bà-pókìd 'buckets' (9/2)

The prefixless roots in (120) are identified with either noun class 1 or 9 according to the concord which they take.

#### 4.8.4 Classifiers

There is a set of lexical items which are used as



classifiers when counting certain nouns. These classifiers function as the head of the noun phrase and the numbers concord with the classifier in enumeration. Some of the classifiers are clearly nominals with a specific meaning, while others are shaped like a nominal but they have no specific, assignable meaning in isolation. The following is a list of the classifiers with their normal nominal meaning (if known), and the various items which they are used to enumerate.

(121) N-məgè/à-məgè 'any small, generally round object'

- |    |                       |                             |
|----|-----------------------|-----------------------------|
| a. | N-məgè`í-čókùd yé-d   | 'one orange seed'           |
|    | à-məgè`í-čókùd á-báé' | 'two orange seeds'          |
| b. | N-məgè`N-kùì yé-d     | 'one kernel of corn'        |
|    | à-məgè`N-kùì á-báé'   | 'two kernels of corn'       |
| c. | N-məgè`N-bǎŋ yé-d     | 'one palm oil kernel/nut'   |
|    | à-məgè`N-bǎŋ á-báé'   | 'two palm oil kernels/nuts' |
| d. | N-məgè`é-sébè yé-d    | 'one grain of sand'         |
|    | à-məgè`é-sébè á-báé'  | 'two grains of sand'        |
| e. | N-məgè`N-sǐ yé-d      | 'one particle of earth'     |
|    | à-məgè`N-sǐ á-báé'    | 'two particles of earth'    |
| f. | N-məgè`ò-ròbè yé-d    | 'one bean'                  |
|    | à-məgè`ó-ròbè á-báé'  | 'two beans'                 |

(122) N-sùm/à-sùm '----; classifier of any fruit or root which is long'

- |    |                       |                 |
|----|-----------------------|-----------------|
| a. | N-sùm ì N-tèbè yé-d   | 'one okra pod'  |
|    | à-sùm ` ó-tèbè á-báé' | 'two okra pods' |
| b. | N-sùm ` ò-ròbè yé-d   | 'one bean pod'  |
|    | à-sùm ` ó-ròbè á-báé' | 'two bean pods' |

- c. N-sũm `è-gòmé yé-d 'one finger of plantain'  
 à-sũm `é-gòmé á-báé 'two fingers of plantain'
- d. N-sũm ì N-sùdí yé-d 'one finger of banana/ripe  
 plantain'  
 à-sũm `á-sùdí á-báé 'two fingers of banana/ripe  
 plantain'
- e. N-sũm ì N-kùì yé-d 'one ear of corn'  
 à-sũm í N-kùì á-báé 'two ears of corn'
- f. N-sũm `ì-wá yé-d 'one caesava tuber'  
 à-sũm `í-wá á-báé 'two cassava tubers'
- g. \*N-sũm `è-yũ yé-d 'one yam tuber'

Note that in (122g) 'yam' cannot be classified with N-sũm.  
 Instead, the large, long white yam is counted simply with  
 the noun in its bare form: è-yù jé-d 'one yam', bì-yù í-báé  
 'two yams'.

(123) è-rém/N-dém '----; classifier of any fruit or root  
 which is round or in a cluster'

- a. è-rém `í-čókùd jé-d 'one orange'  
 N-dém `í-čókùd é-báé 'two oranges'
- b. è-rém í N-bǎŋ jé-d 'one coconut'  
 N-dém ì N-bǎŋ é-báé 'two coconuts'
- c. è-rém `é-bì jé-d 'one palm nut cluster'  
 N-dém ì N-bì é-báé 'two palm nut clusters'
- d. è-rém í kókò jé-d 'one cocoa pod'  
 N-dém ì kókò é-báé 'two cocoa pods'
- e. è-rém `é-gòmé jé-d 'one plantain bunch'  
 N-dém ì bì-gòmé é-báé 'two plantain bunches'
- f. è-rém `é-běd-áńón jé-d 'one cocoyam'  
 N-dém ì N-běd-áńón é-báé 'two cocoyams'

(124) Ñ-déb/à-réb 'bottom'; 'classifier for trees, plants and vegetables'

- a. Ñ-déb ` ò-tèbé yé-d 'one okra plant'  
 à-réb ` ó-tèbé á-báé 'two okra plants'
- b. Ñ-déb ì Ñ-fúní yé-d 'one plant of a wild vine'  
 à-réb í Ñ-fúní á-báé 'two plants of a wild vine'
- c. Ñ-déb ì Ñ-fáé yé-d 'one Indian spinach plant'  
 à-réb í Ñ-fáé á-báé 'two Indian spinach plants'
- d. Ñ-déb ` ò-ròbé yé-d 'one bean plant'  
 à-réb ` ó-ròbé á-báé 'two bean plants'
- e. Ñ-déb ` è-gòmé yé-d 'one plantain tree'  
 à-réb í bí-gòmé á-báé 'two plantain trees'
- f. Ñ-déb ì Ñ-bǎṅ yé-d 'one coconut tree'  
 à-réb ` ó-bǎṅ á-báé 'two coconut trees'
- g. Ñ-déb ì kókò yé-d 'one cocoa plant'  
 à-réb í kókò á-báé 'two cocoa plants'
- h. Ñ-déb ì kòfí yé-d 'one coffee plant'  
 à-réb í kòfí á-báé 'two coffee plants'
- i. Ñ-déb ` í-čókùd yé-d 'one orange tree'  
 à-réb ` í-čókùd á-báé 'two orange trees'
- j. Ñ-déb ` ò-kém yé-d 'one kapok cotton tree'  
 à-réb ` á-kém á-báé 'two kapok cotton trees'

(125) è-sán/Ñ-sén 'tree trunk'; 'classifier for trees'

- a. è-sán ` í-čókùd jé-d 'one orange tree'  
 Ñ-sén ` í-čókùd é-báé 'two orange trees'
- b. è-sán ` ó-kém jé-d 'one kapok cotton tree'  
 Ñ-sén ` à-kém é-báé 'two kapok cotton trees'

There is some overlap in the use of Ñ-déb/à-réb 'bottom' and è-sán/Ñ-sén 'tree trunk' in that the first is used to enumerate trees in addition to plants and vegetables, while the second

is used to enumerate trees exclusively.

Most nouns do not use a classifier when being enumerated, but for the various types of nouns listed above, e.g. seeds, grains, kernels, nuts, long fruits and roots, round fruits and roots, clusters of fruits, plants, trees and vegetables a classifier is generally required.

#### 4.9 Referential and nonreferential indefiniteness

Generally no distinction is made between referential and nonreferential indefiniteness. The interpretation of a given noun as referential or nonreferential depends on the context in which it occurs. However, it is possible to specify a noun as referential indefinite if necessary, by modifying the noun with the numeral 'one'. For example:

- (126) Ì-nè      yó-d Ì-nb̄      à-bá'é      é-gé  
1-person 1-one REL-1 3ps:PFV-come-C.Foc 5-today  
'a specific person who came today
- à-sédè      ðm ánò  
3ps:PFV-tell 1ps thus  
told me so'

#### 4.10 Definiteness, referentiality, genericness and importance

Nouns are not formally marked for being definite, indefinite, generic or for their relative importance as actors. (Also see 4.9 on indefiniteness.)

## Notes to chapter 4

<sup>1</sup>In the case of predicate nominatives not all of the details have been sorted out. There appears to be variation between some speakers and variation even in the speech of certain individuals from one time to the next; namely, there is variation between using the restricted set of subject prefixes and the set used in normal subject-verb agreement. The significance of this variation has not yet been determined.

<sup>2</sup>The EE and SE dialects have yà 'with' rather than nà.

<sup>3</sup>These terms are used not because of an analogy to English infinitives and gerunds but because of the relation of the forms to Proto-Bantu (cf. Meeussen 1967) and a desire to distinguish the two in discussion. In relation to Meeussen's (1967:111) reconstruction of Proto-Bantu both of these forms might be termed 'infinitives'.

<sup>4</sup>EE uses noun class 5 prefix ə- to form gerunds rather than noun class 14 prefix ɔ-. Thus, in EE the infinitive and gerund are only distinguished from each other in that the infinitive has a suffix -ə while the gerund does not.

<sup>5</sup>Comrie and Smith's (1977:30) semantic functions 'essive' and 'translative' are expressed identically to that of 'function'.

<sup>6</sup>The following reductions in the basic nine noun classes have also occurred: the Bendeghe sub-dialect of WE has merged class 2 with class 6, and class 19 with class 8; the Obang sub-dialect of EE has also merged class 19 with class 8; and SE has merged class 8 with class 6. In addition, the Bendeghe sub-dialect has partially merged class 3 with class 6--- everything but the prefixes are identical.

<sup>7</sup>In addition, there is an odd double-class gender 6/6 with three nouns as members: à-ŋwá 'cat', à-súmčé 'allied hornbill' and à-kúg 'domestic pig'.

Also note that EE, in the center of its northern sub-dialect, has lost the optional feature of animacy for class 19. Therefore, animate items in gender 19/3 in WE are in a new gender 1/3 in EE.

<sup>8</sup>The first root consonant b does not become [β] between vowels in this root in this sub-dialect.

<sup>9</sup>This noun is here categorized as an 'animal', but the Ejagham would categorize it as a 'bird'.

<sup>10</sup>Some speakers put these two nouns in gender 19/3.

<sup>11</sup>However, in EE they are in gender 1/2, with a zero prefix in their singular and a bò- prefix in their plural: -ànwá 'cat' / bò-ànwá 'cats', -àsúmčé 'allied hornbill' / bò-àsúmčé 'allied hornbills', and -ákóg 'domestic pig' / bò-ákóg 'domestic pigs'. The use of this bò- prefix suggests that this plural class for these nouns was historically Proto-Ekoid class 14. (see Watters 1980).

<sup>12</sup>In EE all loan-words from English are in the gender 1/2, with class 2 having the prefix bò- rather than the usual class 2 prefix à-.

CHAPTER 5

THE PRONOUN

## 5.0 The Pronoun

### 5.1 Personal pronouns

#### 5.1.1 Free pronouns

Free pronouns have the following syntactic functions: subject, object, indirect object and object of preposition. These pronouns are obligatory when they are 1) in focus, as in the cleft sentence in (1), or 2) in the predicate of equational sentences, as in (2).

(1) yê nâ à-nàm-é'                      Ñ-búi  
3ps FOC 3ps:PFV-buy-C.Foc 9-goat  
'(it was) he that bought the goat'

(2) à-rì ímè                      'it's me'  
3ps-be 1ps

In other contexts, the use of free pronouns is optional. In such cases, the forms of the 2ps and 3ps free pronouns are reduced as follows when they occur in the direct or indirect object position immediately following the verb:

(3)	<u>Full-form</u>	<u>Reduced-form</u>
2ps	wâ	â
3ps	yê	ê

These reduced-forms are exemplified in (4a) and (4b).

(4) a. à-kádè                      wâ                      --> [àk<sup>h</sup>árá]  
3ps:PFV-give 2ps                      'she gave (it) to you'

b. Ñ-bín                      yê                      --> [mbín<sup>h</sup>ê]  
1ps:PFV-call 3ps                      'I called him'

However, in cases where the free pronoun is obligatory the full-form of the pronoun is used.





### 5.1.7 Other possibilities

The pronoun system does not have distinct forms for indicating tribal, sectional or family relationships of the speaker, hearer or referents.

### 5.1.8 The free pronouns

The following table specifies the free forms found in the language.

(6) Table of Free Pronouns<sup>1</sup>

<u>Class</u>	<u>First person</u>		<u>Second person</u>		<u>Third person</u>
	<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>	
1	m̀m̀è	ɛ̀m	ẁè	ŵa	ŷè
2		ɛ̀d		ɛ̀n	ábo
3					́N-ḿs-ǹè
5					́N-j́s-ǹè
6					́N-má-ǹè
8					́N-b́s-ǹè
9					́N-ñ́s-ǹè
14					́N-b́s-ǹè
19					́N-f́s-ǹè

In table (6), the nine noun classes are listed in the lefthand column. The other three columns are those for first, second and third person. Only noun classes 1 and 2 distinguish all three persons. In other words, only in these two classes are the speaker, hearer and referent distinguished. All other classes are used to indicate other referents, i.e. third persons, only.

For first and second person, a further distinction has to be listed, namely that between A and B forms. The A forms may be considered as 'nominative' forms and the B as 'accusative' forms. The A forms are used in subject and object of preposition functions. The B forms are used in direct and indirect object functions. The second person B form and the third person form, both of class 1, have reduced forms as discussed in 5.1.1. In class 2 there is no distinction between A and B forms.

The third person (referent) forms for all noun classes but 1 and 2 are formed in a regular manner. The pronoun consists of a root and a complex affix. The root is a concord morpheme from the appropriate class. The complex affix consists of a prefixed N- and a suffixed -nè.

The complex affix must be glossed as 3p ('third person') since it may refer to either singular or plural referents, depending on the class and the actual noun referred to. Thus, classes 5 and 19 would only refer to 3ps, and classes 6 and 8 would generally refer to 3pp. On the other hand, classes 3, 9 and 14 may refer to either a singular or plural noun, depending on which gender the noun belongs to.

The third person forms for classes 1 and 2 are the most common (and for some speakers the only) forms. Some speakers permit the formation of the pronominal correlates to the forms of the other classes, namely N-ñó-nè '3p (class 1)' and N-bá-nè '3p (class 2)'. When these forms are used, they

primarily refer to a quality of the referent rather than to a specific person or people. Compare the following:

- (7) a. ?à-yɛ̃n            ń-bá-nè  
          3ps:PFV-see 3p-2-3p  
          'she saw that type of people'
- b. à-yɛ̃n            ábǔ  
          3ps:PFV-see 3pp  
          'she saw them'

The question mark '?' in (7a) indicates that some speakers would not accept this sentence.

The use of the free pronouns of classes other than 1 and 2 in the subject function is optional, but in terms of discourse it is essentially non-existent. Instead, in such cases the subject is indicated with the appropriate subject prefix on the verb.

#### 5.1.9 Tense and honorifics

The pronouns do not agree in tense with the verb, nor are there any distinctions in terms of status, e.g. familiar, honorific, and so on.

#### 5.1.10 Nonspecific, indefinite pronouns

There are no special nonspecific, indefinite pronouns. However, the personal pronoun wè/wá '2ps' may be used in a nonspecific, indefinite manner. For example, in procedural discourse in which a certain process of doing things is described, the second person singular pronoun is used.

- (8) á-bĩn            wá sɛ̃    ɔ́-kádé            ń-ńàm    nà    à-ám,  
          3pp:PFV-call 2ps COMP 2ps:HORT-give 9-meat and 6-wine,  
          'they call you (saying) that you should give meat and wine,

wè nâ ò-gbò-é'  
 2ps FOC 2ps:PFV-fall-C.Foc  
 (it is) you who have been found guilty'

The 3pp may also be used with a nonspecific, indefinite sense. This most commonly occurs in impersonal constructions (see 6.1.1).

The noun Ñ-nè 'person' may also function as a nonspecific, indefinite form.

- (9) a. Ñ-nè      à-jǎ-g                      é-bĩn kpè bàg(a) ó-fũ  
 1-person 3ps:HAB-go-IMPV 5-farm even which? 14-day  
 'a person goes to the farm every day'  
 'one goes to the farm every day'
- b. Ñ-nè      Ñ-ñò à-fòn-é'                      Ñ-tí  
 1-person REL-1 3ps:PFV-have-C.Foc 3-money  
 'a person who has money'  
 'one who has money'
- á-kà-fǒn      ó-sèṅè  
 3ps-NEG-have 14-trouble  
 doesn't have trouble'  
 doesn't have trouble'

#### 5.1.11 Specific, indefinite pronouns

There are no special specific, indefinite pronouns. However, by using the noun Ñ-čànè 'specific, indefinite item' specific, indefinite forms like those in (10a) and (10b) can be constructed. But note that there is no restriction on what noun can co-occur with the noun Ñ-čànè, as shown in (10c) and (10d).

- (10) a. Ñ-nè      ` Ñ-čànè                      'someone'  
 1-person AM 9-spec.indef.item

- b. è-jùm í Ñ-čàné 'something'  
 5-thing AM 9-spec.indef.item
- c. è-tùm í Ñ-čàné 'somework'  
 5-work AM 9-spec.indef.item
- d. Ñ-sí ` Ñ-čàné 'somefish'  
 9-fish AM 9-spec.indef.item

Compare the use of these forms with nonspecific, indefinite forms:

- (11) a. Ñ-yên Ñ-nè  
 lps:PFV-see 1-person  
 'I saw someone (nonspecific, indefinite)'
- b. Ñ-yên Ñ-nè ` Ñ-čàné  
 lps:PFV-see 1-person AM 9-spec.indef.item  
 'I saw someone (specific, indefinite)'
- (12) a. Ñ-kà-yén kpè Ñ-nè  
 lps-NEG-see even 1-person  
 'I didn't see anyone (nonspecific, indefinite)'
- b. Ñ-kà-yén Ñ-nè ` Ñ-čàné  
 lps-NEG-see 1-person AM 9-spec.indef.item  
 'I didn't see someone (specific, indefinite)'
- (13) a. Ñ-nè à-yên ðm  
 1-person 3ps:PFV-see lps  
 'someone (nonspecific, indefinite) saw me'
- b. Ñ-nè ` Ñ-čàné à-yên ðm  
 1-person AM 9-spec.indef.item 3ps:PFV-see lps  
 'someone (specific, indefinite) saw me'
- (14) a. kpè Ñ-nè á-kà-yén ðm  
 even 1-person 3ps-NEG-see lps  
 'no one (nonspecific, indefinite) saw me'
- b. Ñ-nè ` Ñ-čàné á-kà-yén ðm  
 1-person AM 9-spec.indef.item 3ps-NEG-see lps  
 'someone (specific, indefinite) didn't see me'

In (11a), (12a), (13a) and (14a) a nonspecific, indefinite form N-nè 'person' (cf. 5.1.10) is used, while in (11b), (12b), (13b) and (14b) the specific, indefinite form N-nè ' N-čàné 'someone' is used. The sentences in (11) and (13) are positive, while those in (12) and (14) are negative. Note that in the negative sentences, the specific, indefinite form is the same as it is in positive sentences, but the nonspecific indefinite form changes from simple N-nè 'person' to kpè N-nè 'no one (lit: 'even person'))'.

#### 5.1.12 Emphatic or complex pronouns

There are no special emphatic pronouns, nor are there any complex pronouns which consist of a combination of different types of reference, e.g. subject and object reference.

#### 5.1.13 Pronoun-noun constructions

Pronoun-noun constructions are permitted when the two elements have the same reference. There is no restriction as to which pronouns may function in such a construction.

- (15) a. wè N-tèm òmé 'you my friend....'  
           2ps 1-friend 1:my  
       b. êd à-kpàŋ-á-Nbĩn 'we farmers....'  
           1pp 2-hoe-NOM-farms

#### 5.1.14 Case system and pronouns

There is a case distinction in first and second persons only, and that only with singulars and not plurals. See 5.1.8.

## 5.2 Reflexive pronouns

There are no special reflexive pronouns. Instead, the noun bì-jì 'body' plus a possessive pronoun which is correferential with an antecedent noun is used. This reflexive expression is subcategorized for first, second and third person in both singular and plural number.

- (16) a. bì-jì ì-ímé 'myself (lit: 'my body')'  
b. bì-jì ìb-ā 'yourself (lit: 'your body')'  
c. bì-jì ìb-ê 'himself/herself/itself (lit: 'his body/her body/its body')'  
d. bì-jì ìb-ódé 'ourselves (lit: 'our bodies')'  
e. bì-jì ìb-óné 'yourselves (lit: 'your bodies')'  
f. bì-jì ábǒ 'themselves (lit: 'their bodies')

- (17) a. à-súm            bì-jì ìb-ê  
3ps:PFV-hit 8-body 8-3ps  
'he hit himself'  
'he hit his (own) body'  
'he hit his (someone else's) body'  
b. è-kí-yím      é-tùm    á-jì    kǎ bì-jì ìb-ódé  
lpp-CONT-do 5-work that-5 at 8-body 8-our  
'we are doing that work by ourselves'

As (17a) indicates, there is no difference between 'he hit himself' and 'he hit his (own/someone else's) body'. Emphatic reflexives are expressed with a prepositional phrase consisting of the preposition kǎ 'in, on, at, to, from' and the reflexive forms, as in (17b).

## 5.3 Reciprocal pronouns

There are no reciprocal pronouns, but the reciprocal relation can be expressed by using the noun à-tèm 'friends':





are listed in the far lefthand column next to the noun class numbers. The basic forms of the roots are listed across the top of the table<sup>3</sup>.

(19)

Possessive Pronouns

	1ps	2ps	3ps	1pp	2pp
	<u>-Vmé</u>	<u>-a</u>	<u>-e</u>	<u>-ədé</u>	<u>-əné</u>
1	òw- <u>é</u>	òw- <u>ǎ</u>	òw- <u>ě</u>	ò-ò <u>dé</u>	ò-ò <u>né</u>
2	àb- <u>é</u>	àb- <u>ǎ</u>	àb- <u>ě</u>	àb- <u>ədé</u>	àb- <u>éné</u>
3	ím- <u>é</u>	ím- <u>ǎ</u>	ím- <u>ě</u>	ím- <u>ədé</u>	ím- <u>éné</u>
5	èj- <u>é</u>	èj- <u>ǎ</u>	èj- <u>ě</u>	èj- <u>ədé</u>	èj- <u>éné</u>
6	àm- <u>é</u>	àm- <u>ǎ</u>	àm- <u>ě</u>	àm- <u>ədé</u>	àm- <u>éné</u>
8	ìb- <u>é</u>	ìb- <u>ǎ</u>	ìb- <u>ě</u>	ìb- <u>ədé</u>	ìb- <u>éné</u>
9	èy- <u>é</u>	èy- <u>ǎ</u>	èy- <u>ě</u>	è-è <u>dé</u>	è-è <u>né</u>
14	òb- <u>é</u>	òb- <u>ǎ</u>	òb- <u>ě</u>	òb- <u>ədé</u>	òb- <u>éné</u>
19	ìf- <u>é</u>	ìf- <u>ǎ</u>	ìf- <u>ě</u>	ìf- <u>ədé</u>	ìf- <u>éné</u>

The 1ps root consists of a vowel and the syllable mé with a high tone. The vowel in some dialects is a, but in this sub-dialect it is not clear whether the underlying form should be a or ə. The tone of this vowel is unmarked since it takes its tone from the second tone of the concord prefix, e.g. èj- plus -Vmé form èj-ámé 'mine (class 5)'.<sup>4</sup>

The 2ps root consists of a vowel a, and the 3ps root of a vowel e. These roots have polar tone: if the second tone of the concord prefix is low, then the root tone is high and so forms a rising contour, as in òw-ǎ and èy-ǎ; but if the second tone of the concord prefix is high, then the root tone is low and so forms a falling contour, as in àb-ǎ and ím-ǎ.

The root for 1pp is -ədé, and for 2pp it is -éné. The tone of the first vowel is determined in the same manner as

tone of the first vowel in the lps root.

The concord prefixes listed in the lefthand column are all of the shape VC-. Each prefix consists of a tone on the first vowel and a floating tone which follows the consonant. This floating tone is realized on the first syllable of the person root. The tone of the prefix vowel is always low, but the floating tone varies according to the noun class. For classes 1 and 9 the floating tone is low, while for all other classes it is high.

In most of the possessive pronouns the entire prefix is realized. However, in the lps, lpp and 2pp forms of classes 1 and 9 the concord consonant has been deleted. In addition, in the lps forms of all classes with a bilabial concord consonant, the consonant has also been deleted<sup>4</sup>. In the case of the lps form of classes 1 and 9, not only has the concord consonant been deleted, but also the vowel sequence left by the consonant deletion process has been reduced: class 1 \*òw-àmé--→\*ò-àmé--→ òmé, and class 9 \*èy-àmé--→\*è-àmé--→ àmé. (See 3.1.1.5 for further discussion of this deletion process.)

## 5.5 Demonstrative pronouns

### 5.5.1 General

There is a three-way distinction in the demonstrative pronouns: namely, that between 'proximate (near the speaker)', 'distal (away from the speaker and potentially near the hearer)', and 'far distal (far away from the speaker and hearer)'. This three-way distinction is reduced to a two-way

distinction in various dialects and sub-dialects, either formally or functionally. That is, in some cases only a two-way distinction is found in terms of actual forms, while in other cases a three-way distinction is present in actual forms but in the use of the language primarily only two forms are used.

The demonstratives have a basic deictic and referential function, indicating specific referents of a term. But they may also be used anaphorically, indicating a previously mentioned referent of a term. However, this anaphoric use is less common than zero anaphora or the use of personal pronouns (see 5.1) to indicate previously mentioned referents. Consider the following examples:

- (20) a. à-kô            ò-yà            à-jí            fénè á-ńò  
 3ps:PFV-take 14-belly 3ps:PFV-birth also that-1  
 'she became pregnant and gave birth thus to her/  
that one (i.e. 'the child fairy spirit')'
- b. jě̀n? ò-kí'-sédé    ɛ̀m sè    Ñ-kâ-kô            Ñ-ńó  
 what? 2ps-CONT-say 1ps COMP 1ps:HORT-NEG-take this-1  
 'what?! you are telling me that I shouldn't marry  
her/this one!'

Usually in such cases as (20a) and (20b) a personal pronoun would be used, but the use of the demonstrative emphasizes the specificity of the referent.

The following table specifies the various demonstrative forms in terms of their noun classes and the basic three-way distinction between proximate, distal and far distal.



### 5.5.2 Number, class and gender

The various demonstrative forms listed in (21) in 5.5.1 can refer to either singular or plural, and to various genders, depending on the nouns with which they concord. For example:

- (23) a. Ñ-ñàm    Ñ-ñí    'this animal (gender 9/14)'  
          . 9-animal prox.-9
- b. Ñ-bín    Ñ-ñí    'these farms (gender 5/9)'  
          9-farm    prox.-9

### 5.5.3 Other grammatical features

The demonstratives are not marked for case or any other grammatical category than those specified in 5.5.2.

## 5.6 Interrogative pronouns and other question words

Interrogative pronouns and expressions have various forms. These forms are specified in the appropriate categories below. Interrogatives do not occur at the beginning of a sentence, but instead retain the position they have in declarative sentences, e.g. direct object after the verb.

### 5.6.1 Human: 'who?'

The interrogative 'who?' is formed with the adjectival interrogative bàgá-' 'which?' and the noun é-nê 'person?'. Note that this noun has the same root as Ñ-nê 'person (class 1)' and à-nê 'people (class 2)', but it belongs to noun class 5 rather than 1 or 2. See section 5.6.8 for further discussion of the adjectival interrogative bàgá-' 'which?'.

- (24) a. bàg(a)-é-nê    à-bá'-é  
          which?-5-person? 3ps:PFV-come-C.Foc  
          'who came?'

- b. ò-súm            bàg(a)-é-né  
 2ps:PFV-hit which?-5-person?  
 'who did you hit? (lit: 'you hit who?')'
- c. à-kádè            bàg(a)-é-né            é-dí  
 3ps:PFV-give which?-5-person? 5-food  
 'who did she give food to? (lit: 'she gave who food?')'
- d. à-jǎ-g            ó-gè̀m            nà            bàg(a)-é-né  
 3ps:HAB-go-IMPV 14-market with which?-5-person?  
 'who did she go to market with? (lit: 'she went to market with who?')'

This complex interrogative bàg(a)-é-né 'who?' optionally simplifies to the form é-né 'who?' without the adjectival interrogative:

- (25) a. é-né            à-bá'é  
 5-person? 3ps:PFV-come-C.Foc  
 'who came?'
- b. à-jǎ-g            ó-gè̀m            n(a) é-né  
 3ps:HAB-go-IMPV 14-market with 5-person  
 'who did she go to market with?'

#### 5.6.2 Thing: 'what?'

The interrogative 'what?' has both a simple and a complex form. The simple form is jě̀n 'what?' and the complex form derives from the adjectival interrogative bàgá-' 'which?' (see 5.6.8) and the noun è-júm 'thing': bàg(a)-é-júm 'what?'. The simple form is non-specific, while the complex form is specific, asking 'which (specific) thing?'.  
 The simple form is non-specific, while the complex form is specific, asking 'which (specific) thing?'.

- (26) a. jě̀n            é-gbó'é            mǎ́  
 what? 5:PFV-fall-C.Foc            here  
 'what fell here?'

- b. à-nàm-é'                      jě̀n  
 3ps:PFV-buy-C.Foc what?  
 'what did she buy?'
- c. à-súm-í                      yě̀ nà jě̀n  
 3ps:PFV-hit-C.Foc 3ps with what?  
 'what did he hit him with?'
- d. à-ǎíń-í                      ǎm kǎ jě̀n  
 3ps:PFV-surpass-C.Foc 1ps at what?  
 'he is better than me at what?'  
 'he surpasses me at what?'

Note that in (26d) jě̀n 'what?' has a high tone rather than a rising tone following the rising tone of kǎ 'in, on, at, to, from'. In fact, it behaves like a noun in that it has a high tone following any other high tone except the final high tone of the constituent-focus perfective, as in (26b). But in (27) it follows a verb form in the continuous which has a final high tone:

- (27) á-kí'-súm              jě̀n                      'what are they hitting?'  
 3pp-CONT-hit what?

The complex form bàg(a)-é-jũm 'what?' can be substituted for jě̀n in the sentences in (26):

- (28) a. bàg(a)-é-jũm      é-gbó'-é                      ñfá  
 which?-5-thing 5:PFV-fall-C.Foc here  
 'what (specific thing) fell here?'
- b. à-nàm-é'                      bàg(a)-é-jũm  
 3ps:PFV-buy-C.Foc which?-5-thing  
 'what (specific thing) did she buy?'

### 5.6.3 Place: 'where?'

The interrogative 'where?' has a simple form, a complex form, and an adjectival form. The adjectival form is included





These interrogatives consist of a concord root which has a high tone, and a complex affix consisting of a low tone nasal prefix Ñ- and a low tone suffix -nè. The difference between this interrogative form and the two discussed above is that the forms in (30) ask 'where is that specific referent of the term located?' as opposed to fǎn 'where(general, non-specific location)?' and bàg(a)-é-ji 'which specific location?'. An example of these adjectival interrogatives is given in (31).

- (31) á-nǎd                      Ñ-nènkáé; Ñ-nènkáé    Ñ-ñó-nè  
 3pp:PFV-search 1-woman; 1-woman    LOC:?-1-LOC:?  
 'they searched for the woman; where was that woman?'

Although the forms in (30) are adjectival interrogatives, they can also be used pronominally.

#### 5.6.4 Time: 'when?'

The interrogative 'when?' is formed with the adjectival interrogative bàgá-'' 'which?' and the noun è-bú 'time', bàg(a)-é-bû 'when?'. There is no simple form as in 5.6.2 with jě́n 'what?' and 5.6.3 with fǎn 'where?'. If the time period being considered is in terms of days, then the noun è-fú 'day' will be substituted for the noun è-bú 'time' in the complex form to give bàg(a)-ó-fû 'when? (lit: 'which day')'.

- (32) a. à-ké'-bá                      bàg(a)-é-bû  
 3ps-CONT-come which?-5-time  
 'when did she come?'
- b. á-sùm                      è-súm                      bàg(a)-ó-fû  
 3pp:PFV-clear 5-clearing which?-14-day  
 'when did they clear the bush?'

### 5.6.5 Manner: 'how?'

The interrogative 'how?' has the simple form nǎn. This simple form has the same CVC shape as the simple forms in 5.6.2 jě̀n 'what?' and 5.6.3 fǎ̀n 'where?'.<sup>7</sup> There is no complex form of this interrogative.

- (33) a. è-kí-yǐm      nǎn      'how are we going to do it?'  
lpp-CONT-do how?
- b. ó-gùdì      nǎn      'how have you sold them?'  
2ps:PFT-sell how? (i.e., how many for how much?)'
- c. ó-gùd-á      nǎn 'how are you selling them?'  
2ps:C.Foc-sell-IMPFV how? (i.e., 'what is the price per unit?')

Note that in (33a) and (33c) the tone of nǎn is high. This is identical to what happens with the simple forms in 5.6.2 and 5.6.3. Whenever these simple forms follow a high tone, even if the high tone is part of a rising contour, the rising tone on these simple forms simplifies to high.

### 5.6.6 Reason/purpose: 'why?'

The interrogative 'why?' is expressed in various ways. First, a complex interrogative clause can be used as in (34):

- (34) jě̀n    é-yǐm-í      kèn....      'why?'  
what? 5:PFV-do-C.Foc then

This complex interrogative form is introduced with the interrogative pronoun jě̀n 'what?' and includes the verb root -yǐm 'to do, make' with a class 5 prefix (impersonal prefix) and in the constituent-focus form. In addition, the conjunction kèn 'then, but, or' is required to introduce the following clause. The clause in (34) is glossed as 'why?',

and it provides a neutral way to ask 'why?'.

A less neutral way to ask 'why?' is to use jě̃n 'what?' as a verbal complement. This way of asking for the reason or purpose is less neutral than that in (34) in that the speaker implies by its use that he or she cannot see any sufficient reason for the given situation to hold. The interrogative jě̃n 'what?' can occur immediately after an intransitive verb without ambiguity, but after a transitive verb there is the potential for ambiguity when the direct object is deleted. In such cases, the interrogative is preceded by the preposition kǎ 'in, on, at, to, from'. Compare the following examples:

- (35) a. ò-bá'-é                      jě̃n  
2ps:FFV-come-C.Foc what?  
'why did you come?'  
'for what good reason did you come?'
- b. ò-kí'-súm              é-bǐn á-jì      jě̃n  
2ps-CONT-clear 5-farm that-5 what?  
'why are you clearing that farm?'  
'for what possible reason could you be clearing  
that farm?'
- c. ò-kí'-súm              jě̃n  
2ps-CONT-clear what?  
'what are you clearing?'  
'why are you clearing?'
- d. ò-kí'-súm              kǎ jě̃n  
2ps-CONT-clear at what?  
'why are you clearing?'  
'for what possible reason could you be clearing?'

Note that in (35c) where the direct object has been deleted the pronoun jě̃n 'what?' would be interpreted as the direct object unlike the jě̃n in (35b). As the question mark before

the second gloss of (35c) indicates, speakers vary as to the acceptability of this gloss as a possible interpretation of (35c). Instead, in order to get the second gloss of (35c) when the direct object of (35b) is deleted, the preposition kǎ 'in, on, at, to, from' is used before jěn as in (35d).

A third way to ask 'why?' is to use a psuedo-cleft construction or a reduction of it, as in (36a) and (36b), respectively.

- (36) a. è-čì N-jǐ ò-kí'súm é-bǐn é-ré' jěn  
 5-head REL-5 2ps-CONT-clear 5-farm 5-be what?  
 'why are you clearing the farm? (lit: 'the reason that you are clearing the farm is what?')'
- b. è-čì N-jǐ à-gùd-í' bì-yù  
 5-head REL-5 3ps:PFV-sell-C.Foc 8-yam  
 'why did she sell the yams? (lit: 'the reason that she sold the yams?')'

This construction involves the use of è-čì 'head, reason' to indicate the notion of reason or purpose. This construction is neutral in terms of speaker-attitude, like that in (34).

#### 5.6.7 Quantity: 'how many?'

The interrogative 'how many?' has a simple form which varies according to the noun class. The root of this form is -bíg 'how many?'. The form varies as follows:

(37)	1	-----	5	-----	9	é-bíg
	2	á-bíg	6	á-bíg	14	-----
	3	N-bíg	8	í-bíg	19	-----

Classes 1, 5 and 19 do not have plural nouns, and class 14 does not have them if the quantity is being specified or being asked for. Consider the following examples:

- (38) a. ɔ́-fòn            à-bǒn    á-bíg  
 2ps:FFT-have 2-child 2-how:many?  
 'how many children do you have?'
- b. à-yúi            Ñ-nón    Ñ-bíg  
 3ps:PFV-kill 3-bird 3-how:many?  
 'how many birds did he kill?'

5.6.8 Specific referent: 'which (one)?'

The interrogative 'which (one)?' is expressed in two ways. The first involves the use of the adjectival interrogative bàgá-'' 'which?' and a noun. The adjectival interrogative consists of a root bàgá which has the tone sequence low-high, plus a set of floating tones: namely, high-high-low in sequence. These floating tones are realized on the following noun to which the interrogative relates as a prefix. These floating tones override the lexical tones of the following noun, as in the following examples:

- (39) a. bàgá-'' + Ñ-ñàm 'animal' --> bàgá-Ñ-ñàm  
 'which animal?'
- b. bàgá-'' + è-bí 'pot' --> bàg(a)-é-bí  
 'which pot?'
- c. bàgá-'' + è-túm 'work' --> bàg(a)-é-túm  
 'which work?'
- d. bàgá-'' + è-bín 'farm' --> bàg(a)-é-bín  
 'which farm?'
- e. bàgá-'' + é-tí 'tree' --> bàg(a)-é-tí  
 'which tree?'
- f. bàgá-'' + é-fô 'cloth' --> bàg(a)-é-fô  
 'which cloth?'

The second way to express this interrogative is with one

of the set of specific-referent adjectival interrogatives. These interrogatives are similar to the locative adjectival interrogatives in (30) of 5.6.3, except that the final vowel is absent. There is a distinct form for each noun class as follows:

(40) Specific-referent Adjectival Interrogatives

1	Ñ-ńó-n	5	Ñ-jé-n	9	Ñ-ńé-n
2	Ñ-bá-n	6	Ñ-má-n	14	Ñ-bé-n
3	Ñ-mé-n	8	Ñ-bé-n	19	Ñ-fé-n

These interrogatives consist of a concord root which has a high tone, and a complex affix consisting of a low tone nasal prefix Ñ- and a nasal suffix -n. These interrogatives are used not only adjectivally, but also pronominally:

- (41) è-bǎn nǎŋ Ñ-jé-n  
 5-dance like SP:REF:?-5-SP:REF:?  
 'a dance like which one?'

The primary difference between these two ways of expressing the interrogative 'which (one)?' is categorial.. The first is a noun phrase and not a pronoun, while the second is (optionally) a pronoun. No semantic difference, if there is any, between the two ways of expressing this interrogative has yet been determined.

Note that the interrogative in (39a) could be glossed as 'what type of animal?'. With any generic term this type of interpretation is possible. However, in order to be explicit that the question is about the 'type' and not a 'specific referent', the noun è-kpàg 'kind, type' is used along with

the adjectival interrogative bàgá-''^ 'which?' as follows:

- (42) a. bàg(a)-é-kpâg í N-ñàm  
which?-5-type AM 9-animal  
'which type of animal?'
- b. bàg(a)-é-kpâg ' í-nón  
which?-5-type AM 19-bird  
'which type of bird?'

The associative marker occurs between the noun è-kpâg 'kind, type' and the following noun.

#### 5.6.9 Possession: 'whose N?'

The interrogative 'whose N?' is expressed by putting the noun in associative relationship with the interrogative forms for 'who?' discussed in 5.6.1:

- (43) a. è-tùm í bàg(a)-é-nê  
5-work AM which?-5-person?  
'whose work?'
- b. N-jû ' é-nê  
9-house AM 5-person?  
'whose house?'

#### 5.7 Indirect questions

Indirect questions are formed with relative clauses which have a generic term as the head noun phrase, e.g. N-nê N-ñò .... 'the person who....', è-jĩ N-jĩ.... 'the place where....' and so on. The following examples are sorted according to syntactic or semantic function:



(44) a. Subject

    N̄-kà-riní    N̄-nè    N̄-n̄ò    à-gbò-é'  
lps-NEG-know 1-person REL-1 3ps:PFV-fall-C.Foc  
'I don't know the person who fell'  
'I don't know who fell'

b. Direct object

    N̄-kà-riní    é-jùm    N̄-ji    à-nàm-é'  
lps-NEG-know 5-thing REL-5 3ps:PFV-buy-C.Foc  
'I don't know the thing that she bought'  
'I don't know what she bought'

c. Indirect object (post-verbal)

    N̄-kà-riní    N̄-nè    N̄-n̄ò    à-kàd-é'                    é-dí  
lps-NEG-know 1-person REL-1 3ps:PFV-give-C.Foc 5-food  
'I don't know the person she gave food to'  
'I don't know who she gave food to'

d. Indirect object (post-prepositional)

    N̄-kà-riní    N̄-nè    N̄-n̄ò    à-kàd-é'  
lps-NEG-know 1-person REL-1 3ps:PFV-give-C.Foc  
                  é-dí    mbá ày-ě  
                  5-food to 9-3ps  
'I don't know the person she gave food to (him)'  
'I don't know who she gave food to (him)'

e. Locative

    N̄-kà-riní    é-ji    N̄-ji    à-ji-í'  
lps-NEG-know 5-place REL-1 3ps:PFV-go-C.Foc  
'I don't know the place she went'  
'I don't know where she went'

f. Time

    N̄-kà-riní    é-bú    N̄-ji    à-bá-é'  
lps-NEG-know 5-time REL-5 3ps:PFV-come-C.Foc  
'I don't know the time he came'  
'I don't know when he came'

g. Benefactive (serial construction)

́N-kà-rìní ́N-nè ́N-ńò óbí à-yám-é  
 lps-NEG-know 1-person REL-1 Obi 3ps:PFV-cook-C.Foc

é-dí à-kádè yé  
 5-food 3ps:PFV-give 3ps

'I don't know the person Obi cooked food for'  
 'I don't know who Obi cooked food for'  
 (lit: 'I don't know the person who Obi cooked  
 food gave him')

h. Instrumental (serial construction)

́N-kà-rìní é-jùm ́N-ji óbí à-kó-é  
 lps-NEG-know 5-thing REL-1 Obi 3ps:PFV-take-C.Foc

à-bà ́N-ńàm  
 3ps:PFV-butcher 9-meat

'I don't know the thing that Obi took to butcher  
 the meat'  
 'I don't know what Obi took to butcher the meat'  
 (lit: 'I don't know the thing which Obi took  
 butchered the meat')

i. Comitative

́N-kà-rìní ́N-nè ́N-ńò óbí à-ji-í'  
 lps-NEG-know 1-person REL-1 Obi 3ps:PFV-go-C.Foc

nà yé  
 with 3ps

'I don't know the person that Obi went with (him)'  
 'I don't know who Obi went with (him)''

j. Manner

́N-kà-rìní é-kpàg ́N-ji à-yim-í'  
 lps-NEG-know 5-type REL-5 3ps:PFV-do-C.Foc

'I don't know the manner in which she did it'  
 'I don't know how she did it'

k. Reason/purpose

ń-kà-rìní      é-ǎi    ń-jí    à-gbò-é'  
1ps-NEG-know 5-head REL-5 3ps:PFV-fall-C.Foc  
'I don't know the reason that she failed'  
'I don't know why she failed'

l. Object of comparison

ń-kà-rìní      ń-nè      ń-ńò    óbí à-bén-é'  
1ps-NEG-know 1-person REL-1 Obi 3ps:PFV-run-C.Foc  
  
à-ǎíni                      yé  
3ps:PFV-surpass 3ps  
'I don't know the person that Obi can run faster  
than'  
'I don't know who Obi can run faster than'  
(lit: 'I don't know the person who Obi runs  
surpasses him')

From (44) it can be seen that the following nouns act as generic terms for constructing indirect questions: ń-nè 'person', é-júm 'thing', é-jí 'place', é-bú 'time', é-kpàg 'type, kind' and é-ǎi 'head'. There are other facts about relative clauses demonstrated by the examples in (44), but these will be discussed in section 5.8.

5.8 Relative pronouns and other relative words

The relative pronoun and relative words are of three types: 1) that which associates a noun with a clause or another noun, 2) that which associates a noun with a locative pronoun, and 3) that which associates a noun with an infinitival stem (i.e. without the class 5 prefix), or a small set of adjectival roots. In terms of function rather than form, the first type of relative word could be sub-divided into that which relates

to a clause and that which relates to another noun, a type of associative noun relationship.

### 5.8.1 Type I relative word

#### 5.8.1.1 Forms

The relative pronoun which associates a noun with a clause or another noun varies in form according to noun class as follows:

(45)	<u>Relative Pronouns</u> <sup>8</sup>	
		REL PRO
		<u>Ñ-</u>
	1 -nò	Ñ-nò
	2 -bá	Ñ-bá
	3 -mí	Ñ-mí
	5 -jí	Ñ-jí
	6 -má	Ñ-má
	8 -bí	Ñ-bí
	9 -nì	Ñ-nì
	14 -bí	Ñ-bí
	19 -fí	Ñ-fí

The relative pronoun consists of a concord root of the appropriate noun class and a prefix. The concord root has low tone in noun class 1 and 9, but high tone in all other classes. The prefix consists of a low tone nasal which is followed by a floating low tone. This floating low tone combines with the high tone of the concord root to form a rising contour.

#### 5.8.1.2 Relative clauses

Relativization on the various functions has already been exemplified in (44) of 5.7. The following points should be

made. First, there are two strategies used in relativization. One strategy is to delete the noun phrase which is coreferential with the head noun phrase. This occurs with subjects (44a), direct objects (44b), indirect objects (44c), and various oblique functions such as locative (44e), time (44f) manner (44j) and reason/purpose (44k). The second strategy is to leave a trace of the noun phrase in the form of a free pronoun. This occurs with an indirect object marked by a preposition (44d), with benefactive serial construction (44g), with the comitative (44i), and with the object of a comparative construction (44l).

Secondly, in view of these two strategies and the examples in (44), the following clarifications need to be made. First, in 4.4.1 it was noted that the benefactive semantic function can be expressed by the indirect object syntactic function as well as the serial construction used in (44g). Secondly, the deletion strategy used with indirect object in (44c) is optional. A trace may also be left as follows:

- (46) a.  $\dot{N}$ -tèm     $\dot{N}$ -ñò     $\dot{N}$ -kàd-é'                    yé    é-dí  
 1-friend REL-1 lps:PFV-give-C.Foc 3ps 5-food  
 'the friend who I gave food to'  
 (lit: 'the friend who I gave him food')
- b.  $\dot{N}$ -nàd     $\dot{N}$ -ñò    è-yim-í'                    yé    è-tùm  
 1-in:law REL-1 lpp:PFV-do-C.Foc 3ps 5-work  
 'the in-law who I worked for'  
 (lit: 'the in-law who I did him work')

Thirdly, besides the serial construction used for the instrumental function in (44h), it was noted in 4.4.4 that this function can also be expressed with a nà 'with'

prepositional phrase. Thus, the instrumental and the comitative (see (44i)) can be expressed identically. However, with the comitative a trace is obligatory, but with the instrumental (using a nà 'with' prepositional phrase) deletion of the noun phrase is, if not obligatory, strongly preferred. Compare (47) with (44i):

- (47) a. ì-tàmè      Ì-fí    Ì-bà-é'                      Ì-ñàm  
 19-machete REL-19 1ps:PFV-butcher-C.Foc 9-meat  
 'the knife which I butchered the meat with'  
 (lit: 'the knife which I butchered the meat')
- b. ? ì-tàmè      Ì-fí    Ì-bà-é'  
 19-machete REL-19 1ps:PFV-butcher-C.Foc  
                     Ì-ñàm    nà    Í-fé-nè  
                     9-meat with 3p-19-3p  
 'the knife which I butchered the meat with'  
 (lit: 'the knife which I butchered the meat with it')

Example (47b) is accepted by some speakers, but with some reluctance. Example (47a) is clearly preferred. Fourthly, the expression of the function 'locative' in (44e) does not involve a kǎ 'in, on, at, to, from' prepositional phrase. But even with the kǎ prepositional phrase, the deletion strategy is used:

- (48) a. Ì-jû      Ì-ñì    Ì-dí-í                      é-dí  
 9-house REL-9 1ps:PFV-eat-C.Foc 5-food  
 'the house where I ate food'  
 (lit: 'the house which I ate food')
- b. \* Ì-jû      Ì-ñì    Ì-dí-í                      é-dí    kǎ Í-ñé-nè  
 9-house REL-9 1ps:PFV-eat-C.Foc 5-food at 3p-9-3p  
 'the house where I ate food'  
 (lit: 'the house which I ate food in it')

As (48b) indicates, leaving a trace is unacceptable with the



noun phrase or the use of a free pronoun as a trace; 3) any function lower on the accessibility hierarchy than indirect object requires the use of a trace if the noun phrase relativized on is animate, but requires (or at least prefers) the deletion of the noun phrase if it is not animate. Thus, the semantic category of animacy plays a significant role in the choice of relativization strategies.

### 5.8.1.3 Relative associating noun with noun

The forms listed in 5.8.1.1 are also used to associate a noun with another noun. For a discussion of this use in contrast to the use of the associative marker to associate nouns with nouns, see section 4.4.7.

### 5.8.2 Type II relative word

A formally different relative word relates nouns with the locative pronouns (see 4.5) and only with the locative pronouns. This set of relative words has the following forms:

(51) Locative Relative Word<sup>9</sup>

		LOC REL
		<u>Ñ-</u>
1	-ñó	Ñ-ñó
2	-bá	Ñ-bá
3	-mí	Ñ-mí
5	-jí	Ñ-jí
6	-má	Ñ-má
8	-bí	Ñ-bí
9	-ñí	Ñ-ñí
14	-bí	Ñ-bí
19	-fí	Ñ-fí

The only difference between these forms and those in 5.8.1.1



is that in classes 1 and 9 the concord root of the locative relative word in (51) has a high tone rather than a low tone. Even though for all of the other classes the forms in (51) are identical to the relative pronouns in 5.8.1.1, they are considered to be different because they are paradigmatically so. The following are examples of this relative word:

- (52) a.  $\dot{N}$ - $\bar{n}\bar{a}m$      $\dot{N}$ - $\bar{n}\bar{i}$      $\bar{m}\bar{f}\bar{a}$     'the animal (which is) here'  
           9-animal REL-9 here
- b.  $\dot{N}$ - $\bar{n}\bar{a}m$      $\dot{N}$ - $\bar{b}\bar{i}$      $\bar{m}\bar{f}\bar{a}$     'the animals (which are) here'  
           14-animal REL-14 here

### 5.8.3 Type III relative word

The third type of relative word associates a noun with an adjectival root or stem. Some of the adjective roots include  $\bar{n}\bar{o}$  'good',  $\bar{b}\bar{i}$  'bad, wild',  $\bar{t}\bar{a}\bar{d}$  'other, different',  $\bar{f}\bar{e}$  'new', and so on. The adjective stems are derived from infinitives by deleting the class 5 prefix  $\dot{e}$ -:

- (53) a.  $\dot{e}$ - $\bar{g}\bar{u}\bar{d}$ - $\bar{u}\bar{m}$  'to sell'    -->  $\bar{g}\bar{u}\bar{d}$ - $\bar{u}\bar{m}$     'for sale'  
       b.  $\dot{e}$ - $\bar{s}\bar{e}\bar{n}$ - $\bar{e}\bar{m}$  'to write'    -->  $\bar{s}\bar{e}\bar{n}$ - $\bar{e}\bar{m}$     'for writing'

The form of this relative word is again different from the above sets in 5.8.1.1 and 5.8.2:

(54)                    Adjectival Relative Word

		ADJ REL
		$\dot{N}$ -`
		<u>          </u>
1	- $\bar{n}\bar{o}$	$\dot{N}$ - $\bar{n}\bar{o}$
2	- $\bar{b}\bar{a}$	$\dot{N}$ - $\bar{b}\bar{a}$
3	- $\bar{m}\bar{i}$	$\dot{N}$ - $\bar{m}\bar{i}$
5	- $\bar{j}\bar{i}$	$\dot{N}$ - $\bar{j}\bar{i}$
6	- $\bar{m}\bar{a}$	$\dot{N}$ - $\bar{m}\bar{a}$
8	- $\bar{b}\bar{i}$	$\dot{N}$ - $\bar{b}\bar{i}$

9	-ñì	Ñ-ñì
14	-bì	Ñ-bì
19	-fì	Ñ-fì

The prefix of these forms is identical to the prefix of the other relative word types: namely, a low tone nasal followed by a floating low tone. Therefore, this prefix is analyzed as the 'relative' prefix ('REL'). The difference between the three different relative words lies in the tone of the concord root. In the forms in (54) this tone is low for all classes. In this way they are similar to the roots of classes 1 and 9 in the relative pronouns. The low tone of the concord root and the floating low tone of the prefix combine to form a single low tone over the concord root. Again, even though the forms for classes 1 and 9 are identical to their relative pronoun form in 5.8.1.1, the forms in (54) are considered to be distinct because they are paradigmatically so. The following examples demonstrate the use of these forms:

- (55) a. Ñ-mǎn    Ñ-ñò    fɛ                    'a new child'  
           1-child REL-1 new
- b. è-júm    Ñ-jì    tǎd                    'another thing'  
           5-thing REL-5 other
- c. Ñ-ñàm    Ñ-ñì    gùd-úm                'meat for sale'  
           9-animal REL-9 sell-INF
- d. àŋ-wèd    Ñ-bì    sɛŋ-ém                'papers for writing'  
           14-paper REL-14 write-INF

#### 5.7.5 Restrictiveness and nonrestrictiveness

There is no formal distinction between restrictive and nonrestrictive relative clauses, as the following examples

demonstrate:

(56) a. Ñ-tèm òmé Ñ-ñò à-bá'é é-gé  
1-friend 1:my REL-1 3ps:PFV-come-C.Foc 5-today

à-rĩ kǎ Ñ-jù  
3ps-be at 9-house

'my friend who came today is at the house'  
'my friend, who came today, is at the house'

b. Ñ-dũm òmé Ñ-ñò à-màṅ-é' ò-màṅé  
1-husband 1:my REL-1 3ps:PFV-sick-C.Foc 14-sick

à-kpô é-ñàné  
3ps:PFV-die 5-yesterday

? 'my husband who was sick died yesterday!'  
'my husband, who was sick, died yesterday!'

Example (56a) could have either a restrictive or nonrestrictive interpretation, but example (56b) would probably be given only a nonrestrictive interpretation since culturally a woman is limited to only one husband and so there would be no set of husbands within which the restriction could apply. For this reason the first interpretation of (56b) is preceded with a question mark.

### 5.9 The associative marker

Even though the associative marker (AM) is a particle, it is presented here in this chapter because it functions as a part of the concord system of the noun classes, analogous to the pronouns. Except for a few compound nouns and nouns which are associated with one another by the relative pronoun in 5.8.1.1 (and discussed in 4.7.7), all nouns in associative relationship (cf. Welmers 1963 for this term) are indicated

with the AM. The AM occurs between the two nouns:

(57) noun + AM + noun

The AM consists of a phonologically determined segment but of a morphologically determined tone. In other words, the tone functions within the concord system. There are two dialectal variants of the AM in the Eyumojok-Ndebaya sub-dialect, with some speakers using one variant and other speakers using the other. The variants differ in how the segment is determined but not in how the tone is determined.

The first variant takes the following form:

(58) AM --> i /  $\_## \begin{cases} N- \\ C \end{cases}$   
 $\emptyset$  /  $\_## V$

The second variant, and the most commonly used in the Eyumojok-Ndebaya sub-dialect, involves vowel assimilation of the AM with the first root vowel of the preceding noun:

(59) AM --> i /  $\begin{matrix} V & C & (V) & ## & \_## & \begin{cases} N- \\ C \end{cases} \\ [+high] & & & & & \end{matrix}$   
 $\epsilon$  /  $\begin{matrix} V & (C) & (V) & ## & \_## & \begin{cases} N- \\ C \end{cases} \\ [-high] & & & & & \end{matrix}$   
 $\emptyset$  /  $\left\{ \begin{matrix} \_## V \\ V & ## & \_ \\ [+high] & & \end{matrix} \right\}$

This second variant requires a complex formulation. It probably derives from an earlier simple system like that in (58) where the segment was i<sup>10</sup>, but its present day form suggests that it has been incorporated into the first noun of the associative noun phrase as a type of noun suffix.



Notes to chapter 5

<sup>1</sup>The following variation is found in free pronouns across dialects and sub-dialects:

1ps (B): ngâm (Babong-Inokun of WE)

gâm (Abakpa of WE)

kâm (SE)

kâ (EE)

âm (most of WE)

m (Otu of WE)

2ps (A): wê (EE, SE, much of WE)

gwê (Ajasso of WE)

yê (Abijang and Mbarakom of WE)

3ps (A): wê (EE, SE)

yê (most of WE)

gyê (Ajasso of WE)

3ps (B): similar to 3ps (A) above except that most dialects and sub-dialects may reduce the form to ê.

1pp : wêd (EE)

êd (Eyumojok-Ndebaya, Ajasso of WE)

wûd (Bendeghe of WE)

ûd (Abijang and Mbarakom of WE)

ûd (SE)

ôd (Otu of WE)

2pp : wên (EE)

ên (Eyumojok-Ndebaya, Ajasso of WE)

wûn (Bendeghe of WE)

ûn (Abijang and Mbarakom of WE)

ûn (SE)

ôn (Otu of WE)

In addition, the Eastern Ejagham dialect has different forms for the 3ps pronoun for the various noun classes. These forms are identical to the 'distal' demonstratives used in the dialect: class 3 N-mû, class 5 N-ji, class 6 N-mâ, class 8 N-bû, class 9 N-ñi, class 14 N-bû, and class 19 N-fû.

<sup>2</sup>The following tables demonstrate some of the variation found across dialects and sub-dialects of Ejagham:

TABLE lps

Class	EE		WE				SE
	1	2	3	4	5	6	7
1	àmé	àmé	èwàmé	òmé	òmá	òmá	ámá
2	àbàá	àbàá	àbámé	---	àbómá	ámá	àbámá
3	òmàá	èmàá	èmámé	ámé	ímómá	ímá	ímámá
5	èzàá	èzàá	èzámé	èjámé	èjámá	èjámá	èjámá
6	àmàá	àmàá	àmámé	ámé	àmómá	ámá	àmámá
8	èbàá	èbàá	èbámé	émé	èbómá	émá	-----
9	àmé	àmé	èyámé	àmé	ámá	èyámá	ámá
14	òbàá	òbàá	òbámé	ómé	òbómá	ómá	òbámá
19	----	èfàá	ìfámé	---	ìfómá	ìfómá	ìfámá

TABLE lpp

Class	EE		WE				SE
	1	2	3	4	5	6	7
1	èwèré	èwèré	èwèré	òòré	òrá	òrá	ùdá
2	àbèré	àbèré	àbéré	-----	àbérá	àbérá	àbírá
3	òmèré	èmèré	èméré	àméré	ímérá	ímérá	ímúrá
5	èzèré	èzèré	èjéré	èjéré	èjérá	èjérá	èjírá
6	àmèré	àmèré	àméré	àméré	àmérá	àmérá	àmírá
8	èbèré	èbèré	èbéré	èbéré	èbérá	èbérá	-----
9	èyèré	èyèré	èyèré	èèré	èrá	èyírá	ìdá
14	òbèré	òbèré	òbéré	òbéré	òbérá	òbérá	òbúrá
19	-----	èfèré	ìféré	ìféré	ìférá	ìférá	ìfírá

The r and d in the above table are written phonetically rather than phonemically. The following is the key to the dialect code used above: EE 1: Mbinda-Tabo of Obang (southern EE); EE 2: Mfuni of Keaka (northern EE); WE 3: Agbokem of Cameroon (eastern WE); WE 4: Bendeghe of N. Etung (northern WE); WE 5: Bijang of S. Etung (western WE); WE 6: Mbarakom of Akamkpa Division (southwestern (?) WE); SE 7: Big Qua Town (SE).

<sup>3</sup>These roots probably consisted historically of an associative marker -a- which took its tone from the noun class (low for classes 1 and 9, high for all others) and a

person-number morpheme:

	<u>singular</u>	<u>plural</u>
1p	*-a-mé	*-a-dé
2p	*-a-(w)â	*-a-né
3p	*-a-(y)é	*-a-bǒ

<sup>4</sup>This deletion process is variable even among sub-dialects of WE as the tables in note number 2 above demonstrate.

<sup>5</sup>EE and some eastern sub-dialects of WE have only the 'proximate' and 'far distal' forms listed in (21), with the 'far distal' also functioning as the 'distal'. In addition, in EE the vowels in classes 3, 8, 14 and 19 are u instead of i. Thus, N-mí of class 3 of WE is N-mú in EE. The Obang sub-dialect (i.e. southern EE) has its own variant of the class 1 demonstratives: N-ŋó 'this' and N-ŋô 'that'.

Based on limited evidence, SE also seems to have only a two way distinction. The 'proximate' forms are essentially those in (21), though there are some tonal variations (i.e. polarization) in specific contexts which are unique to SE. The 'distal' forms differ in that they consist only of a tone and the concord root---no separate demonstrative prefix being present. The vowels in classes 3, 8 and 14 are u instead of i, but that of class 19 remains i.

<sup>6</sup>The Obang sub-dialect of EE (i.e. southern EE) does not have these forms. Instead, it has the following forms which have not been found elsewhere in Ejagham: 1 à-lǎ, 2 á-'lá, 3 N-'lá, 5 é-'lá, 6 á-'lá, 8 bé-'lá, 9 è-lǎ, and 14 ó-'lá.

<sup>7</sup>These three simple interrogative pronouns are very similar both tonally and segmentally to the adjectival interrogatives listed in (40) of 5.6.8. Based on this similarity they could be reconstructed in terms of tone, morpheme breaks and noun class membership as follows:

jěn < \*'-jé-n 'which (thing---class 5)' 'what?'  
nǎn < \*'-ná-n 'which (manner?---class 11)' 'how?'  
fǎn < \*'-fá-n 'which (location---class 16)' 'where?'

See Watters (1980) for discussion of classes 11 and 16 which are no longer found in Ejagham.

Coincidentally, some sub-dialects only have these three interrogative pronouns in a functional sense and no longer use the adjectival interrogatives listed in (40). In EE these three interrogatives are: jè 'what?', fà 'where?' and nà 'how?'



<sup>8</sup>In EE the tones on all of the forms listed in (45) are high-high. In addition, the vowels of classes 3, 8, 14 and 19 are u rather than i, as it is with the demonstratives (see note number 5 above).

<sup>9</sup>EE has two forms with locatives, the forms being distinguished by tone:

è-zùm Ñ-jǐ ñfá	'the thing which is here (specific)'
è-zùm Ñ-jí ñfô	'the thing which is there (specific)'
è-zùm Ñ-jǐ ògá	'the thing which is here (non-specific)'
è-zùm Ñ-jí ògô	'the thing which is there (non-specific)'

The forms have low-low-high if the locative is the 'proximate' form, but high-high if the locative is the 'distal' form.

<sup>10</sup>EE and some sub-dialects of WE have ɛ as the only segmental form of the AM. However, since i is found both in the northern sub-dialect of WE (Bendeghe specifically) and in the SE dialect, two areas which have been separated by distance and time; and since the ɛ in EE and some sub-dialects of WE is part of a larger morphological process, whereas the i in northern WE and SE is not part of a larger, more general process or structure, the AM is reconstructed for Proto-Ejagham as \*i.

CHAPTER 6

THE VERB

## 6.0 The Verb

### 6.1 Voice

#### 6.1.1 Impersonal

There is no morphologically marked passive, but there is an impersonal construction in which no noun phrase occurs in the subject position but the 3pp (i.e. noun class 2) subject prefix occurs on the verb. None of the other constituents change either in form or in their normal order. The verb has no special morphology. Thus, the form of such a construction is ambiguous as to whether it should be interpreted as having a 3pp subject marked by the subject prefix, or an impersonal subject. Consider the following examples:

- (1) a. á-súm            è-gúg            n(a) ð-fú    Ñ-bí  
3pp:PFV-hit 5-wood:drum with 14-day this-14  
'they beat the wood drum this morning'  
'the wood drum was beaten this morning'
- b. á-kádè            òm Ñ-tí        á-mì  
3pp:PFV-give lps 3-money that-3  
'they gave me that money'  
'I was given the money'  
'the money was given to me'
- c. á-túm            ð-tíb            òbá Ñ-túfám  
3pp:PFV-send 14-message to 1-chief  
'they sent a message to the chief'  
'a message was sent to the chief'
- d. á-yím            è-túm        á-ji        kǎ Ñ-jù  
3pp:PFV-make 5-work that-5 at 9-house  
'they did that work in the house'  
'that work was done in the house'

The impersonal construction can be used with any mood or aspect in the verb system. In order to specify a dynamic and

a static impersonal construction, the continuous and perfect forms of the verb are used. For example:

- (2) a. á-kí-gbě      Ñ-jù      á-ñi      nònò  
          3pp:CONT-build 9-house that-9 well  
          'they are building that house well'  
          'that house is being built well'
- b. á-gbě              Ñ-jù      á-ñi      nònò  
          3pp:PFT-build 9-house that-9 well  
          'they have built that house well'  
          'that house has been built well'

### 6.1.2 Decreasing valency

For a certain set of verbs it is possible to form an intransitive or stative verb from a transitive verb by not specifying the subject of the transitive verb. The process involved is not in any way related to the formation of the impersonal construction (see 6.1.1). In each case, the transitive verb root is formed by adding -i or -e to the intransitive or stative verb root, the height of the added vowel depending on the height of the first root vowel. (See 3.1.1.1 for discussion of this vowel assimilation process, and 8.2 for more discussion of this derivational process.)

Consider the following examples:

- (3) a. à-bíbi              è-báné      èj-è  
          3ps:PFT-spoil 5-bicycle 5-3ps  
          'he has spoiled his bicycle'
- b. è-báné      èj-è      é-bìb  
          5-bicycle 5-3ps 5:PFT-be:spoiled  
          'his bicycle is spoiled'

- (4) a. N-mǒn á-nǒ à-čágè N-fǒ èy-ě  
 1-child that-1 3ps:PFT-tear 9-cloth 9-3ps  
 'that child has torn his clothes'
- b. N-fǒ èy-ě à-čâg  
 9-cloth 9-3ps 9:PFT-be:torn  
 'his clothes are torn'

For other verbs which function in such pairs see section 8.2<sup>1</sup>.

A general process for decreasing the valency of transitive verbs is to change a specific direct object of the transitive verb to a cognate object. In this way the verb is detransitivized. Consider the following examples:

- (5) a. à-kí'yám é-gòmé  
 3ps-CONT-cook 5-plantain  
 'she is cooking plantain'
- b. à-kí'yám ó'yám  
 3ps-CONT-cook 14-cook  
 'she is cooking'
- (6) a. à-kí-kpǎn bí-yù  
 3ps-CONT-hoe 8-yam  
 'he is hoeing yams'
- b. à-kí-kpǎn ó-kpǎn  
 3ps-CONT-hoe 14-hoe  
 'he is hoeing'

This intransitive reading of verbs with cognate objects is supported by the fact that stative verbs, which never take direct objects, often take cognate objects without implying any transitive reading.

- (7) N-fǒ á-nǐ à-kí'bád ó'bád  
 9-cloth that-9 9-CONT-be:white 14-white  
 'those clothes are white/clean'  
 'those clothes are becoming white/clean'

Reciprocal intransitive verbs cannot be formed by expressing both the subject and direct object of the transitive verb as a compound subject of the intransitive verb. However, reciprocal intransitive verbs can be formed from verbs which take a nà 'with' prepositional phrase as a complement, the prepositional phrase having a comitative semantic function.

- (8) a. àyûg à-kí-nǒg            n(a) ðbí  
 Ayuk 3ps-CONT-fight with Obi  
 'Ayuk is fighting with Obi'
- b. àyûg n(a) ðbí á-kí-nǒg  
 Ayuk with Obi 3pp-CONT-fight  
 'Ayuk and Obi are fighting (each other)'
- (9) a. àyûg à-kí-súm        óbí  
 Ayuk 3ps-CONT-hit Obi  
 'Ayuk is hitting Obi'
- b. àyûg n(a) ðbí á-kí-súm  
 Ayuk with Obi 3pp-CONT-hit/clear  
 \* 'Ayuk and Obi are hitting each other'  
 'Ayuk and Obi are hitting/clearing (it)'

In (9b) a reciprocal reading is not possible, but a non-reciprocal reading in which the direct object has been deleted is possible. In order to make (9b) reciprocal the noun à-tém 'friends' would have to occur after the verb (see 5.3 for more discussion of this reciprocal expression).

### 6.1.3 Increasing valency

There is no means for increasing the valency of a verb. The causative is expressed with a serial construction which involves the verb root -yim 'to do, make' as the initial verb in the construction. The causee must always be specified

in such a construction, regardless of its agentivity.  
 Consider the following examples involving an intransitive,  
 transitive, and ditransitive verb, respectively.

- (10) a. à-yím            ètá à-gbô  
           3ps:PFV-make Eta 3ps:PFV-fall  
           'she made Eta fall'
- b. à-yím            ètá à-kpân            bì-yù  
           3ps:PFV-make Eta 3ps:PFV-hoe 8-yam  
           'she made Eta hoe/plant yams'
- c. à-yím            ètá à-kádè            Ì-tùfám Ì-ñám  
           3ps:PFV-make Eta 3ps:PFV-give 1-chief 9-animal  
           'she made Eta give the chief some meat'

#### 6.1.4 Reflexive and reciprocal verb forms

There are no reflexive or reciprocal verb forms. See sections 5.2 and 5.3 for the expression of these categories.

#### 6.2 Tense

The category 'tense' is not morphologically marked. Instead, the major categories are 'aspect' and 'mood'. In addition, the categories 'negative' and 'repetitive' intersect with these two major categories to produce the following eight sets of verb forms:

- (11) a. affirmative, non-repetitive, indicative  
       b. affirmative, repetitive, indicative  
       c. negative, non-repetitive, indicative  
       d. negative, repetitive, indicative  
       e. affirmative, non-repetitive, non-indicative  
       f. affirmative, repetitive, non-indicative  
       g. negative, non-repetitive, non-indicative  
       h. negative, repetitive, non-indicative

The verb forms for these various intersections are listed in the table in (12) and will be subsequently discussed in 6.3

(aspect), 6.4 (mood), 6.5 (repetitive), and 6.6 (negative).

(12)

Table of Aspects and Moods

		a. <u>Affirmative</u>	
		Non- Repetitive	Repetitive
Indicative		-Perfect -Perfective -Constituant- focus perfective -Continuous -Habitual/ concomitant -Constituent- focus imperfective	-Perfect -Perfective  -Continuous  -Dependent
	Non- Indicative	-Conditional -Imperative -Hortative/ optative	-Conditional -Imperative -Hortative/ optative

		b. <u>Negative</u>	
		Non- Repetitive	Repetitive
Indicative		-General -Imperfective -Cessative	-General -Imperfective -Cessative
	Non- Indicative	-Conditional -Counter-factual conditional -Imperative -Hortative/ optative	-Conditional -Counter-factual conditional -Imperative -Hortative/ optative



### 6.3 Aspect

One of the major morphological categories in the verb system is that of 'aspect'. This category divides into two major sub-divisions. One sub-division concerns the 'perfect', which primarily involves the relation between two points in time (Comrie 1976.52). The other sub-division concerns those forms which specify something about the temporal constituency of a situation, whether negatively or positively (Comrie 1976. 12, 16-40). In this latter case, the major distinction is between the 'perfective' and the 'imperfective'. The perfective verb forms view a situation in its entirety without specification of its internal temporal structure, while the imperfective forms view a situation in terms of its internal temporal structure. A situation may involve a state, process or event (cf. Comrie 1976.48f).

The categories 'perfective' and 'imperfective' are intersected by another category, namely, 'focus'. 'Focus' is defined in Watters (1979.185) as follows:

- (13) Focus: that information in the sentence which the speaker believes, assumes or knows the hearer does not share with him or her.

In this case, two types of focus are involved. In one type the aspect or truth value specified for a given situation is focused. This type of focus could be termed 'auxiliary-focus' (Hyman and Watters 1980), but since the forms which indicate such focus may also indicate more than just this type of focus, they will be called simply by their aspectual

names rather than 'aspectual-focus' forms. In the second type, the predicate or argument(s) specifying the given situation are focused. This type of focus could be termed 'constituent-focus' (Watters 1979), and in fact the forms which indicate this type of focus will be called 'constituent-focus' forms (s.g. 'constituent-focus perfective').

In the imperfective, a further distinction is made between the 'continuous' and the 'habitual/concomitant' aspects. In addition, the 'continuous' form may be used in situations which clearly involve constituent-focus even though its primary classification is not as a constituent-focus form.

#### 6.3.1 Perfect aspect

There is a special form for the perfect aspect. It is distinguished from the perfective aspect, and the conditional and hortative moods only by tone. It is formed in all persons except the 3ps by a high tone on the subject prefix and a low tone on the verb root. The domain of the low tone may be either one or two syllables. The tone on the 3ps form consists of a low tone on the subject prefix and a high-low tone sequence over the root. Such a sequence is realized as a falling tone on monosyllabic roots.

One consequence of the 3ps tone pattern is that in this one person there is no distinction between the perfect and the perfective. The following third person forms are given to demonstrate the formation of the perfect aspect. The 3pp forms are identical in terms of tone to the first and second

person forms. Both tone classes of verb roots are represented by a -CV, -CVC and -CVCV root.

(14) LOW-HIGH Verb Roots

- |    |                            |  |                       |
|----|----------------------------|--|-----------------------|
| a. | <u>-gbò</u> 'to fall'      |  |                       |
|    | à-gbò                      |  | á-gbò                 |
|    | 'he has fallen'            |  | 'they have fallen'    |
| b. | <u>-gbèg</u> 'to cut down' |  |                       |
|    | à-gbèg                     |  | á-gbèg                |
|    | 'he has cut down'          |  | 'they have cut down'  |
| c. | <u>-gùdí</u> 'to sell'     |  |                       |
|    | à-gùdí                     |  | á-gùdí                |
|    | 'he has sold (it)'         |  | 'they have sold (it)' |

(15) HIGH Verb Roots

- |    |                        |  |                        |
|----|------------------------|--|------------------------|
| a. | <u>-kó</u> 'to take'   |  |                        |
|    | à-kò                   |  | á-kò                   |
|    | 'he has taken (it)'    |  | 'they have taken (it)' |
| b. | <u>-fág</u> 'to sweep' |  |                        |
|    | à-fàg                  |  | á-fàg                  |
|    | 'he has swept (it)'    |  | 'they have swept (it)' |
| c. | <u>-káné</u> 'to fry'  |  |                        |
|    | à-kànè                 |  | á-kànè                 |
|    | 'he has fried (it)'    |  | 'they have fried (it)' |

In terms of the noun classes, the 3ps forms are also those for noun class 1, and the 3pp forms are those for noun class 2. In addition, noun class 9 is tonally identical to noun class 1, while the other noun classes are tonally identical to noun class 2: Ñ-jòg á-ñì à-gbò 'that elephant (class 9) has fallen', but ò-jòg á-bì ó-gbò 'those elephants (class 14) have fallen'<sup>2</sup>.

In the contextually least marked case, the perfect is interpreted as a present perfect with the following readings in the various inherent aspects indicated (cf. Comrie 1976: 41-51 and Vendler 1967 on the inherent aspects used here):

(16) a. Telic situation

N-sèn            N-wèd      á-fi  
 1ps:PFT-write 9-paper that-9  
 'I have written that letter (so it is ready to send)'

b. Achievement situation

á-sì            è-tég  
 3pp:PFT-reach 5-village  
 'they have reached the village (and are there now)'

c. Momentary situation

N-fièb            kǎ N'-táé á-fi  
 1ps:PFT-jump on 9-rock that-9  
 'I have jumped on that rock (so my feet hurt)'

d. Atelic, non-stative situation

ó-bènè  
 2ps:PFT-run  
 'you have run (so it is his turn)'

With stative situations, the perfect has a simple present tense reading:

(17) Stative situation

a. N-kèd                            'I'm tired'  
 1ps:PFT-be:tired

b. ó-fàn                            'you are big/fat'  
 2ps:PFT-be:big

If the context in which the perfect is used is clearly indicated as past time, then it may function as a pluperfect

or relative past.

- (18) k(a) k'á-bú á-jì à-bǒn. á-jì à-yé'b  
at 5-time that-5 2-child 3pp:PFT-go 6-water  
'at that time (when x happened) the children had gone  
to the water'

Besides its relation to time, the perfect can also specify various types of situations. Most commonly, it is used to express the present result of a past situation. This use is exemplified in (16) above.

Secondly, the perfect may be used to express a situation that started in the past and is still continuing:

- (19) tà N-ǒig mó'tò á-wà á-bá'k  
until 1ps:PFT-wait 9:vehicle 6-hour 6-two  
'I have already waited for a taxi for two hours (and I  
am still waiting)'

Lastly, the perfect can be used to express the recent past. The time period can be any time during the current day, but not yesterday. Thus, in the afternoon or evening one could say:

- (20) N-nám bì-yù k(a) ǒ-gám n(a) ǒ-fú N-bí  
1ps:PFT-buy 8-yam at 14-market with 14-day this-14  
'I bought the yams at market this morning'

Generally the perfective would not be used in this context. However, it is difficult to specify the actual temporal limitations on the use of the perfect and perfective in the recent past. Generally the perfect is not used as a recent past for a situation more than twelve or eighteen hours in the past, while the perfective is generally not used as a recent past for a situation less than four to six hours in

the past.

### 6.3.2 Perfective aspect

There is a formally marked perfective aspect in which a situation is viewed in its entirety without distinguishing the beginning, middle or end of the situation's temporal structure. In terms of forms, there is both a general 'perfective' and a 'constituent-focus perfective'.

#### 6.3.2.1 The perfective

The perfective is formed in all persons but the 3pp with a low tone on the subject prefix and a high-low tone sequence on the root. On a monosyllabic root this sequence is realized as a falling tone. In the 3pp, the subject prefix has a high tone. Otherwise, the root tone remains the same. Thus, while the perfect treats the 3ps as the unusual form, the perfective treats the 3pp as the unusual form.

The following examples are given to demonstrate the formation of the perfective forms. All persons are tonally identical to the 3ps forms, except for the 3pp forms.

#### (21) LOW-HIGH Verb Roots

a. -gbǒ 'to fall'

à-gbǒ

'she fell'

á-gbǒ

'they fell'

b. -gběg 'to cut down'

à-gběg

'she cut (it) down'

á-gběg

'they cut (it) down'

c. -gúdí 'to sell'

à-gúdi

'she sold (it)'

á-gúdi

'they sold (it)'



d. Atalic, non-stative situation

Ñ-bénè kpáád  
 lpa:PFV-run until  
 'I ran on and on'

The neutral reading of a stative situation with the perfective must also be that of a state which is no longer in force, as shown in (24):

(24) Stative situation

- a. Ñ-yim è-túm kpáád Ñ-kéd  
 lpa:PFV-make 5-work until lpa:PFV-be:tired  
 'I worked until I was tired'
- b. è-bin èj-ámé é-nób  
 5-farm 5-my 5:PFV-be:good  
 'my farm was good/fine'

However, the perfective is not simply used for past time. It can also co-occur with modals which give the perfective a different time reading. For example, with the future modal the perfective indicates future time (but still complete action):

- (25) a. tíg Ñ-sén Ñ-wéd á-ñi  
 FUT lps:PFV-write 9-paper that-9  
 'I will write that letter'
- b. tíg Ñ-fán kpè è-ji  
 FUT lps:PFV-be:big even 5-place  
 'I will really be fat'

With the abilitative modal, the perfective takes on a present tense reading as indicated in (26):

- (26) a. kón Ñ-aén Ñ-wéd á-ñi  
 ABL lps:PFV-write 9-paper that-9  
 'I can write that letter'



- b. kén Ñ-bénè Ñ-ǎíni wá  
 ABL lps:PFV-run lps:PFV-surpass 2ps  
 'I can run faster than you'

The perfective is also commonly used in the consequent of a conditional sentence. For example:

- (27) Ñ-sí ǎ-gèm, tíg Ñ-nám bì-yù  
 lps:COND-reach 14-market, FUT lps:PFV-buy 8-yam  
 'when/if I reach the market, I will buy yams'

The most prominent use of the perfective is to mark the main-event line in a narrative, whether in a folk tale or in a personal history. Consider this portion of narrative:

- (28) a. à-kán Ñ-sín á-ñi à-ji-kádè  
 3ps:PFV-carry 9-mangoss that-9 3ps:PFV-go-give  
 'He carried those mangos, and he went and gave
- b. Ñ-ñén ká Ñ-jù. Ñ-ñén à-yáb  
 1-mother at 9-house. 1-mother 3ps:PFV-suck  
 (them) to (his) mother at home. (His) mother sucked
- c. Ñ-sín á-ñi, à-gébè. Ñ-ñén à-báb  
 9-mangos that-9, 9:PFV-sweet. 1-mother 3ps:PFV-ask  
 those mangos, they were sweet. (His) mother asked
- d. yè sè Ñ-jí é-jùm wè ò-búb-í fán.  
 3ps COMP this-5 5-thing 2ps 2ps:PFV-pick-C.Poc where?  
 him, "This thing, where did you pick it?"

In this portion of narrative, the main-event line of "carried...went...gave...sucked...asked..." is completely expressed in the perfective aspect.

The perfective is also typically used in procedural discourse in which case it must receive an habitual reading. The habitual/concomitant verb form is typically absent in such a discourse, except in very restricted contexts. Consider

the following portion of procedural discourse:

- (29) a. kèn ó-bá-gbé' N-jù, ò-kí-jí  
 befora 2ps:HORT-come-build 9-house 2ps-CONT-go  
 'Before you build a house, you go
- b. k(a) é-tóm, ò-ji-gbùd N-tí ò-kèn  
 at 5-bush 2ps:PFV-go-cut 3-stick 2ps:PFV-carry  
 to the bush, you go and cut sticks, you carry (them)
- c. ò-bá-g kǎ N-jù? ò-ǔbí N-tí  
 2ps:HAB-come-IMPV at 9-house? 2ps:PFV-gather 3-stick  
 coming home. You gather those sticks.
- d. á-mì, ò-kí.  
 that-3 2ps:PFV-keep:  
 and keep (them).'

In this portion of procedural discourse, the main procedures of "go...cut...carry...gather...keep" are completely expressed in the perfective aspect.

#### 6.3.2.2 The constituent-focus perfectiva

This type of perfective is formed with a suffix which consists of a front vowel which assimilates to the height of the first root vowel. The tone of this form differs for the two different classes of verb roots. The probable underlying tones are specified in the Appendix in chapter 3. For each class of verb roots, the tone pattern is the same for all persons but the 3pp which has a high tone on the subject prefix in all cases. Consider the following examples in which the 3ps represents all persons but 3pp.

- (30) a. -gbǔ 'to fall'  
 à-gbò-é' 'he fell'  
 á-gbó-é' 'they fell'

- b. -gběg 'to cut down'  
 à-gbèg-é' 'he cut (it) down'      á-gbég'-é 'they cut (it) down'
- c. -gùdí 'to sell'  
 à-gùd-í' 'he sold (it)'      á-gúd-í 'they sold (it)'

(31) HIGH Verb Roots

- a. -kó 'to take'  
 à-kó'-é 'he took (it)'      á-kó'-é 'they took (it)'
- b. -fág 'to sweep'  
 à-fág'-é 'he swept (it)'      á-fág'-é 'they swept (it)'
- c. -káné 'to fry'  
 à-kán'-é 'he fried (it)'      á-kán'-é 'they fried (it)'

The tones are identical for the 3pp forms in both classes of verb roots. However, the two classes of verb roots are distinguished tonally in all other persons. Again, noun classes 1 and 9 have the tone pattern of the 3ps form, while all other classes have the tone pattern of the 3pp<sup>4</sup>.

The conditions under which this form of the perfective is used are varied. The only apparent connection between the different contexts is that there is information which is presupposed and other information which is not presupposed. The contexts in which it must be used include the following:

(32) Relative clause

Ñ-tém òmé Ñ-ñò à-nàm-é' bi-yù  
 1-friend 1:my REL-1 3ps:PFV-buy-C.Foc 8-yam  
 'my friend who bought (some) yams'

(33) Clauses with the focus particle

N-təm òmé nǎ à-nàm-é' bì-yù  
1-friend 1:my FOC 3ps:PFV-buy-C.Foc 8-yam  
'my friend bought yams'  
'it is my friend who bought yams'

(34) Clauses with an interrogative word

N-təm òmé à-nàm-é' jǎn  
1-friend 1:my 3ps:PFV-buy-C.Foc what?  
'what did my friend buy?'

(35) Answers to clauses with interrogative words<sup>5</sup>

N-təm òmé à-nàm-é' bì-yù  
'my friend bought yams'

Note that the constituent-focus perfective is used whether the focused noun phrase or interrogative word precedes or follows the verb. Compare (36a) with (33), and (36b) with (34)<sup>6</sup>,

- (36) a. N-təm òmé à-nàm-é' à-rì bì-yù  
1-friend 1:my 3ps:PFV-buy-C.Foc SP-be 8-yam  
'my friend bought only yams'
- b. bàg(a)-é-nê à-nàm-é' bì-yù  
which?-5-persons? 3ps:PFV-buy-C.Foc 8-yam  
'who bought the yams?'

The constituent-focus perfective is not only used in assertive contexts such as (33) and (35) above, but is also used in contrastive contexts. In (37a) the direct object is contrasted, and in (37b) the verb is contrasted. Note that the constituent focus form only occurs in the second clause of (37b), as the distinction in focus types is not made in the negative forms, an example of which occurs in the first



directional verb forms (see 6.11).

### 6.3.3 Imperfective aspect

There is a formally marked imperfective aspect, in which a situation is considered in terms of its internal temporal structure. In this aspect there is again the distinction between 'non-constituent-focus' forms and 'constituent-focus' forms. In terms of the 'non-constituent-focus' forms, there is a further distinction between 'continuous' and 'habitual/concomitant' aspects. However, the 'continuous' aspect is not absolutely a 'non-constituent-focus' form in that it may occur in contexts where the 'constituent-focus imperfective' generally occurs.

#### 6.3.3.1 The continuous

The continuous is formed with a prefix kí' 'CONT',<sup>7</sup> which occurs between the subject prefix and the verb root. The tone of the subject prefixes is low for all persons but 3pp, which is high. The verb roots have their basic tones. The high tone verb roots are downstepped after the kí' prefix. Consider the following examples, in which the 3ps forms are representative of all persons but the 3pp.

#### (38) LOW-HIGH Verb Roots

a. -gbǒ 'to fall'	
à-kí-gbǒ	á-kí-gbǒ
'he is falling'	'they are falling'
b. -gběg 'to cut down'	
à-kí-gběg	á-kí-gběg
'he is cutting (it) down'	'they are cutting (it) down'

- c. -gùdí 'to sell'  
 à-kí-gùdí                      á-kí-gùdí  
 'he is selling (it)'              'they are selling (it)'

(39) HIGH Verb Roots

- a. -kó 'to take'  
 à-kí-kó                          á-kí-kó  
 'he is taking (it)'              'they are taking (it)'
- b. -fág 'to sweep'  
 à-kí-fág                          á-kí-fág  
 'he is sweeping (it)'              'they are sweeping (it)'
- c. -káné 'to fry'  
 à-kí-káné                          á-kí-káné  
 'he is frying (it)'              'they are frying (it)'

Again, noun classes 1 and 9 are identical tonally to the 3pa forms, while all other classes are identical tonally to the 3pp forms.

In the least marked context, the invited reading of the continuous is that of a present tense or near future (i.e. immediate future):

- (40) Ì-kí'yám      é-dí              'I'm cooking food'  
 lps-CONT-cook 5-food      'I'll shortly be cooking food'

The second reading is generally uttered with the sense that 'cooking' is the very next activity to be undertaken.

For the various inherent aspects (cf. Comrie 1976:41-51 and Vendler 1967) which are indicated below, the following readings are the invited ones in the contextually least marked situations. In telic situations (or 'inherent aspect'), the situation is still in progress and is not yet completed.

(41) Telic situation

N-kí-sén      N-wéd    á-fi  
1ps-CONT-write 9-paper that-9  
'I'm writing that letter'

In achievement situations, the use of the continuous means that the achievement has not been accomplished. But more specifically, it indicates either a situation which will hold in the immediate future, or an intention.

(42) Achievement situation

è-kí-sí      é-tég  
1pp-CONT-reach 5-village  
'we are just about to reach the village'  
'we intend to reach the village'

In momentary situations, the use of the continuous gives an iterative reading.

(43) Momentary situation

à-kí-fáb      k(a) è-nùn  
3ps-CONT-jump on 5-bed  
'she is jumping (over and over again) on the bed'

In atelic, non-stative situations, the use of the continuous indicates a situation in progress, as exemplified in (40) above. In stative situations, the use of the continuous sometimes conveys an inchoative meaning, as in (44a) and (44b), although in certain other cases it indicates instead a state which already holds, as in (44c) and (44d).

(44) Stative situation

a. à-kí-fán                      'she is getting big'  
3ps-CONT-be:big





the unusual prefix allomorph opens the way to a possible future reinterpretation of the form as having a special 'prospective' prefix ké'bó-:

- (47) \*à-ké'bó'-sén                    'she is about to write'  
           3ps-PROSPEC-write/carve

The asterisk indicates that this is probably not yet the generally accepted segmentation, although for some speakers who are unaware that the verb root -bá 'to come' is involved may have already interpreted it as in (47):

Finally, if the context is specifically marked as past tense either by an adverb or the type of discourse (e.g. narrative discourse concerns past situations whereas procedural discourse does not), then the continuous has a past continuous reading. The following example comes from a story about the tortoise and the troubles of the world. The tortoise has the brilliant idea of putting the troubles of the world in a head basket and then dumping them in a rubbish heap, thus ridding the world of them:

- (48) kèn sè    yé    à-kí-kén            á-ččd            Ñ-má  
           but COMP 3ps 3ps-CONT-carry 6-matter this-6  
           'But (he said) that he was taking these troubles/matters  
           à-čémé                    k(a) é-ci  
           3ps:HORT-carry on    5-head  
           in order to carry them on his head.'

### 6.3.3.2 The habitual/concomitant

The habitual/concomitant is formed with a suffix which is probably reconstructable as -ǎg. This suffix is glossed as 'IMPERFECTIVE' since it is shared by the forms in 6.3.3.3.

The only root which attests the full form of the affix is -jĩ 'to go': -jĩ + ág --> -j-ǎg. Otherwise, with -CV roots the vowel is deleted leaving the velar<sup>8</sup>, and with -CVV, -CVC and -CVCV roots the velar is deleted, leaving the vowel.

The distinctive feature of the habitual/concomitant which distinguishes it from the constituent-focus imperfective of 6.3.3.3 is the tone on the subject prefix. In all persons but 3pp the tone is low. However, in 3pp the tone is high, with a following downstep feature in the case of high tone verb roots. This 3pp tone, according to dialect evidence, derives from an original falling tone<sup>9</sup>. Consider the following forms, in which the 3ps is representative of all persons except for 3pp.

(49) LOW-HIGH Verb Roots

- |    |                      |                      |
|----|----------------------|----------------------|
| a. | -gbǒ 'to fall'       |                      |
|    | à-gbǒ-g              | á-gbǒ-g              |
|    | 'she falls'          | 'they fall'          |
| b. | -gběg 'to cut down'  |                      |
|    | à-gbèg-á             | á-gbèg-á             |
|    | 'she cuts (it) down' | 'they cut (it) down' |
| c. | -gùdí 'to sell'      |                      |
|    | à-gùd-á              | á-gùd-á              |
|    | 'she sells (it)'     | 'they sell (it)'     |

(50) HIGH Verb Roots

- |    |                  |                  |
|----|------------------|------------------|
| a. | -kó 'to take'    |                  |
|    | à-kó-g           | á-kó-g           |
|    | 'she takes (it)' | 'they take (it)' |



- b. á-jèn-á                      á-kón-á,  
 3pp:HAB-walk-IMPV 3ps:HAB-sing-IMPV,  
 'they were walking and singing,

á-jèn-á                      á-kón-á  
 3pp:HAB-walk-IMPV 3pp:HAB-sing-IMPV  
 walking and singing'

Such a use of this verb form generally involves atelic situations. It also implies that the action is secondary or subordinate to the main action or event-line, i.e. it functions as an adverbial. In (53a) the concomitant form describes how the friend 'sat', and in (53b) the concomitant form provides a break in the main-event line, describing how the participants traveled from one point to another. By contrast, the use of the continuous à-kí-yén in place of à-yén-á in (53a) above would entail a coordinate situation to that expressed in the first clause. Finally, note that the neutral reading of the forms in (53b) is translated best as a past progressive.

The habitual/concomitant form can also be used as the imperfective hortative, the perfective hortative being the mood discussed in 6.4.4.

- (54) a. è-bú    á-bá                      òfá,    è-kón-á                      é-kòn.  
 5-time 3ps:COND-come here, 1pp:HAB-sing-IMPV 5-song  
 'when she comes here, let's be singing'
- b. Ì-kí-wóm                      béd    ò-fág-á                      Í-jù  
 1ps-CONT-want COMP 2ps:HAB-swesp-IMPV 9-house  
 'I want you to be sweeping the house'

In relation to the inherent aspect of a situation, the use of the habitual/concomitant in a telic situation, an

achievement situation or a momentary situation always results in an iterative reading. However, when the habitual/concomitant is used in an stelic, non-stative situation or a stative situation, the reading is simply durative and habitual.

As pointed out in 6.3.2.3, the verb roots -ji 'to go' and -bá 'to come' occur in their habitual/concomitant forms when the perfective forms are expected. In addition, one finds the habitual/concomitant form of these verbs frequently used before a directional verb form as shown in (55).

- (55) a. à-j-ǎg                      à-ji-bôn                      ð-čú  
           3ps:HAB-go-IMPV    3ps:PFV-go-pick 14-bitter:leaf  
           'she went and picked bitter leaf'
- b. à-bá-g                      à-bá-gúdi                      ì-sú  
           3ps:HAB-come-IMPV 3ps:PFV-come-all 19-pepper  
           'she came and sold peppers'

The habitual/concomitant form of these verb roots must also occur with the future modal tíg instead of the 'perfectiva' form.

- (56) a. tíg à-j-ǎg                      ó-jó'  
           FUT 3ps:HAB-go-IMPV 14-tomorrow  
           'he will go tomorrow'
- b. tíg à-bá-g                      kǎ N-jù                      èy-ǎ  
           FUT 3ps:HAB-come-IMPV at 9-house 9-your  
           'he will come to your house'

### 6.3.3.3 Constituent-focus imperfective

The constituent-focus imperfective is formed with the same imperfective suffix -ǎg 'IMPV' that occurs in the habitual/concomitant form. Again, the full suffix only occurs with

the verb root -ji 'to go'. Otherwise, with -CV roots the vowel of the suffix is deleted, leaving only the velar; while with -CVV, -CVC and -CVCV roots the velar is deleted, leaving only the suffix vowel.

It is primarily the prefix tone that distinguishes the constituent-focus imperfective from the habitual/concomitant. All persons have a high tone followed by a downstep feature with high tone verb roots, except the 3pp which has simply high tone. Consider the following forms for which 3pe is tonally representative for all persons but 3pp<sup>11</sup>.

(57) LOW-HIGH Verb Roots

a. -gbɔ̃ 'to fall'

á-gbɔ̃-g

'he falls/is falling'

á-gbɔ́-g

'they fall/are falling'

b. -gbɛ́g 'to cut down'

á-gbɛ́g-á

'he cuts (it) down/  
is cutting (it) down'

á-gbɛ́g-á

'they cut (it) down/  
are cutting (it) down'

c. -gùdí 'to sell'

á-gùdí-á

'he sells/  
is selling'

á-gùdí-á

'they sell/  
are selling'

(58) HIGH Verb Roots

a. -kó 'to take'

á-kó-g

'he takes (it)/  
is taking (it)'

á-kó-g

'they take (it)/  
are taking (it)'

b. -fág 'to sweep'

á-fág-á

'he sweeps (it)/  
is sweeping (it)'

á-fág-á

'they sweep (it)/  
are sweeping (it)'

α. -káné 'to fry'

á'-kán-á

'he fries (it)/  
is frying (it)'

ǎ'-kán-á

'they fry (it)/  
are frying (it)'

The distribution of this form is identical to that of the constituent-focus perfective discussed in 6.3.2.2. It is used in relative clauses, clauses with a focus particle, interrogative word questions, answers to interrogative word questions, and sentences with contrastive focus on an argument or the predicate. When it is used in these contexts it may have either a continuous reading or an habitual reading.

However, in these same contexts the continuous aspect discussed in 6.3.3.1 may also be used. In such cases, the continuous has an unambiguous continuous reading. Thus, there is overlap in the expression of the continuous reading in these contexts: either the constituent-focus imperfective may be used or the continuous. However, if only an habitual reading is desired, then the constituent-focus imperfective must be used.

#### 6.3.4 Combinations and restrictions on aspectual values

The various aspectual values discussed in 6.3 cannot be combined to form new, complex aspectual values. In addition, these aspectual distinctions are not made in any other mood than the indicative, whether declarative or interrogative, and they are also not distinguished in infinitival forms. However, there is no restriction on the use of the various aspects in relation to the impersonal construction discussed in 6.1.1.



## 6.4 Mood

The category 'mood' is another major verbal category in the language. The distinctions within this category can be specified in various ways, but perhaps the major distinction is that between the indicative mood and the non-indicative moods. Within the non-indicative moods, a major distinction can be made between the conditional mood and non-conditional moods. The non-conditional moods can then be further divided between the imperative and the hortative/optative.

### 6.4.1 Indicative

The major modal category in the language is the indicative mood. This mood specifies that the speaker believes or knows that the situation about which he or she is asserting is one which holds in reality, or that the speaker wants to know if the situation about which he or she is questioning actually holds in reality. It is neither contingent or simply desired since it is already either taken to be the case, or questioned if it is not the case. The aspectual values discussed in 6.3 are all subsumed under this mood, and there are no further distinctions to be made within this mood.

### 6.4.2 Conditional

One of the major non-indicative moods is the conditional. This mood can be sub-divided into a 'simple conditional' and a 'counter-factual conditional'. The simple conditional is formed with a high tone on the subject prefix and the lexical tones on the verb root, except that there is a downstep feature

between the prefix and the high tone verb roots. All persons and noun classes are tonally identical in this form, meaning that 3ps and 3pp are not formally distinguished. This neutralization is exemplified in (59) and (60).

(59) LOW-HIGH Verb Roots

- |    |        |                        |        |                         |
|----|--------|------------------------|--------|-------------------------|
| a. | -gbǒ   | 'to fall'              |        |                         |
|    | á-gbǒ  |                        | á-gbǒ  |                         |
|    |        | 'if she fell'          |        | 'if they fell'          |
| b. | -gběg  | 'to cut down'          |        |                         |
|    | á-gběg |                        | á-gběg |                         |
|    |        | 'if she cut (it) down' |        | 'if they cut (it) down' |
| c. | -gùdí  | 'to sell'              |        |                         |
|    | á-gùdí |                        | á-gùdí |                         |
|    |        | 'if she sold (it)'     |        | 'if they sold (it)'     |

(60) HIGH Verb Roots

- |    |        |                      |        |                      |
|----|--------|----------------------|--------|----------------------|
| a. | -kó    | 'to take'            |        |                      |
|    | á-kó   |                      | á-kó   |                      |
|    |        | 'if she takes (it)'  |        | 'if they take (it)'  |
| b. | -fág   | 'to sweep'           |        |                      |
|    | á-fág  |                      | á-fág  |                      |
|    |        | 'if she sweeps (it)' |        | 'if they sweep (it)' |
| c. | -káné  | 'to fry'             |        |                      |
|    | á-káné |                      | á-káné |                      |
|    |        | 'if she fries (it)'  |        | 'if they fry (it)'   |

The simple conditional may be used to express a condition upon which another situation depends, or it may express the temporal dependence of one situation on another. The simple conditional may be introduced with the forms ájǒé 'if (lit: 'if he/she is')' or átǒgá 'if (lit: 'if he is saying?')', or it may have no introductory particles at all, the tone being

sufficient to indicate the conditional mood. The temporal sense is generally introduced with the noun è-bú 'time'.

- (61) a. (ájòé) á-sí ó-gèṃ, tíg à-nám bì-yù  
 (if) 3ps:COND-reach 14-market, FUT 3ps:PFV-buy 8-yam  
 'if she reaches the market, she will buy (some) yams'
- b. è-bú á-sí ó-gèṃ, tíg à-nám bì-yù  
 5-time 3ps:COND-reach 14-market, FUT 3ps:PFV-buy 8-yam  
 'when she reaches the market, she will buy (some) yams'

The counter-factual conditional is identical to the constituent-focus perfective discussed in 6.3.2.2 (or it could be said that the constituent-focus perfective is used to express the counter-factual conditional). This same form may also express a hypothetical conditional.

- (62) (ájòé) à-gùd-í' ìnà bí-yù, kén à-fṣn  
 (if) 3ps:PFV-sell-C.Foc thus 8-yam, ABL 3ps:PFV-have  
 'if she had sold yams in this way, she could have had  
 'if she sold yams in this way, she would have
- Ṃ-tí  
 3-money  
 money'  
 money'

The perfective temporal construction which is parallel to the temporal use of the simple conditional in (61b) involves a dependent temporal clause as in (63). Formally it is a relative clause, but it is often simply introduced by the relative pronoun Ṃ-ji 'REL-5' without the head noun phrase è-bú 'time'. Again, the verb form is that of the constituent-focus perfective.

- (63) (è-bú) Ñ-jí à-gùd-í' bi-yù, à-fšn  
 (5-time) REL-5 3ps:PFV-eell-C:Foc 8-yam, 3ps:PFV-have  
 'when she had sold the yams, she had  
 Ñ-tí  
 3-money  
 money'

#### 6.4.3 The imperative

The imperative mood is formed only in the second person singular and plural. This verb form is the only one which is without a subject prefix. The 2pp uses the suffix -šn '2pp' (see section 6.10).

The tone on low-high verb roots is generally a rising tone on -CV and -CVC roots (although some -CV roots become -CV-V in their imperative form), and a low tone followed by a falling tone on -CVV and -CVCV roots. Consider the following examples:

#### (64) LOW-HIGH Verb Roots

- |    |                            |                           |
|----|----------------------------|---------------------------|
| a. | <u>-sũ</u> 'to wash'       |                           |
|    | eũ                         | sù-šn                     |
|    | 'wash (them)!'             | 'wash (pl) (them)!'       |
|    | sũ Ñ-fš                    | sù-šn Ñ-fš                |
|    | 'wash the clothes!'        | 'wash (pl) the clothes'   |
| b. | <u>-gběg</u> 'to cut down' |                           |
|    | gběg                       | gběg-šn                   |
|    | 'cut (it) down!'           | 'cut (pl) (it) down!'     |
|    | gběg é-tí                  | gběg-šn é-tí              |
|    | 'cut down the tree!'       | 'cut (pl) down the tree!' |

c. -gùdí 'to sell'

gùdí

'sell (it)'

gùdí bì-yù

'sell the yams'

gùd(i)-èn

'sell (pl) (it)!'

gùd(i)-èn bì-yù

'sell (pl) the yams!'

The tone on high tone verb roots is a high-low tone sequence, realized as a falling tone on monosyllabic roots. However, if the verb is followed by an object, the tone is simply high. Consider the following examples:

(65) HIGH Verb Roots

a. -kó 'to take'

kó

'take (it)!'

kó bí-yù

'take the yams!'

kó-èn

'take (pl) (it)!'

kó-èn bì-yù

'take (pl) the yams!'

b. -fág 'to sweep'

fág

'sweep (it)!'

fág Ñ-jù

'sweep the house!'

fág-èn

'sweep (pl) (it)!'

fág-èn Ñ-jù

'sweep (pl) the house!'

c. -káné 'to fry'

kánè

'fry!'

káné bí-yù

'fry the yams!'

kán(é)-èn

'fry yams!'

kán(é)-èn bì-yù

'fry (pl) the yams!'

As in all other verb forms, -CVV roots behave exactly like -CVCV verb roots. For example:

(66) a. LOW-HIGH Verb Roots

-fìḁé 'to light'

fìḁé

'light (it)!'

fìḁé Ñ-gûn

'light the fire!'

fìḁ(é)-én

'light (pl) (it)!'

fìḁ(é)-én Ñ-gûn

'light (pl) the fire!'

b. HIGH Verb Roots

-sáé 'to chew'

sáé

'chew (it)!'

sáé Ñ-fiam

'chew the meat!'

sá(é)-én

'chew (pl) (it)!'

sá(é)-én Ñ-fiam

'chew (pl) the meat!'

Generally the imperative is used in conversational discourse, whether the conversation is embedded in some other (non-conversational) discourse or not. However, examples of an unusual use of the imperatives for the verbs -mèné 'to know' and -yén 'to see' have been found in expository discourse. Formally, there is no conversation between the speaker and the addressee in expository discourse, i.e. there is no rapid exchange of utterances between the speaker and the addressee. Instead, the speaker is carrying on a monologue. But by using these imperatives, the speaker is able to shift from an indefinite second person to speaking directly to the addressee in the middle of the monologue. Consider the following examples, but note that they are infrequent.

- (67) ð-tùb            ð-jí.    é-gbó            Ñ-té    nà    Ñ-kób,  
2ps:PFV-throw 5-kola. 5:PFV-fall 9-heads with 9-tails,  
'You throw the kola.' It falls heads and tails,

mènɛ sè á-kú á-mà á-nɔ́b  
 know:IMPER COMP 6-ancestor:ceremony that-6 6:PFV-good  
know that that ancestor ceremony was good!'

- (68) kèn wè sè à-kàdɛ wá ɛ-di. yén ɛ-di,  
 then 2ps COMP 3ps:HORT-give 2ps 5-food: see:IMPER 5-food,  
 'Then you (say) that she should give you food. See the  
yén ó-ràn? ð-kɔ́ ð-rân ð-ki  
 see:IMPER 14-fufu. 2ps:PFV-take 14-fufu 2ps:PFV-put  
 food, see the fufu! You take the fufu and keep it.'

In (67) one would expect the vsrb -mènɛ 'to know' to be in the perfective ð-mènɛ 'you know'. In (68) one would expect the perfective form of the verb -kàdɛ 'to give': à-kádɛ 'she gives'. Instead, one finds the imperative of -yén 'to see'. The use of these experiential or psychological verbs in the imperative form has the effect of making the situation which they express more real than if it were expressed with a perfective form.

#### 6.4.4 Hortative/optative

The hortative/optative mood, from here on referred to as the 'hortative', is formally indicated by a separate tone pattern on the verb. In the 3ps the tone of the subject prefix is low, but for all other persons it is high. Thus, unlike all of the other moods and aspects which mark 3pp as a distinct form in terms of tone from all other persons, the perfect and the hortative mark 3ps as a distinct form:

With low-high verb roots, the lexical tone occurs in 3ps, but in all other persons the lexical tone is altered to a surface tone of a high followed by a downstepped high. With

high tone verb roots; the lexical tone occurs in all persons. Consider the following examples, in which 3pp represents all persons in terms of tone except for 3ps:

(69) LOW-HIGH Verb Roots

- |    |                              |                                |  |
|----|------------------------------|--------------------------------|--|
| a. | -sǔ 'to wash'                |                                |  |
|    | à-sǔ                         | á-sǔ'                          |  |
|    | 'he should wash (it)'        | 'they should wash (it)'        |  |
| b. | -gběg 'to cut down'          |                                |  |
|    | à-gběg                       | á-gbě'g                        |  |
|    | 'he should cut (it)<br>down' | 'they should cut (it)<br>down' |  |
| c. | -gùdí 'to sell'              |                                |  |
|    | à-gùdí                       | á-gùdí                         |  |
|    | 'he should sell (it)'        | 'they should sell (it)'        |  |

(70) HIGH Verb Roots

- |    |                        |                          |  |
|----|------------------------|--------------------------|--|
| a. | -kó 'to take'          |                          |  |
|    | à-kó                   | á-kó                     |  |
|    | 'he should take (it)'  | 'they should take (it)'  |  |
| b. | -fág 'to sweep'        |                          |  |
|    | à-fág                  | á-fág                    |  |
|    | 'he should sweep (it)' | 'they should sweep (it)' |  |
| c. | -káné 'to fry'         |                          |  |
|    | à-káné                 | á-káné                   |  |
|    | 'he should fry (it)'   | 'they should fry (it)'   |  |

The hortative is used in various ways. First, it is commonly used to express a command or to exhort someone as in (71), or it can be introduced by a complementizer in which case it reports a command or exhortation as in (72):

- (71) a. é-ji' 'let's go!'  
lpp:HORT-go



- b. à-bá 'he should come'  
 3ps:HORT-come
- (72) a. è-éédè yè eè à-bá  
 lpp:PFV-say 3ps COMP 3ps:HORT-come  
 'we told him that he should come'
- b. Ì-kùb yè béd à-kǎg í-kòm  
 lps:PFV-greet 3ps COMP 3ps:HORT-put l9-power  
 'I encouraged him to work hard (lit: to put power  
 k(a) è-tùm  
 in 5-work  
 in (his) work)'

Secondly, it is commonly used to express purpose which would be translated as 'in order to':

- (73) tíg Ì-j-ǎg ó-gèm Ì-jí-nám é-gòmé  
 FUT lps:HAB-go-IMPV 14-market lps:HORT-go-buy 5-plantain.  
 'I will go to the market in order to buy plantain'

Thirdly, it is used in construction with a certain set of verbs. For example, the considerative verb -wóm 'to want', regardless of its aspect or mood, takes a complement in the hortative:

- (74) Ì-wóm béd à-súm é'-súm  
 lps:PFV-want COMP 3ps:HORT-clear 5-clearing  
 'I wanted (him) to clear bush (but he didn't)'

Five other verbs involved in such constructions are:

- (75) a. Causative: -yím 'to do, make'  
 b. Initiality: -rán Ì-bá 'to be first (lit: to touch road)'  
 c. Non-initiality: -tób 'to follow'  
 d. Lastness: -síg Ì-jèm 'to be last (lit: to escort the back)'  
 e. Inception-of-motion: -yéb 'to uproot'

With each of these five verbs or 'verbals' (verb plus noun), the hortative is used as a complement only when the first verb or verbal is in the continuous, the hortative or the imperative. If the first verb or verbal is in the perfect, then the complement must be in the perfect (except for the causative which permits the complement to also be in the continuous if the causative is in the perfect). If the first verb or verbal is in the perfective or conditional, then the complement must be in the perfective. Finally, if the first verb or verbal is in the habitual, then the complement must also be in the habitual. Consider the following examples with the hortative in the complement:

(76) Causative:

yim          ábǒ á-ǒó                      ó-ràn      á-bì  
 do:IMPER 3pp 3pp:HORT-pound 14-fufu that-14  
 'make them pound that fufu'

(77) Initiality:

ò-kí-rǎn          N'bá      ó-sí                      áfò  
 2ps-CONT-touch 9-road 2ps:HORT-reach there  
 'you are the first to reach there'  
 (lit: 'you are touching road you should reach there')

(78) Non-initiality:

à-sédè          ðm    èt      N-tób                      yè      N-gúdí  
 3ps:PFV-say 1ps COMP 1ps:HORT-follow 3ps 1ps:HORT-sell  
 'he told me that I should sell after him (lit: 'he told  
 bí-yù  
 8-yam  
 me that I should follow him I should sell yams)'

(79) Lastness:

Ñ-kí'síg            Ñ-jəm    Ñ-sén            Ñ-wèd  
1ps-CONT-escort 9-back 1ps:HORT-write 9-paper  
'I am the last one to write a letter'  
(lit: 'I am escorting the back I should write letter')

(80) Inception-of-motion:

à-kí'yéb            à-ji            kǎ Ñ-jù  
3ps-CONT-uproot 3ps:HORT-go to 9-house  
'he is getting up to go home'  
(lit: 'he is uprooting he should go home')

Finally, the hortative is used following the (repetitive) dependent temporal (see 6.5.7), which is used either as an 'scho' of a preceding situation or to express an unexpected or sudden situation:

(81) à-kpò-tš                      à-bá....  
3ps:DEP:TEMP-REP-talk 3ps:HORT-come....  
'having come....'  
'suddenly he came....'

Note that the hortative in this section is, in terms of aspect, perfective. The imperfective hortative is expressed by the habitual (see 6.3.3.2).

6.4.5 Intentional

There is no special form for the intentional mood. Instead, this mood may be expressed by the verb -wóm 'to want' followed by a complement clause, by the construction exemplified in (45) involving the continuous aspect, the verb root -ji 'to go', and a following gerund, or by the hortative after a verb of motion as in (73).

#### 6.4.6 Debitive (obligation)

There is no simple verb form for expressing the debitive, i.e. an obligation to do something. Instead, a construction involving either -fɔ̃n 'to have' or -rɪ 'to be' plus a complement clause is used. If the verb is -fɔ̃n 'to have', then the verb of the complement clause is in its infinitive form. With -fɔ̃n 'to have', if the perfective aspect is used, it must take the form of the constituent-focus perfective (see 6.3.2.2):

- (82) a. N-fɔ̃n-é'                      k(a) ɛ̃-gùd-úm      bí-yù  
           lps:PFV-have-C.Foc at    5-sell-INF 8-yam  
           'I have to sell yams'/'I had to sell yams'
- b. é-fɔ̃n                      k(a) ɛ̃-sɛ̃n-ém      N-wèd  
           lpp:PFT-have at    5-write-INF 9-paper  
           'we have to write a letter'

If the verb is -rɪ 'to be', then the verb of the complement clause must be in the hortative mood:

- (83) N-dĩ      N-súm                      é-bín      èj-ámé  
           lps-be lps:HORT-clear 5-farm 5-my  
           'I have to/must clear my farm'

For some speakers there is a restriction on the use of -fɔ̃n 'to have' and -rɪ 'to be' in relation to an adverb of time. The form in (82a) can only be used with past time such as 'yesterday' or in a counter-factual conditional. However, if the time is either 'today' or 'now', or 'tomorrow', then the verb must be -rɪ 'to be'. Thus, for these speakers the continuous and habitual cannot be used with -fɔ̃n 'to have' in such a construction. But note that there is variation in

judgment on this within WE and across dialects.'

In the debitive there is no distinction between moral and physical obligation, nor are there degrees of obligation specified.

#### 6.4.7 Potential (ability)

There is no simple verb form to mark a potential mood, i.e. the ability to do something. However, there is an abilitative modal particle kén<sup>12</sup> 'ABL' which is generally used with a verb in the perfective, but also can occur with a verb in the habitual/concomitant aspect.

- (84) kén Ñ-bénè            á-bii            Ñ-óíni            wá  
ABL 1ps:PFV-run 6-haste/race 1ps:PFV-surpass 2ps  
'I can run faster than you'  
(lit: 'I can run a race I surpass you')

There is no distinction made between physical ability and permission to do something, as indicated by the following example:

- (85) kén à-j-ǎg            ó-gèm  
ABL 3ps:HAB-go-IMPFV 14-market  
'he is permitted to go to the market'

The distinction between a learned ability and an inherent ability is not formally marked, but more commonly a learned ability is expressed with the verb -mènè 'to know' in construction with an infinitive, the whole construction meaning 'to know how to do x':

- (86) yé à-mènè            è-kpà            è-tèn-ém  
3ps 3ps:PFV-know 5-sleeping:mat 5-weave-INF  
'she knows how to weave sleeping mats'



b: ð-kâ-jî  
2ps:HORT-NEG-go

'you should not go!'  
'don't you go!'

#### 6.4.11 Narrative

There is no special form for narrative. Instead, the perfective (see 6.3.2.1) is used as the narrative mood.

#### 6.4.12 Consecutive

There is no special consecutive form. Instead, a sequence of clauses in which one situation follows from another is simply expressed with verbs in the perfective form, similar to the narrative use of the perfective (see 6.4.11).

### 6.5 Repetitive

Although the repetitive could be considered an aspect in some cases, it could also be considered a mood in other cases. In addition, the repetitive is pervasive: it co-occurs with most aspects in 6.3 and all moods discussed in 6.4. For these reasons it is considered here under a separate section.

The repetitive is marked with the prefix kpɔ́<sup>13</sup> 'REP' which has a lexical high tone. This high tone is followed by a downstep feature in the case of high tone verb roots. In certain cases a different tone simply replaces the lexical tone. This prefix occurs immediately before the verb root.

#### 6.5.1 Repetitive perfect

The repetitive perfect is formed in the same way as the perfect (cf. 6.3.1), except that the repetitive prefix is treated like the verb root in terms of tone, and the verb root simply maintains its lexical tone. Consider the

following forms in which the 3pp forms represent all other persons tonally except for 3ps.

(89) LOW-HIGH Verb Roots

- |    |                               |                                 |
|----|-------------------------------|---------------------------------|
| a. | <u>-gbǒ</u> 'to fall'         |                                 |
|    | à-kpǒ-gbǒ                     | á-kpǒ-gbǒ                       |
|    | 'she has fallen again'        | 'they have fallen again'        |
| b. | <u>-gběg</u> 'to cut down'    |                                 |
|    | à-kpǒ-gběg                    | á-kpǒ-gběg                      |
|    | 'she has cut (it) down again' | 'they have cut (it) down again' |
| c. | <u>-gùdí</u> 'to sell'        |                                 |
|    | à-kpǒ-gùdí                    | á-kpǒ-gùdí                      |
|    | 'she has sold (it) again'     | 'they have sold (it) again'     |

(90) HIGH Verb Roots

- |    |                            |                              |
|----|----------------------------|------------------------------|
| a. | <u>-kó</u> 'to take'       |                              |
|    | à-kpǒ-kó                   | á-kpǒ-kó                     |
|    | 'she has taken (it) again' | 'they have taken (it) again' |
| b. | <u>-fág</u> 'to sweep'     |                              |
|    | à-kpǒ-fág                  | á-kpǒ-fág                    |
|    | 'she has swept (it) again' | 'they have swept (it) again' |
| c. | <u>-káné</u> 'to fry'      |                              |
|    | à-kpǒ-káné                 | á-kpǒ-káné                   |
|    | 'she has fried (it) again' | 'they have fried (it) again' |

The repetitive perfect has the various perfect senses discussed under 6.3.1, except that they have the additional feature of being iterative, of having been done again or of a state being in force again. In addition, this verb form can have a dependent function with the reading '(when) x had



done y... This is not the most common way to express temporal dependency between two situations (see (63) in 6.4.2), but it is possible as shown by the following example:

(91) à-nè      á-bá-g,                      à-nè      é-bá-g.  
 2-person 3pp:HAB-come-IMPFV 2-person 3pp:HAB-come-IMPFV.  
 'People were coming and coming.'

á-kpò-bá,                      è-kádè                      à-ám.  
 3pp:PFT-REP-come, 1pp:PFV-give 6-wine.  
When they had come, we gave (them) wine.'

### 6.5.2 Repetitive perfective

The repetitive perfective does not sub-divide into a constituent-focus and a non-constituent-focus form. Instead, there is only one form. This neutralization of this focus distinction is probably due to the fact that the repetitive is treated as having inherent focus on the iterativeness of the situation and not on any of the constituents.

The repetitive perfective is formed exactly like the perfective in terms of tone, except that the repetitive prefix is assigned the replacive tone and the verb root has its lexical tone. Compare the following forms to those in 6.3.2.1. The 3ps forms are representative of all persons in terms of tone except for 3pp.

#### (92) LOW-HIGH Verb Roots

a.	<u>-gbǒ</u>	'to fall'	
	à-kpò-gbǒ		á-kpò-gbǒ
	'he fell again'		'they fell again'

- |    |                             |                               |
|----|-----------------------------|-------------------------------|
| b. | <u>-gběg</u> 'to cut down'  |                               |
|    | à-kpô-gběg                  | á-kpô-gběg                    |
|    | 'he cut (it) down<br>again' | 'they cut (it) down<br>again' |
| c. | <u>-gùdí</u> 'to sell'      |                               |
|    | à-kpô-gùdí                  | á-kpô-gùdí                    |
|    | 'he sold (it) again'        | 'they sold (it) again'        |

(93) HIGH Verb Roots

- |    |                        |                         |
|----|------------------------|-------------------------|
| a. | <u>-kó</u> 'to take'   |                         |
|    | à-kpô-kó               | á-kpô-kó                |
|    | 'he took (it) again'   | 'they took (it) again'  |
| b. | <u>-fág</u> 'to sweep' |                         |
|    | à-kpô-fág              | á-kpô-fág               |
|    | 'he swept (it) again'  | 'they swept (it) again' |
| c. | <u>-káné</u> 'to fry'  |                         |
|    | à-kpô-káné             | á-kpô-káné              |
|    | 'he fried (it) again'  | 'they fried (it) again' |

This verb form has the various senses discussed under 6.3.2.1 in relation to the perfective form. The only difference is that with this verb form the additional feature of iterativeness, of the situation holding again, is included.

6.5.3 Repetitive imperfective

As with the repetitive perfective, the distinction between the constituent-focus and non-constituent-focus forms is neutralized in the repetitive imperfective. In addition, the repetitive prefix can only co-occur with the continuous form and not with the habitual/concomitant. This restriction is not unexpected since the habitual already has inherently the feature of iterativeness.

### 6.5.3.1 Repetitive continuous

In the repetitive continuous the repetitive prafix occurs between the continuous prafix and the verb root. The repetitive prafix has its lexical tone, and each verb root has its lexical tone. Conaider the following examplaas:

#### (94) LOW-HIGH Verb Roots

- |    |                                     |                                       |
|----|-------------------------------------|---------------------------------------|
| a. | - <u>gb</u> ǒ 'to fall'             |                                       |
|    | à-kí'kpó-gbǒ                        | á-kí'kpó-gbǒ                          |
|    | 'she is falling again'              | 'they are falling again'              |
| b. | - <u>gb</u> ěg 'to cut down'        |                                       |
|    | à-kí'kpó-gběg                       | á-kí'kpó-gběg                         |
|    | 'she is cutting (it)<br>down again' | 'they are cutting (it)<br>down again' |
| c. | - <u>g</u> ùdí 'to sell'            |                                       |
|    | à-kí'kpó-gùdí                       | á-kí'kpó-gùdí                         |
|    | 'she is selling (it)<br>again'      | 'they are selling (it)<br>again'      |

#### (95) HIGH Verb Roots

- |    |                                 |                                   |
|----|---------------------------------|-----------------------------------|
| a. | - <u>k</u> ó 'to take'          |                                   |
|    | à-kí'kpó'kó                     | á-kí'kpó'kó                       |
|    | 'she is taking (it)<br>again'   | 'they are taking (it)<br>again'   |
| b. | - <u>f</u> ág 'to aweep'        |                                   |
|    | à-kí'kpó'fág                    | á-kí'kpó'fág                      |
|    | 'she is sweeping (it)<br>again' | 'they are sweeping (it)<br>again' |
| c. | - <u>k</u> áné 'to fry'         |                                   |
|    | à-kí'kpó'káné                   | á-kí'kpó'káné                     |
|    | 'she is frying (it)<br>again'   | 'they are frying (it)<br>again'   |

The 3ps forms in (94) and (95) represent all persons in terms of tone except for 3pp.

The repetitive continuous generally has the sense of a situation which is both continuous and iterative, as the above glosses indicate. However, in some cases it is used where one might expect a hortative or perfective verb form. Consider the following examples:

- (96) a.  $\dot{N}$ -kà-kédé      b̀̀d     $\dot{N}$ -kp̀̀b̀̀-f̀̀n.      é-j̀̀m    é-t̀̀d  
 1ps-NEG-thing COMP 1ps:PFT-REP-have 5-thing 5-other  
 'I don't think that I have (again) another thing  
 $\dot{N}$ -j̀̀i     $\dot{N}$ -kí-kp̀̀s-č̀̀d  
 REL-5 1ps-CONT-REP-talk  
 to say (lit: 'which I am again saying')
- b.    é-k̀̀d            è-j̀̀m     $\dot{N}$ -j̀̀i    é-kí-kp̀̀s-dí            č̀̀án  
 5:PFT-remain 5-thing REL-5 3pp-CONT-REP-est NEG.EXIST  
 'there didn't remain a thing for them to eat'  
 (lit: 'it remained a thing which they were  
 eating again it was not')
- c.    s-f̀̀n.            à-r̀̀i     $\dot{N}$ -tí     $\dot{N}$ -mí    ð-j̀̀i-b̀̀n  
 2ps:PFT-have SP-be 3-money REL-3 2ps:PFV-go-call  
 'you only have money to go and call  
 è-s̀̀b̀̀;     $\dot{N}$ -mí    ð-kí-kp̀̀s-ǹ̀m             $\dot{N}$ -ǹ̀m    č̀̀án  
 5-court; REL-3 2ps-CONT-REP-buy 9-meat NEG.EXIST  
 the court; there is none left to buy meat (for bribe)'
- d.    è-g̀̀ù            é-sí            s̀̀è    ð-kí-kp̀̀s-yám,  
 5-evening 5:PFV-reach COMP 2ps-CONT-REP-cook  
 'the evening reached (meaning) that you should cook  
                   ð-yám            ð-yám  
                   2ps:PFV-cook 14-cooking  
 again, (so) you cook'

In each of the above examples, the use of the repetitive is understandable in the context. In (96a) the speaker has already been speaking at length and he is saying that he has

nothing more to eat, no reason to speak again. In (96b) the participants have eaten all of their food so that there is nothing more to eat, i.e. nothing to eat again. In (96c) the speaker is trying to impress on the hearer the difference between the old court system, in which bribes were paid in kind (such as meat), and the new court system, in which you spend money to call the court together so that none remains for paying bribes, i.e. one does not again spend money after calling the court together. In (96d) the speaker has been discussing Ejagham eating habits, having just finished discussing a meal earlier in the day, and now that evening has come it is time to cook again.

The curious element in these examples is the use of the continuous aspect. Instead of the continuous, one might expect the perfective in (96a), (96b) and (96c), and the hortative in (96d). The most likely sense of the continuous aspect in these examples is that of the near future (imperfective). Thus, in (96a) the speaker is saying that he "will not be speaking again". In (96b) the participants "will not be eating again" since they have already eaten all of the available food. In (96c) it is claimed that one "will no longer be buying meat" to give as a bribe in court cases. And in (96d) it is claimed that when evening comes one "will be cooking food again".

#### 6.5.3.2 The -kpóg form

As was noted above, the habitual verb form does not co-occur with the repetitive prefix. However, the language

seems to have developed a habitual form of the prefix by suffixing the repetitive prefix with the imperfective suffix for -CV roots, namely -g (see 6.3.3 for discussion of this suffix, and 9.1 for discussion of the derivation of the -kpó prefix from the verb -kpě 'to add'). In these cases, the suffixed repetitive prefix behaves like a verb root, and the main verb root follows the prefix in the form of a gerund. The tone of this form seems to differ slightly from any possibly related form: The 3ps is identical to the tone pattern of the 3pe of the constituent-focus imperfective (see 6.3.3.3) for low-high verb roots, and the 3pp is identical to the tone pattern of the 3pp of the habitual/concomitant (6.3.3.2) for high verb roots:

- (97) á-kpǒ-g 'he is again'  
 á'-kpó-g 'they are again'

The use of this form adds the feature of iterativeness to that of imperfectivity. It occurs in similar contexts to that of the constituent-focus imperfective, e.g. relative clauses, interrogative word questions, and so on. In addition, it most commonly is used in negative contexts, although (98e) shows this is not always the case, or to contexts in which a rhetorical question is used and the expected answer is negative. Consider the following examples:

- (98) a. è-jí Ñ-jí á'-kpó-g ó-nám á-ám cán  
 5-place REL-5 3pp-REP-IMPV 14-buying 6-wine NEG.  
 EXIST

'there was no place for them again to be buying wine'  
 (lit: 'the place where they were again buying wine was not')

- b.  $\dot{N}$ -nè  $\dot{N}$ -nò á-kpò-g kpè  $\dot{N}$ -čòd  
 1-person REL-1 3ps-REP-IMPFV even 9-talk  
 'there wasn't a person who could again be speaking  
ó-čòd čán  
 14-talking NEG.EXIST  
 even a word' (lit: 'the person who again even a  
 word speak was not')
- c.  $\dot{N}$ -nè  $\dot{N}$ -nò á-kpò-g ó-gùdí ó-gèm  
 1-person REL-1 3ps-REP-IMPFV 14-selling 14-market  
 'the person who is still selling at that price  
 á-bì nà é-nè  
 that-14 FOC 5-person?  
 is who?' (IMPLIED ANSWER: 'no one')
- d. á-kpò-g ó-yím jén  
 3pp-REP-IMPFV 14-doing what?  
 'what more can they be doing?' (IMPLIED ANSWER:  
 'nothing')
- e. mífá à-rì  $\dot{N}$ -nè  $\dot{N}$ -nò á-kpò-g ó-kéb  
 here SP-be 1-person REL-1 3ps-REP-IMPFV 14-watching  
 'here is the person who is still caring for  
 ém  
 3ps  
 me'

In (98a) and (98b) the situations are assigned a negative value, and in (98c) and (98d) the rhetorical questions expect a negative answer such as 'no one' or 'nothing'. But (98e) shows that it can be used in positive situations also.

#### 6.5.4 Repetitive conditional

The repetitive conditional verb form is formed on the simple conditional form (6.4.2) by placing the repetitive prefix between the subject prefix and the verb root. The

subject prefix again has high tone in all persons with a downstep feature before verb roots with high tone. Compare the following forms with those in 6.4.2.

(99) LOW-HIGH Verb Roots

- |    |                              |                               |  |
|----|------------------------------|-------------------------------|--|
| a. | <u>-gbǒ</u> 'to fall'        |                               |  |
|    | á'kpó-gbǒ                    | á'kpó-gbǒ                     |  |
|    | 'if he falls again'          | 'if they fall again'          |  |
| b. | <u>-gběg</u> 'to cut down'   |                               |  |
|    | á'kpó-gběg                   | á'kpó-gběg                    |  |
|    | 'if he cuts (it) down again' | 'if they cut (it) down again' |  |
| c. | <u>-gùdí</u> 'to sell'       |                               |  |
|    | á'kpó-gùdí                   | á'kpó-gùdí                    |  |
|    | 'if he sells (it) again'     | 'if they sell (it) again'     |  |

(100) HIGH Verb Roots

- |    |                           |                            |  |
|----|---------------------------|----------------------------|--|
| a. | <u>-kó</u> 'to take'      |                            |  |
|    | á'kpó-kó                  | á'kpó-kó                   |  |
|    | 'if he takes (it) again'  | 'if they take (it) again'  |  |
| b. | <u>-fág</u> 'to sweep'    |                            |  |
|    | á'kpó-fág                 | á'kpó-fág                  |  |
|    | 'if he sweeps (it) again' | 'if they sweep (it) again' |  |
| c. | <u>-káné</u> 'to fry'     |                            |  |
|    | á'kpó-káné                | á'kpó-káné                 |  |
|    | 'if he fries (it) again'  | 'if they fry (it) again'   |  |

As the glosses in (99) and (100) indicate, the repetitive conditional may be used to indicate a repeated condition. But this is not its most common use. Its most common use is to form a dependent temporal clause which may function as a type of echo of a preceding clause or situation (see (91) of



6.5.1 on the same use of the repetitive perfect). Consider the following examples:

- (101) a. á-bên                      ò-bên.      á-kpó-bên                      ánb,...  
 3pp:PFV-dance 5-dance. 3pp:COND-REP-dance thus,...  
 'They danced. When they had danced in this way,....
- b. ò-kò                      Ñ-ñám      ò-kág                      kǎ Ñ-tág.  
 2ps:PFV-take 9-meat 2ps:PFV-put in 9-bag.  
 'You take the meat and put (it) in the bag.
- ó-kpó-kág                      kǎ Ñ-tág, ò-kén                      Ñ-tág....  
 2pa:COND-REP-put in 9-bag, 2ps:PFV-carry 9-bag....  
 'When you put (it) in the bag, you carry the bag....

The verb which is in the repetitive conditional form and is used to form a dependent temporal clause does not have to be identical to a preceding verb. Often it is simply a verb within the same semantic field as a preceding verb, or at least it has some semantic relationship to a verb in the preceding clause.

Thus, the repetitive conditional can be used in constructions in which there is no feature of repetitiveness being indicated. This type of use seems to serve the purpose of slowing down the information flow in a discourse. For example, if a string of simple clauses is being used, the rate of information can be slowed by inserting one of these dependent temporal clauses. The sentences in (101b) provide an illustration of this, where the sequence "take...put...carry" is slowed down to "take...put...having put...carry...".

#### 6.5.5 Repetitive imperative

The repetitive imperative is formed by prefixing the verb

root with the repetitive prefix." Both the prefix and the verb roots have their underlying tones:

(102) LOW-HIGH Verb Roots

- |    |                               |                             |  |
|----|-------------------------------|-----------------------------|--|
| a. | - <u>gb</u> ǒ 'to fall'       |                             |  |
|    | kpó-gbǒ                       | kpó-gbǒ-ɛn                  |  |
|    | 'fall again!'                 | 'fall (pl)again!'           |  |
| b. | - <u>gb</u> ɛ̃g 'to cut down' |                             |  |
|    | kpó-gbɛ̃g                     | kpó-gbɛ̃g-ɛn                |  |
|    | 'cut (it) down again!'        | 'cut (pl) (it) down again!' |  |
| c. | - <u>gù</u> dí 'to sell'      |                             |  |
|    | kpó-gùdí                      | kpó-gùd(i)-ɛn               |  |
|    | 'sell (it) again!'            | 'sell (pl)(it) again!'      |  |

(103) HIGH Verb Roots

- |    |                          |                         |  |
|----|--------------------------|-------------------------|--|
| a. | - <u>kó</u> 'to take'    |                         |  |
|    | kpó'-kó                  | kpó'-kó-ɛn              |  |
|    | 'take (it) again!'       | 'take (pl)(it) again!'  |  |
| b. | - <u>fá</u> g 'to sweep' |                         |  |
|    | kpó'-fág                 | kpó'-fág-ɛn             |  |
|    | 'sweep (it) again!'      | 'sweep (pl)(it) again!' |  |
| c. | - <u>kán</u> é 'to fry'  |                         |  |
|    | kpó'-káné                | kpó'-kán(ɛ)-ɛn          |  |
|    | 'fry (it) again!'        | 'fry (pl)(it) again!'   |  |

6.5.6 Repetitive hortative

The repetitive hortative is formed with lexical tones on both the repetitive prefix and the verb roots. The prefixes for all persons but 3ps are high (see 6.3.1 on the perfect and 6.4.4 on the hortative for other cases where the 3ps is the odd man out). Consider the following forms:

(104) LOW-HIGH Verb Roots

a. -mě 'to swallow'

à-kpó-mě

'she should swallow  
again'

á-kpó-mě

'they should swallow  
again'

b. -kăg 'to put in'

à-kpó-kăg

'she should put (it)  
in again'

á-kpó-kăg

'they should put (it)  
in again'

c. -gùdí 'to sell'

à-kpó-gùdí

'she should sell (it)  
again'

á-kpó-gùdí

'they should sell (it)  
again'

(105) HIGH Verb Roots

a. -kó 'to take'

à-kpó-kó

'she should take (it)  
again'

á-kpó-kó

'they should take (it)  
again'

b. -fág 'to sweep'

à-kpó-fág

'she should sweep (it)  
again'

á-kpó-fág

'they should sweep (it)  
again'

c. -káné 'to fry'

à-kpó-káné

'she should fry (it)  
again'

á-kpó-káné

'they should fry (it)  
again'

The repetitive hortative can be used to indicate an action that should be repeated, as demonstrated by the glosses in (104) and (105). However, a use which is probably more frequent is to place such a verb form in a dependent clause, similar to the repetitive conditional in 6.5.4 and the examples in (101). The difference between using a repetitive hortative



in (107b) is clearly stating a situation which does hold, and which serves as the reason for a given result.

6.5.7 (Repetitive) dependent temporal<sup>14</sup>

The repetitive dependent temporal, from now on referred to as the 'dependent temporal', seems to have been built on what may have been an original imperfective form which was suffixless. In all persons but the 3pp, both the subject prefix and the repetitive prefix have low tone. The verb root in each case takes its lexical tone. For 3pp, the subject prefix and the repetitive prefix are high, making the 3pp of this form identical to the 3pp form of the repetitive hortative in 6.5.6. Consider the following forms:

(108) LOW-HIGH Verb Roots

- a. -mě 'to swallow'  
à-kpò-mě                      á-kpó-mě  
'he having swallowed' 'they having swallowed'
- b. -kǎg 'to put in'  
à-kpò-kǎg                      á-kpó-kǎg  
'he having put (it) in'      'they having put (it) in'
- c. -gùdí 'to sell'  
à-kpò-gùdí                      á-kpó-gùdí  
'he having sold (it)' 'they having sold (it)'

(109) HIGH Verb Roots

- a. -kó 'to take'  
à-kpò-kó                      á-kpó-kó  
'he having taken (it)'      'they having taken (it)'

- b. -fág 'to sweep'  
 à-kpò-fág                      á-kpó-fág  
 'he having swept'              'they having swept'
- c. -káné 'to fry'  
 à-kpò-káné                      á-kpó-káné  
 'he having fried  
 (it)'                              'they having fried  
 (it)'

As the glosses in (108) and (109) show, this form is primarily used to indicate a situation which is completed and generally still holds. As such, the verb form usually 'echoes' the verb of the preceding sentence, or a verb within its same semantic field, as the following example shows:

- (110) à-kád(ε)              èd ò-rân      n(a) ì-sú,              è-dí  
 3ps:PFV-give lpp 14-fufu and 19-sauce, lpp:PPV-eat  
 'She gave us fufu and sauce, and we ate (it)'  
 éńńéń. è-kpò-dí              fénè,....  
 all.              lpp:DEP-REP-eat thus,....  
 all: Having eaten in this way,....

As such, the dependent temporal has a similar function to the repetitive hortative (6.5.6) and the repetitive conditional (6.5.4). However, the repetitive hortative and conditional are not used to the extent that the dependent temporal form is for indicating dependency of one situation on another.

The dependent temporal form can also have another function. In those cases where it does not echo a previously stated situation, the dependent temporal takes on a reading of "suddenly...". In such cases, the verb is commonly a psychological/experiential verb such as -yán 'to see' or -yúg 'to hear'. Consider the following example:

- (111) à-kí-jě̀n      k(a) ẽ'-tém.    à-kpò-yúg,  
 3ps:CONT-walk in    5-bush. 3ps:DEP-REP-hear,  
 'He was walking in the bush. Suddenly he heard  
 Ñ-jòg      à-ké'-bá.  
 9-elephant 9-CONT-come.  
 (something), an elephant was coming!'

In (111) the verb -yúg 'to hear' does not echo the verb of the preceding sentence. Instead, it indicates a sudden turn in the course of events.

Finally, the dependent temporal form often occurs in a formulaic construction involving the verb -tǎ 'to talk'. The use of this formula is the most common use of the dependent temporal form, accounting for 65 of 117 dependent temporal forms found in 120 pages of text. The main verb follows the verb root -tǎ 'to talk' and is always in the hortative mood. Consider the following examples:

- (112) a. à-kpò-tǎ      sè    yè    à-bá,....  
 3ps:DEP-REP-talk COMP 3ps 3ps:HORT-come,....  
 'having come, he....'  
 b. Ñ-kpò-tǎ      Ñ-gbó'      kǎ Ñ-sí,....  
 1ps:DEP-REP-talk 1ps:HORT-fall on 9-ground,....  
 'having fallen on the ground, I....'

Such forms probably derive from a construction which use to literally mean "he again says that he came...." or "I again say that I fell on the ground....". Today, however, this form appears to be frozen and to mean nothing more than the simple dependent temporal forms in (110) and (111):

#### 6.5.8 "do again" and "having done": the semantic connection

Throughout the discussion in 6.5 it was pointed out that various repetitive verb forms, which add an iterative feature to the situation being specified, may also be used in dependent clauses to mean "having done x", most typically as an echo of the preceding verb. This use of these forms in dependent clauses was noted for the repetitive perfect (6.5.1), the repetitive conditional (6.5.4), the repetitive hortative (6.5.6) and the (repetitive) dependent temporal (6.5.7).

The semantic connection between the notion of "do x again" and "having done x" most likely lies in the fact that the repetitive prefix derives from the verb -kpě 'to add to' (see 9.1 for discussion of this). The iterative notion derived from -kpě 'to add to' is fairly transparent: "he came and then came again" involves the addition of one type of situation to the same type of situation, namely, "he came" to "he came". Thus, semantically it is not farfetched to find the development of the expression "he came and then he added to coming" for the iterative notion.

However, the derivation of a completive dependent notion from the verb -kpě 'to add to' is less transparent. Perhaps the best explanation is found at the discourse level, where a sequence of situations such as "she came...she ate...she left" could be modified by the notion of 'adding to' as follows: "she came...she ate...adding that she ate, she left". The notion of 'adding to something' comes at the discourse level



where one situation is repeated twice, the first time as new information and the second time as an 'echo' for slowing the rate at which new information is communicated. Thus, the correlation between "do again" and "having done" of the repetitive forms is not in some direct semantic link, but in their common derivation from the notion of adding units (s.g. situations) incrementally.

### 6.6 The negative

There are a number of negative forms which are marked with verbal prefixes. There are also two negative markers which are not verbal prefixes, one marking the negation of existence or presence and the other marking the negation of identification, as follows:

#### (113) Negation of existence or presence

à-gòmé		<u>čán</u>	'there are no plantains'
5-plantain	NEG:EXIST		'there are no plantains (here)'

#### (114) Negation of identification

Ñ-jòg		<u>àsíg</u>	'it is not an elephant'
9-elephant	NEG:IDENT		

The negative prefixes are basically three: ka, bo and ro (see 9.1 for the historical reasons underlying their present day forms and uses). They are like the repetitive prefix in that there is one for each aspect and mood. Unlike the repetitive prefix which had one lexical shape, the negative prefixes vary both tonally and segmentally. Besides co-occurring with all aspects and moods, the negative prefixes

also co-occur with all repetitive forms so that one may derive a 'negative-repetitive-hortative', for example.

### 6.6.1 The general negative

The perfect and the perfective are not distinguished in the negative, both of them having the same negative form. This type of negative is here termed the 'general negative'. The marker of this negative is the prefix kà- 'NEG'. This prefix is common to all the Ejagham dialects.

In the general negative, all persons have a high tone on the subject prefix. In addition, in WE<sup>15</sup> the 3pp, unlike the other persons, has a high tone on the negative prefix followed by a downstep features with high tone verb roots. Consider the following forms:

#### (115) LOW-HIGH Verb Roots

- |    |                         |                          |
|----|-------------------------|--------------------------|
| a. | <u>-gbǒ</u> 'to fall'   |                          |
|    | á-kà-gbǒ                | á-ká-gbǒ                 |
|    | 'she didn't fall'       | 'they didn't fall'       |
|    | 'she hasn't fallen'     | 'they haven't fallen'    |
| b. | <u>-kǎg</u> 'to put in' |                          |
|    | á-kà-kǎg                | á-ká-kǎg                 |
|    | 'she didn't put (it)    | 'they didn't put(it)     |
|    | in/'she hasn't put      | in/'they haven't put     |
|    | (it) in'                | (it) in'                 |
| c. | <u>-gùdí</u> 'to sell'  |                          |
|    | á-kà-gùdí               | á-ká-gùdí                |
|    | 'she didn't sell (it)'  | 'they didn't sell (it)'  |
|    | 'she hasn't sold (it)'  | 'they haven't sold (it)' |

(116) HIGH Verb Roots

a. -kó 'to take'

á-kà-kó

'she didn't take (it)'  
'she hasn't taken (it)'

á-ká-kó

'they didn't take (it)'  
'they haven't taken  
(it)'

b. -fág 'to sweep'

á-kà-fág

'she didn't sweep (it)'  
'she hasn't swept (it)'

á-ká-fág

'they didn't sweep (it)'  
'they haven't swept  
(it)'

c. -káné 'to fry'

á-kà-káné

'she didn't fry (it)'  
'she hasn't fried (it)'

á-ká-káné

'they didn't fry (it)'  
'they haven't fried (it)'

As the glosses indicate, the general negative basically serves as the negative form of the perfect and the perfective. However, it is also possible to use it as the negative conditional even though there is also a distinct form for the negative conditional. This use of the general negative probably derives from an earlier period when the distinct negative conditional form had not yet been derived. At that time the general negative would have been used as the negative form of the perfect, perfective and conditional<sup>16</sup>.

6.6.2 The negative imperfective

The negative imperfective is the verb form with the greatest variation among the Ejagham dialects. Even in WE there are various ways to form the negative imperfective, depending on the sub-dialect under consideration<sup>17</sup>. For the Eyumojok-Ndebaya sub-dialect and neighboring villages, the negative

imperfective is formed with the prefix bó' 'NEG:IMPFV'. The subject prefixse have a high tone, and for most speakers using the bó' prefix there is no distinction between 3ps and 3pp. Verb roots in this form, as in the general negative, have their lexical tone. Consider the following forms:

(117) LOW-HIGH Verb Roots

- |    |                               |                                  |
|----|-------------------------------|----------------------------------|
| a. | - <u>gbǒ</u> 'to fall'        |                                  |
|    | á-bó-gbǒ                      | á-bó-gbǒ                         |
|    | 'he isn't falling'            | 'they aren't falling'            |
| b. | - <u>kǎg</u> 'to put in'      |                                  |
|    | á-bó-kǎg                      | á-bó-kǎg                         |
|    | 'he isn't putting<br>(it) in' | 'they aren't putting<br>(it) in' |
| c. | - <u>gùdí</u> 'to sell'       |                                  |
|    | á-bó-gùdí                     | á-bó-gùdí                        |
|    | 'he isn't selling<br>(it)'    | 'they aren't selling<br>(it)'    |

(118) HIGH Verb Roots

- |    |                             |                                |
|----|-----------------------------|--------------------------------|
| a. | - <u>kó</u> 'to take'       |                                |
|    | á-bó-kó                     | á-bó-kó                        |
|    | 'he isn't taking<br>(it)'   | 'they aren't taking<br>(it)'   |
| b. | - <u>fág</u> 'to sweep'     |                                |
|    | á-bó-fág                    | á-bó-fág                       |
|    | 'he isn't sweeping<br>(it)' | 'they aren't sweeping<br>(it)' |
| c. | - <u>káné</u> 'to sell'     |                                |
|    | á-bó-káné                   | á-bó-káné                      |
|    | 'he isn't selling<br>(it)'  | 'they aren't selling<br>(it)'  |

The negative imperfective can function as an independent verb form, but it may also be modified by the modals tíg





the negative simple conditional is identical to that on the subject prsfix and verb root of the simple conditional (see 6.4.2). The verb root has its lexical tone. Consider the following forms:

(122) LOW-HIGH Verb Roots

- |    |                                |                                |
|----|--------------------------------|--------------------------------|
| a. | <u>-mě</u> 'to swallow'        |                                |
|    | á'ró-mě                        | á'ró-mě                        |
|    | 'if he doesn't swallow'        | 'if they don't swallow'        |
| b. | <u>-kǎg</u> 'to put in'        |                                |
|    | á'ró-kǎg                       | á'ró-kǎg                       |
|    | 'if he doesn't put<br>(it) in' | 'if they don't put<br>(it) in' |
| c. | <u>-gùdí</u> 'to sell'         |                                |
|    | á'ró-gùdí                      | á'ró-gùdí                      |
|    | 'if he doesn't sell<br>(it)'   | 'if they don't sell<br>(it)'   |

(123) HIGH Verb Roots

- |    |                               |                               |
|----|-------------------------------|-------------------------------|
| a. | <u>-kó</u> 'to take'          |                               |
|    | á'ró-kó                       | á'ró-kó                       |
|    | 'if he doesn't take<br>(it)'  | 'if they don't take<br>(it)'  |
| b. | <u>-fág</u> 'to sweep'        |                               |
|    | á'ró-fág                      | á'ró-fág                      |
|    | 'if he doesn't sweep<br>(it)' | 'if they don't sweep<br>(it)' |
| c. | <u>-káné</u> 'to fry'         |                               |
|    | á'ró-káné                     | á'ró-káné                     |
|    | 'if he doesn't fry<br>(it)'   | 'if they don't fry<br>(it)'   |

6.6.4.2 Negative counter-factual conditional

The tone on the subject prsfix and the negative prefix ra- in the negative counter-factual conditional is identical to

that on the subject prefix and verb root in the perfective (see 6.3.2.1). The verb roots have their lexical tone.

(124) LOW-HIGH Verb Roots

- |  |  |
|--|--|
| <p>a. -<u>mě</u> 'to swallow'<br/>à-rô-mě<br/>'if she hadn't<br/>swallowed'</p>    | <p>á-rô-mě<br/>'if they hadn't<br/>swallowed'</p>    |
| <p>b. -<u>kǎg</u> 'to put in'<br/>à-rô-kǎg<br/>'if she hadn't put<br/>(it) in'</p> | <p>á-rô-kǎg<br/>'if they hadn't put<br/>(it) in'</p> |
| <p>c. -<u>gùdí</u> 'to sell'<br/>à-rô-gùdí<br/>'if she hadn't sold<br/>(it)'</p>   | <p>á-rô-gùdí<br/>'if they hadn't sold<br/>(it)'</p>  |

(125) HIGH Verb Roots

- |  |  |
|--|--|
| <p>a. -<u>kó</u> 'to take'<br/>à-rô-kó<br/>'if she hadn't taken<br/>(it)'</p>    | <p>á-rô-kó<br/>'if they hadn't taken<br/>(it)'</p>   |
| <p>b. -<u>fág</u> 'to sweep'<br/>à-rô-fág<br/>'if she hadn't swept<br/>(it)'</p> | <p>á-rô-fág<br/>'if they hadn't swept<br/>(it)'</p>  |
| <p>c. -<u>káné</u> 'to fry'<br/>à-rô-káné<br/>'if she hadn't fried<br/>(it)'</p> | <p>á-rô-káné<br/>'if they hadn't fried<br/>(it)'</p> |

6.6.5 Negative imperative

The negative imperative is formed with a kà- prefix. The high tone verb roots have their lexical tone, with the floating high tone of the prefix merging with this lexical high. The low-high verb roots, however, become high-



downstepped high following the floating high tone of the prefix<sup>20</sup>:

(126) LOW-HIGH Verb Roots

- |    |                         |                           |
|----|-------------------------|---------------------------|
| a. | <u>-mē</u> 'to swallow' |                           |
|    | kà-mé'                  | kà-mé'-èn                 |
|    | 'don't swallow!'        | 'don't (pl) swallow!'     |
| b. | <u>-kǎg</u> 'to put in' |                           |
|    | kà-kág'                 | kà-kág'-èn                |
|    | 'don't put (it) in!'    | 'don't (pl) put (it) in!' |
| c. | <u>-gùdí</u> 'to sell'  |                           |
|    | kà-gúdí                 | kà-gúd(i)'-èn             |
|    | 'don't sell (it)!'      | 'don't (pl) sell (it)!'   |

(127) HIGH Verb Roots

- |    |                        |                          |
|----|------------------------|--------------------------|
| a. | <u>-kó</u> 'to take'   |                          |
|    | kà-kó                  | kà-kó-èn                 |
|    | 'don't take (it)!'     | 'don't (pl) take (it)!'  |
| b. | <u>-fág</u> 'to sweep' |                          |
|    | kà-fág                 | kà-fág-èn                |
|    | 'don't sweep (it)!'    | 'don't (pl) sweep (it)!' |
| c. | <u>-káné</u> 'to fry'  |                          |
|    | kà-káné                | kà-kán(é)-èn             |
|    | 'don't fry (it)!'      | 'don't (pl) fry (it)!'   |

6.6.6 Negative hortative

The negative hortative is also formed with the prefix kà-, only in this case the negative prefix has a falling tone as does the verb root, whether that root is low-high or high in its lexical form. The subject prefixes all have low tone except for 3pp which has high tone. Consider the following forms:

(128) LOW-HIGH Verb Roots

- a. -mě 'to swallow'  
à-kâ-mě                      á-kâ-mě  
'she should not swallow'                      'they should not swallow'
- b. -kăg 'to put in'  
à-kâ-kăg                      á-kâ-kăg  
'she should not put (it) in'                      'they should not put (it) in'
- c. -gùdí 'to sell'  
à-kâ-gùdí                      á-kâ-gùdí  
'she should not sell (it)'                      'they should not sell (it)'

(129) HIGH Verb Roots

- a. -kó 'to take'  
à-kâ-kô                      á-kâ-kô  
'she should not take (it)'                      'they should not take (it)'
- b. -fág 'to sweep'  
à-kâ-fâg                      á-kâ-fâg  
'she should not sweep (it)'                      'they should not sweep (it)'
- c. -káné 'to fry'  
à-kâ-kánè                      á-kâ-kánè  
'she should not fry (it)'                      'they should not fry (it)'

Besides being used as the negative of the hortative (see 6.4.4), this verbal form is also used for monitory purposes to warn someone of danger, and also to wish that some state of affairs would not reoccur, such as sickness. One might take leave of a sick person by saying ò-kâ-kpô-mènè 'don't be sick again (lit: 'you should not be sick again')!', using

the repetitive prefix.

### 6.7 Interaction of aspects, moods, repetitive and negative

As seen in 6.5 and 6.6, the repetitive and negative markers in the verbal system co-occur with the various aspects and moods. In addition, the repetitive and negative markers can co-occur with one another. The following are examples of these combinations using -CVCV roots only:

#### (130) Negative-Repetitive Verb Forms

	<u>LOW-HIGH Verb Root</u>	<u>HIGH Verb Root</u>
a.	<u>General negative repetitive</u>	
	á-kà-kpó-gùdí 'she did not sell again'	á-kà-kpó'-káné 'she did not fry again'
	á-ká'-kpó-gùdí 'they did not sell again'	á-ká'-kpó'-káné 'they did not fry again'
b.	<u>Negative repetitive imperfective</u>	
	á-bó'-kpó-gùdí 'he is not selling again'	á-bó'-kpó'-káné 'he is not frying again'
	á-bó'-kpó-gùdí 'they are not selling again'	á-bó'-kpó'-káné 'they are not frying again'
c.	<u>Repetitive cessative (=negative repetitive habitual)</u>	
	à-ró-kpó-gùdí 'she no longer sells'	à-ró-kpó'-káné 'she no longer fries'
	á-rò-kpó-gùdí 'they no longer sell'	á-rò-kpó'-káné 'they no longer fry'
d.	<u>Negative Repetitive Simple Conditional</u>	
	á'-ró'-kpó-gùdí 'if he does not sell again'	á'-ró'-kpó'-káné 'if he does not fry again'

á-ró-kpó-gùdí	á-ró-kpó-káné
'if they do not sell again'	'if they do not fry again'

e. Negative repetitive counter-factual conditional

à-ró-kpó-gùdí	à-ró-kpó-káné
'if she had not sold again'	'if she had not fried again'

á-ró-kpó-gùdí	á-ró-kpó-káné
'if they had not sold again'	'if they had not fried again'

f. Negative repetitive imperative

kà-kpó-gùdí	kà-kpó-káné
'don't sell again!'	'don't fry again!'

kà-kpó-gùd(i)-èn	kà-kpó-kán(é)-èn
'don't (pl) sell again!'	'don't (pl) fry again!'

g. Negative repetitive hortative

à-ká-kpó-gùdí	à-ká-kpó-káné
'he should not sell again'	'he should not fry again'

á-ká-kpó-gùdí	á-ká-kpó-káné
'they should not sell again'	'they should not fry again'

## 6.8 Positions of the verbal construction

From the discussion in the preceding sections it should be clear that there are three pre-verb-root positions and one post-verb-root position. The first pre-verb-root position is filled by the subject prefix (see 6.10). The second pre-verb-root position may be filled by the continuous prefix kí' or any of the negative prefixes discussed in 6.6. The third pre-verb-root position may be filled by the repetitive prefix

kpó'. The post-verb-root position may be filled by either the suffix of the constituent-focus perfective, which is a front vowel which assimilates to the height of the first root vowel (see 3.1.1.1), or the imperfective suffix -ág, which is realized on -CV roots as -g and on all other roots as -á.

#### 6.9 Nonfinite verb forms

The verb forms discussed in 6.3 through 6.7 are finite verb forms. There are in addition two nonfinite verb forms: the infinitive and the gerund<sup>21</sup>. These two forms are presented in 4.3, the infinitive being detailed in 4.3.1 and the gerund in 4.3.2. Also, the morphophonological properties of the infinitive are presented in 3.1.1.4.

#### 6.10 Person, number

Of the various syntactic functions such as subject, direct object and indirect object, only the subject is coded in the verb. For all finite verb forms except the imperative, the coding of the subject is required.

The subject is marked on the verb by means of a subject prefix. This prefix occurs in the first position within the verb (see 6.8). The following are the subject prefixes, listed both for persons and noun classes<sup>22</sup>:

(131)

Subject Prefixes

<u>Class</u>	<u>1p</u>	<u>2p</u>	<u>3p</u>
1	N-	ò-	à-
2	à-	ò- (-èn)	á-
3			N'-
5			é-
6			á-
8			í-
9			à-
14			ó-
19			í-

The tones given here are those which occur in the perfective verb form. In some other forms, those prefixes given with low tones may have high tones. The difference between first, second and third persons is only made in noun classes 1 and 2; otherwise the other classes include only third person. The prefix N- in class 1 for 1ps and in class 3 for 3p is a homorganic nasal (see 2.1.3). Class 1 is the class for singular humans and class 2 for plural humans. The 2pp may be optionally marked with a plural suffix -èn '2pp'. Classes 5 and 19 include only singular items, while classes 3, 9 and 14 may include either singular or plural items. Apart from these features of first, second and third person; singular and plural; and noun class, no other features are indicated by the subject prefix.

Generally there is no problem with discrepancies between syntactic and semantic features in the marking of the subject prefix. The subject simply agrees with the person and number of the subject, which in most cases means the noun class of

the subject. However, in folktales where animals are the participants, the animals take on the semantic features [+human], since they talk and in other ways behave like humans. In these cases, regardless of the noun class of the noun, the subject prefix will either be that of noun class 1 for singular or noun class 2 for plural.

Conflicts due to the coordination of noun phrases which belong to different persons, numbers or noun classes are not frequent. In fact, for some speakers all means are taken to avoid such conflicts. However, there is a general procedure for resolving conflicts between person or number, or both. If the first person is coordinated with any other person, then the subject prefix will be that of the first person plural. If a second person is coordinated with third person and not with first person, then the subject prefix will be that of the second person plural. If a third person is coordinated with another third person and not with a first or second person, then the subject prefix will be that of the third person plural. In such cases, it does not matter what the number of persons are which are being coordinated, since even the coordination of two singular persons requires a plural subject prefix.

For those speakers who are comfortable with the coordination of nouns from different noun classes in the subject position, the subject prefix may agree with either noun. Some speakers claim that it involves the question

of which noun is being emphasized, the subject prefix agreeing with the emphasized noun. However, this variation in agreement probably reflects more the variation between speakers as to how such coordination should be handled, since even in constructions where neither noun is supposed to be emphasized no consistent pattern among speakers has yet been found. This area clearly needs further study, but consider the following examples:

- (132) a.  $\acute{N}$ -káníńká nà  $\acute{N}$ -tí i-ímé à-tàn  
 9-watch and 3-money 3-my 9:PFT-be:lost  
 'my watch and money are lost'
- b.  $\acute{N}$ -káníńká nà  $\acute{N}$ -tí i-ímé  $\acute{N}$ -tàn  
 9-watch and 3-money 3-my 3:PFT-be:lost  
 'my watch and money are lost'

For some speakers the neutral sentence would be (132a), for others it would be (132b). For some speakers sentence (132a) would be emphasizing the 'watch', while (132b) would be emphasizing the 'money'. Now consider the further examples:

- (133) a.  $\acute{N}$ -jù àmé n(a) i-yim i-ímé à-rig  
 9-house 9:my and 8-thing 8-my 9:PFT-be:burnt  
 'my house and my things are burned'
- b.  $\acute{N}$ -jù àmé n(a) i-yim i-ímé í-rig  
 9-house 9:my and 8-thing 8-my 8:PFT-be:burnt  
 'my house and my things are burned'
- (134) a. i-yim i-ímé nà mótò àmé í-tàn  
 8-thing 8-my and 9:vehicle 9:my 8:PFT-be:lost  
 'my things and my vehicle are lost'
- b. i-yim i-ímé nà mótò àmé à-tàn  
 8-thing 8-my and 9:vehicle 9:my 9:PFT-be:lost  
 'my things and my vehicle are lost'



- (135) a. ð-sí nà Ñ-nón ó-kpò  
 14-fish and 3-bird 14:PFT-die  
 'the fish and birds are dead'
- b. ð-sí nà Ñ-nón N-kpò  
 14-fish and 3-bird 3:PFT-die  
 'the fish and birds are dead'

In (135) 'fish' is plural, as is 'birds'. In (133) and (134) the coordination involved a plural noun ('things') and a singular noun ('house' or 'vehicle'). Now in (136) both nouns are singular:

- (136) a. Ñ-jû àmé n(a) ó-čâm í N-gbè à-rig  
 9-house 9:my and 14-hall AM 9-leopard 9:PFT-be:  
 burnt  
 'my house and the Leopard Society Hall'
- b. Ñ-jû àmé n(a) ó-čâm í N-gbè ó-rig  
 9-house 9:my and 14-hall AM 9-leopard 14:PFT-be:  
 burnt  
 'my house and the Leopard Society Hall'
- c. ?Ñ-jû àmé n(a) ó-čâm í N-gbè á-rig  
 9-house 9:my and 14-hall AM 9-leopard 2:PFT-be:  
 burnt  
 'my house and the Leopard Society Hall'

(136c) which uses the class 2 (plural humans) prefix is acceptable to some speakers. A possible generalization underlying these various examples may be the following (but it requires further study): the neutral coordination of two singular nouns uses the class 2 subject prefix, of a singular and a plural noun, the subject prefix of the plural noun's noun class, and of two plural nouns, the subject prefix of either noun's noun class; if coordination involves emphasis

of one of the nouns, then the subject prefix agrees with the noun class of the emphasized noun. Clearly this generalization means that such coordination and verb agreement can involve ambiguity between a neutral reading and an emphatic reading.

The type of conflict which this coordination entails is most commonly averted by placing the second noun phrase after the verb with the preposition nà 'with'. For example:

- (137) a. è-túg                      é-béñè      n(à)    i-sé  
           5-Ogilby:duiker    5:PFV-run with 19-Maxwell:duiker  
           'the Ogilby duiker ran with the Maxwell duiker'
- b. Ñ-têm      òmé è-jên              nà      Ñ-jô    èy-é  
           1-friend 1:my 3ps:PFV-walk with 9-dog 9-his  
           'my friend traveled with his dog'

The subject prefixes listed in (131) are used in all aspects and moods, except for the imperative, which has no subject prefix. The nonfinite forms discussed in 6.9 are not marked for subject agreement.

There is no special morphology to indicate identity and non-identity between the subject of one verb and the subject of a following or preceding verb. However, if a series of verbs shares a common subject noun phrase, the noun phrase is generally deleted under identity after the first verb. But this deletion process does not extend to subject prefixes. Each verb must have a subject prefix. In addition, the language does not have any special reflexive or reciprocal verbal affixes.

There is no distinction made between different modes of body orientation, nor is there any process of incorporation of arguments, adjectives or adverbs into the verb. The only string of prefixless verb roots which occur in the language are found in the directional verb forms (see 6.11).

### 6.11 Directional verb forms

The directional verb form has the structure schematized in (138):

$$(138) \quad \text{Subject Prefix} + \left\{ \begin{array}{l} \text{'come'} \\ \text{'go'} \end{array} \right\} + \text{Verb Root}$$

The structure consists of a subject prefix, either the verb -bá 'to come' or -jí 'to go', and the verb root which provides the semantic content for the verb form. Some examples are given in (139)<sup>23</sup>.

- (139) a. à-bá-nám                      bì-yù  
           3ps:PFV-come-buy 8-yam  
           'she came and bought yams'
- b. à-jí-sfm                      è-bin  
           3ps:PFV-go-clear 5-farm  
           'he went and cleared (his) farm'

First, note that the directional verb form specifies a direction towards or away from an assumed point of orientation. In conversation the orientation is generally towards or away from the speaker, but in a narrative the orientation is relative to the central location of the narrative or the episode, usually being a village or compound of a family.

However, the location to which the directional forms relate may remain unspecified, and the addressee must assume that it is some location common to the various participants in the narrative.

Secondly, note that the glosses for the examples in (139) treat the verb form as consisting of two coordinate verbs. However, they could also be glossed with a purposive clause such as 'she came to buy yams' and 'he went to clear his farm'.

Thirdly, note that the examples in (139) are specified as being in the perfective aspect. The structure schematized in (138) occurs in three different aspects/moods: in the perfect, the perfective and the hortative. In other aspects/moods this construction involves the directional verb plus a complement clause.

#### 6.11.1 The perfect directional

The perfect directional is formed with a high tone subject prefix and low tone on all subsequent syllables, except in the 3ps. The 3ps has a low tone on the subject prefix and a high-low tone sequence on both the verb of direction and the final verb root, identical to the 3ps of the perfective directional. Consider these examples and compare them to those in 6.3.1.

#### (140) LOW-HIGH Verb Roots

a. -gbǒ 'to fall'

à-bà-gbǒ

'she has come and  
fallen'

á-bà-gbǒ

'they have come and  
fallen'





(144) LOW-HIGH Verb Roots

- a. -gbǒ 'to fall'  
à-bá-gbǒ 'he should come and fall'  
á-bá-gbǒ' 'they should come and fall'
- b. -kǎg 'to put in'  
à-bá-kǎg 'he should come and put (it) in'  
á-bá-kǎg' 'they should come and put (it) in'
- c. -gùdí 'to sell'  
à-bá-gùdí 'he should come and sell (it)'  
á-bá-gùdí' 'they should come and sell (it)'

(145) HIGH Verb Roots

- a. -kó 'to take'  
à-jí-kó 'she should go and take (it)'  
á-jí-kó' 'they should go and take (it)'
- b. -fág 'to sweep'  
à-jí-fág 'she should go and sweep (it)'  
á-jí-fág' 'they should go and sweep (it)'
- c. -káné 'to fry'  
à-jí-káné 'she should go and fry (it)'  
á-jí-káné' 'they should go and fry (it)'

For the functions of the hortative, see section 6.4.4.

6.11.4 Other directional forms

The perfect directional, perfective directional and hortative directional are the only three aspects/moods which use the schema in (138). With other aspects and moods, the formulation is more complex. In these cases, the directional verb is put into the desired aspect or mood, and then is

followed by the other verb in either the perfective or hortative directional form. Consider the following examples:

- (146) a. à-kí-jǐ      à-jǐ-sɛŋ      N-bin  
 3ps-CONT-go 3ps:PFV-go-write 9-name  
 'he was going to write his name (for the census)'
- b. à-kí-jǐ      à-jǐ'sɛŋ      N-bin  
 3ps-CONT-go 3ps:HORT-go-write 9-name  
 'he is going to write his name (for the census)'
- c. N-bó-bá      N-bá-kén      ɛ-čɔ̀ɛ  
 1ps-NEG:IMPFV-come 1ps:HORT-come-carry 5-load  
 'I am not coming to carry the load'
- d. ó-bá      ɔ̀-bá-nám      N-nám,....  
 2ps:COND-come 2ps:PFV-come-buy 9-animal,....  
 'if you come and buy meat,....'

In (146a) the verb -jǐ 'to go' is in the continuous aspect and is followed by a perfective directional. This combination gives a past continuous and is the only way to build a continuous directional. In (146b) the verb -jǐ 'to go' is again in the continuous aspect, but this time it is followed by a hortative directional. This combination gives a present continuous reading. In (146c) the negative imperfective directional is formed by first placing the directional verb -bá 'to come' in the negative imperfective and then following it with a hortative directional. Finally, in (146d) the conditional directional is formed by first placing the directional verb -bá 'to come' in the conditional mood and then following it with a perfective directional.



## Notes to chapter 6

<sup>1</sup>Some of these WE pairs have been formally neutralized in other dialects and some WE sub-dialects. For example, the WE pair -ríg 'to be burnt' and -rígí 'to burn something' is in EE simply -lég 'to be burnt, to burn something'.

<sup>2</sup>These forms are generally found throughout WE. However, there are some differences in EE and SE. In the Keaka (i.e. northern) sub-dialect of EE the following forms are used as equivalents:

- (i) a. mǎn-gbò ~ N-gbò 'I have fallen'  
b. ----- ó-gbò 'you have fallen'  
c. bà-gbò ~ à-gbò 'he has fallen'  
d. ----- é-gbò 'we have fallen'  
e. bá-gbò ~ á-gbò 'you (pl) have fallen'  
f. bá-gbò ~ á-gbò 'they have fallen'

In other words, the 1ps, 3ps, 2pp and 3pp forms have an alternate form involving a prefix with an additional mǎ or b which are not found in WE. In actual conversation, one most frequently hears speakers using the forms listed on the left in (i), especially with reference to 3ps since by using the form bà-gbò it is distinguished from the perfective à-gbò 'he fell', which is otherwise homophonous with the 3ps perfect.

The forms in (1c) also serve for class 1 and those in (1f) for class 2. The other classes have the following forms:

- (ii) a. Class 3 ----- N-gbò  
b. Class 5 bé-gbò ~ é-gbò  
c. Class 6 bá-gbò ~ á-gbò  
d. Class 8 ----- bé-gbò  
e. Class 9 bà-gbò ~ à-gbò  
f. Class 14 ----- ó-gbò  
g. Class 19 ----- bé-gbò

Classes 3, 8, 14 and 19 do not have alternative forms, classes 8 and 19 already having a bilabial consonant in their basic verbal prefix ('basic' in the sense that this prefix is used in every mood and aspect, unlike the prefixes on the left in (i) and (ii) which are used only in the perfect), while classes 3 and 14 do not have the expected mǎ or b.

In the Obang (i.e. southern) sub-dialect of EE, the situation is somewhat different. There is no alternation. Instead, the perfect must take the following set of prefixes:

(iii)	a. 1ps	mǎN-gbò	'I have fallen'
	b. 2ps	bó-gbò	'you have fallen'
	c. 3ps/Class 1	bà-gbò	'he/she has fallen'
	d. 1pp	bé-gbò	'we have fallen'
	e. 2pp	bá-gbò	'you (pl) have fallen'
	f. 3pp/Class 2	bá-gbò	'they have fallen'
	g. Class 3	móN-gbò	'it has/they have fallen'
	i. Class 5	bé-gbò	'it has fallen'
	j. Class 6	bá-gbò	'it has/they have fallen'
	k. Class 8	bé-gbò	'it has/they have fallen'
	l. Class 9	bè-gbò	'it has/they have fallen'
	m. Class 14	bó-gbò	'it has/they have fallen'
	n. (no class 19)	-----	

Besides the fact that these are the only prefixes acceptable in the perfect in the Obang sub-dialect, the following points should be noted in contrast to the Keaka sub-dialect of EE. First, 2ps, 1pp and classes 3 and 14 all have a bilabial in their prefixes. Secondly, the prefix for class 3 differs from that of 1ps both in the vowel and the tone. The rounded vowel in mó makes this part of the prefix reminiscent of the PB class 3 prefix, and the high tone is expected in contrast to classes 1 and 9 which have low tone. Thirdly, note that the Obang dialect also has a different vowel for the class 9 prefix: namely, è instead of a.

In SE, on the basis of limited data, it appears that the prefix set is similar to that in (iii), except that the simpler alternate prefixes in (i) are also permitted in the perfect.

<sup>3</sup>These forms hold generally across all dialects and sub-dialects.

<sup>4</sup>The constituent-focus perfective varies in form across the dialects and sub-dialects. The variation is in terms of tone and in terms of what controls the actual use of this verbal category.

In the south/west areas of WE it is common to have a low tone instead of the downstepped-high. Thus, à-gbò-é' 'he fell' is à-gbò-è 'he fell', and à-kó-é' 'he took (it)' is à-kó-è 'he took (it)'. These low tone forms are found in such villages as Abakpa, Otu and Abijang. In the eastern areas of WE, and in the Keaka sub-dialect of EE there is not only a tonal difference, but, but there are also in fact two different forms of this verbal category. For example, the WE form à-gbò-é' 'he fell' is in EE both à-gbò-ó and à-gbò-ó', while

the WE form à-kó-é 'he took (it)' is in EE à-kó-ó and à-kó-ó'. The first form in each pair causes a following low tone to be raised to high, while the second form in each pair leaves a following low tone unchanged. The first form in each pair is used when the focused constituent precedes the verb, while the second form is used when it does not precede the verb. This syntactic control on the actual form of the constituent-focus perfective does not occur in the other areas of WE, where only the semantics/pragmatics of focus control its occurrence. Finally, the Obang sub-dialect of EE is essentially identical to northern WE presented in (30) and (31). And in the case of SE, there is not sufficient information to comment.

<sup>5</sup>Sentences like (35) are listed as a different type than (33) because they are formally different. In addition, in constructing a sentence grammar (which ignores pragmatic functions and context), the grammar must be able to generate sentences with both types of perfective forms, even if the focus marker is not present.

<sup>6</sup>See note 4 above for variation on this feature.

<sup>7</sup>The EE sub-dialects have ké' and SE has kí' plus low tone on the high tone verb roots.

<sup>8</sup>Some dialects and sub-dialects such as EE and eastern WE have lost all traces of the velar consonant g. They only have an -á suffix in all forms.

<sup>9</sup>For example, in the Bendeghe sub-dialect of WE and in EE one finds a falling tone on the subject prefix of the 3pp.

<sup>10</sup>Note that even though one would think that the context "every day..." would elicit the habitual/concomitant form in every sub-dialect of WE, it in fact does not. For example, in areas of eastern WE the phrase "every day..." elicits instead the 'perfective' (6.3.2.1) verb form. Thus, the habitual/concomitant verb form appears to be only a concomitant verb form in this sub-dialect.

<sup>11</sup>Like the constituent-focus perfective, the constituent-focus imperfective varies across dialects and sub-dialects. Some have only one form, like the Eyumojok-Ndebaya sub-dialect of WE represented in (57) and (58). Consider the following forms from Otu of southwestern WE and Mbinda-Tabo of southern EE (i.e. Obang). These are given only with -CVC roots.

(iv) LOW-HIGH Verb Roots

a. Otu (southwestern WE)

á-kòd-à

'she loves/is loving'

á-kód-à

'they love/are loving'

b. Mbinda-Tabo (southern EE)

à-kòd'

'she loves/is loving'

á-kòd'

'they love/are loving'

(NB: the Mbinda-Tabo forms have a final floating high tone.)

(v) HIGH Verb Roots

a. Otu (southwestern WE)

á-kùn-à

'she carries/ia carrying'

á-kún-à

'they carry/are carrying'

b. Mbinda-Tabo (southern EE)

à-kwén

'she carries/is carrying'

á-kwèn'

'they carry/are carrying'

The Eyumojok-Ndebyaya forms for those in (iv) are á-kòd-á 'she loves/is loving' and á-kód-á 'they love/are loving', and for those in (v) they are á-kén-á 'she carries/is carrying' and á-kén-á 'they carry/are carrying'.

Some other dialects have two forms: namely, an A form which is used when the focused constituent precedes the verb and a B form which is used elsewhere. Consider the following examples from Agbokem of eastern WE and Mfuni of northern EE. Again, only -CVC roots are used in the examples.

(vi) LOW-HIGH Verb Roots

a. Agbokem (eastern WE)

A form:

à-kòd-á

'she loves/is loving'

á-kòd-á

'they love/are loving'

B form:

à-kòd

'she loves/is loving'

á-kòd

'they love/are loving'

b. Mfuni (northern EE)

A form:

à-kòd-á

'she loves/ia loving'

á-kód-á

'they loves/are loving'

B form:

B form:

à-kòd-á

'she loves/is loving'

â-kòd-á

'they loves/are loving'

(vii) HIGH Verb Roots

a. Agbokem (sastern WE)

A form:

à-kwén-á

'she carries/is carrying'

á-kwén-á

'they carry/are carrying'

B form:

à-kwén

'she carries/is carrying'

á-kwén

'they carry/are carrying'

b. Mfuni (northern EE)

A form:

à-kwén-á

'she carries/is carrying'

á-kwén-á

'they carry/are carrying'

B form:

à-kwén-á

'she carriss/is carrying'

á-kwén-á

'they carry/are carrying'

<sup>12</sup>For Proto-Ejagham and probably Proto-Ekoid, this particle reconstructs as \*kún. In Ejagham today one finds kén in northern WE, kún in southwestern WE and SE, and kwén in eastern WE and EE.

<sup>13</sup>The EE sub-dialects both use the cognate prefix kpé', while SE uses either the kpó' prefix or a construction involving the verb -kpé 'to add to' plus a gerund. Of course, in SE, the kpó' prefix could be considered as deriving not only historically but also synchronically from the construction involving the verb -kpé plus a gerund, with the verb root vowel é being deleted. However, for the other dialects the repetitive clearly involves a prefix. (See 9.1 for the reconstruction of this prefix.)

<sup>14</sup>This form is not found in EE. In addition, the use of the repetitive conditional and the repetitive hortative in dependent clauses is not found in EE. Instead, the repetitive perfective is typically used in the dependent clauses discussed in 6.5.4, 6.5.6 and 6.5.7.

<sup>15</sup>In EE, the general negative prefix always has low tone, thus making the 3ps and the 3pp identical in form.

<sup>16</sup>EE does not have a separate form for the negative conditional. Instead, it uses the general negative in conditional clauses.

<sup>17</sup>The northern EE (i.e. Keaka) sub-dialect has two variant forms:

(viii) a. LOW-HIGH Verb Roots

- ñ-čán-á-kòd' ~ ñ-án-á-kòd' 'I will not love'  
 ò-čán-á-kòd' ~ ò-án-á-kòd' 'you will not love'  
   čán-á-kòd' ~   án-á-kòd' 'he will not love'  
 è-čán-á-kòd' ~ è-án-á-kòd' 'we will not love'  
   čán-á-kòd' ~   án-á-kòd' 'you (pl) will not love'  
   čán-á-kòd' ~   án-á-kòd' 'they will not love'

b. HIGH Verb Roots

- ñ-čán-á<sup>!</sup>kwén ~ ñ-án-á<sup>!</sup>kwén 'I will not carry'  
 ò-čán-á<sup>!</sup>kwén ~ ò-án-á<sup>!</sup>kwén 'you will not carry'  
   čán-á<sup>!</sup>kwén ~   án-á<sup>!</sup>kwén 'he will not carry'  
                   etc.                    etc.

These forms probably derive from an earlier construction like \*ñ-čán é<sup>!</sup>kwén 'I will not carry'. In this construction, the root -čán was the 'NEGATIVE of EXISTENCE', and the prefix é- on the verb root -kwén 'to carry' was that of the gerund in EE. At some point in time, EE developed a rule which causes the second vowel in a root to completely assimilate to the first vowel in the root if the intervening consonant is a velar (g or ŋ). Evidently the gerund prefix é- was reinterpreted as part of the same root as čán, so that today, under the strength of the assimilation rule, the é has become an invariant a, as exemplified in (viii). The forms given in (viii) are also those used in various villages of eastern WE (e.g. Tabo, Mbakem, and Agbokem).

The southern EE sub-dialect (i.e. Obang) has a form of the negative imperfective which is similar to that in (viii). However, there is only one, invariant form and there is no velar nasal present:

(ix) a. LOW-HIGH Verb Roots

- ñ-čá-á-kòd' 'I will not love'  
 ò-čá-á-kòd' 'you will not love'  
   čá-á-kòd' { 'he will not love'  
                   'you (pl) will not love'  
                   'they will not love'  
 è-čá-á-kòd' 'we will not love'

b. HIGH Vsrb Roots

Ñ-čá-á'kwén	'I will not carry'
ð-čá-á'kwén	'you will not carry'
čá-á'kwén	{ 'he will not carry' 'you (pl) will not carry' 'they will not carry'
è-čá-á'kwén	'we will not carry'

In the southern vilisges of eastern WE, vilisges such as Babong and Abakps, there are also two variant forms of the negative imperfective. However, the two variants are entirely different from those in (viii) and (ix). Consider the following forms:

(x) a. LOW-HIGH Verb Roots

à-čón-ó-kòd' ~ á-kòd-ém	'he will not love'
á-čón-ó-kòd' ~ á-kòd-ém	'they will not love'

b. HIGH Verb Roots

à-čón-ó <sup>!</sup> kwén ~ á <sup>!</sup> kwén-ém	'he will not carry'
á-čón-ó <sup>!</sup> kwén ~ á <sup>!</sup> kwén-ém	'they will not carry'

In this sub-dialect, subject prefixes occur on all forms. For the first variant on the left in (x), the 3ps represents all persons in terms of tone except for 3pp which has a high tone on the prefix. In the case of the second variant in (x), all forms have the same tone pattern.

In SE, a variant similar to the second variant in (x) is used. There does not seem to be an alternative form in this dialect: á-gòdè-ám 'he will/is not selling'.

In Otu of southwestern WE and Bendeghe of northern WE, the negative imperfective prefix is mó' instead of bó' as used in the Eyumojok-Ndebaya sub-dialect. Consider the following:

(xi) a. LOW-HIGH Verb Roots

Otu (southwestern WE)

á' <sup>!</sup> mó-kòd'	á-mó-kòd'
'he will not love'	'they will not love'

Bendeghe (northern WE)

á' <sup>!</sup> mó-kòd	á-mó-kòd
'he will not love'	'they will not love'

b. HIGH Verb Roots

Otu (southwestern WE)

á' <sup>!</sup> mó-kùn	á-mó-kùn
'he will not carry'	'they will not carry'

Bendeghe (northern WE)

á'-mó'-kén	á'-mó'-kén
'he will not carry'	'they will not carry'

Finally, in some villages around Abijang in western WE, the prefix used for the negative imperfective is rógó':

(xii) a. LOW-HIGH Verb Roots

á'-rógó'-kód	á'-rógó'-kód (?)
'he will not love'	'they will not love'

b. HIGH Verb Roots

á'-rógó'-kên	á'-rógó'-kên (?)
'he will not carry'	'they will not carry'

<sup>18</sup>EE does not have this form. Instead, it uses the negative imperfective for the meaning 'x no longer does y'.

<sup>19</sup>EE does not have these forms. Instead, it uses the general negative in all negative conditional clauses.

<sup>20</sup>Bendeghe (Edmondson 1969) has a different form for plural negative: namely, there is a high tone on the negative prefix: ká'-kág-ên 'don't (pl) put (it) in!' and ká'-fág-ên 'don't (pl) sweep (it)!'

<sup>21</sup>In EE the infinitival suffix is underlyingly -é instead of -ém, and the gerund prefix is è- instead of ò-. Thus, the forms for the infinitive and gerund in EE match up to the forms in WE as follows:

(xiii) a. Infinitives

<u>WE</u>		<u>EE</u>	
è-gbò-óm	'to fall'	è-gbò-ó	'to fall'
è-kàg-ém	'to put in'	è-kàg-á	'to put in'
è-gùd(i)-úm	'to sell'	è-wùl(ε)-é	'to sell'
è-kó-óm	'to take'	è-kó-ó	'to take'
è-kón-ém	'to carry'	è-kwén-é	'to carry'
è-kán(ε)-ém	'to fry'	è-kánl(ε)-é	'to fry'

b. Gerunds

<u>WE</u>		<u>EE</u>	
ò-gbò	'falling'	è-gbò'	'falling'
ò-gùdí	'selling'	è-wùlé	'selling'
ò-kó	'taking'	è-kó	'taking'



ð-káné 'frying' è-kánlé 'frying'

<sup>22</sup>EE uses á- for 2p of class 2, and bé- for classes 8 and 19. In addition, the southern EE sub-dialect (i.e. Obang) has è- for class 9, as do some villages of eastern WE like Babong. Bandeghe of northern WE has bí- for class 8. See also note 2 above for prefixes used in the perfect in various dialects.

<sup>23</sup>In southern EE (i.e. Obang), a fuller and probably older form is used. The form requires a subject prefix on both the directional verb root and main verb root:

(xiv) a. Perfect directional

bà-zí bà-wúlè 'he has gone and sold (it)'

bà-zí bà-kánlé 'he has gone and fried (it)'

b. Perfective directional

à-z-àg à-wúlè 'she went and sold (it)'

à-z-àg à-kánlé 'she went and fried (it)'

c. Hortative directional

à-zí à-wùlé 'he should go and sell (it)'

à-zí à-kánlé 'he should go and fry (it)'

CHAPTER 7

OTHER WORD  
CLASSES

## 7.0 Other Word Classes

### 7.1 The adjective

The word class 'adjective' is not a major word class in the language. Most adjectival type notions are expressed by means of verbs. These are verbs in the full sense since they may be inflected for any aspect or mood. Consider the following list of verb roots which express typical adjectival notions, i.e. states of quality predicated of nouns.

- (1) a. -fǎn 'to be big'
- b. -čěb 'to be small'
- c. -bád 'to be white'
- d. -řǎg 'to be black'
- e. -bí 'to be red'
- f. -rǎb 'to be long'
- g. -kím 'to be short'
- h. -nǒb 'to be good'
- i. -bíb 'to be bad'

These verbs, and others like them, are used in a straightforward predicative function without any copula present. Thus, the majority of adjectival notions have a predicative form and grammatically should be considered as verbs and not adjectives.

There is also a set of verbs which can vary between being transitive and stative. If the object of the verb is marked with the preposition nà 'with', then the verb is stative. But if the object is not marked with nà 'with', then the verb is transitive. This variation is shown in (2) through (4):

- (2) a. ǝ-jǔm    á-ji    é-big            nà    wǝ  
     5-thing that-5    5:PFT-enough with 2ps  
     'that thing is sufficient/enough for you'

- b. è-jùm á-ji é-bîg wá  
 5-thing that-5 5:PFV-enough 2ps  
 'that thing suited you'
- (3) a. è-jùm á-ji é-gèbè nà wè  
 5-thing that-5 5:PFT-sweet with you  
 'that thing is pleasant to you'
- b. è-jùm á-ji é-gébé wá  
 5-thing that-5 5:PFV-sweet 2ps  
 'that thing pleased you'
- (4) a. N-nè á-ñb à-kpídì nà wè  
 1-person that-1 3ps:PFT-near with 2ps  
 'that person is close to you'
- b. N-nè á-ñb à-kpídì wá  
 1-person that-1 3ps:PFV-near 2ps  
 'that person approached you'

Besides these verbal means of expressing predicative adjectival notions, it is also possible to use a set of what are generally adverbs as adjectives in conjunction with the copula -rì 'to be'. Again, in these cases, the preposition nà 'with' is used.

- (5) a. yé à-rì kpídí-kpídí n(a) è-tég á-ji  
 3ps 3ps-be near with 5-village that-5  
 'he is close to that village'
- b. yé à-rì ékàn-ékàn nà òmè  
 3ps 3ps-be same with 1ps  
 'he is the same as me'
- c. yé à-rì égè nà wè  
 3ps 3ps-be different with 2ps  
 'she is different from you'

The adjectival notions expressed predicatively by the verbs

in (1), (2a), (3a), (4a) and the copula constructions in (5) can be expressed attributively through the use of relative clauses. Compare the following sentences:

- (6) a. Ì-tèm      òmé à-fàn  
 1-friend 1:my 3ps:PFT-bs:big  
 'my friend is big'
- b. Ì-tèm      òmé Ì-ńò      à-fàn-é'      ò-fàn  
 1-friend 1:my REL-1 3ps:PFV-be:big-C.Foc 14-big  
 'my friend who is big  
 'my big friend
- à-bá  
 3ps:PFT-come  
 has come'  
 has come'

The language makes no distinction between absolute and contingent states.

Besides the expression of adjectival notions by means of verbs, there is a small class of derived and non-derived attributive adjectives. Actually, in terms of form and agreement with nouns (only in terms of number), these forms could be considered 'adjectival nouns'. This class could be further divided into two sub-classes on the basis of form. The first sub-class consists of words with a nominal prefix, that of class 5 é-, and a root:

- (7) a. é-tǎd      'other'  
 b. é-yúb      'large, important'  
 c. é-fé      'new'  
 d. é-bí      'bad'  
 e. é-ńò      'good'  
 f. é-tèm      'old'

The first five words generally follow the noun which they modify, but the word in (7f) generally precedes the noun:

- (8) a. è-júm ' é-tǎd 'another thing'  
 b. è-tég ' é'yúb 'large village'  
 c. è-tàm ' é'-tég 'old village'

Note that the associative marker occurs between the nouns and the adjectival type words. The presence of the marker is evident in the high tone on the prefix of the second word in each phrase in (8). In each case, the prefix is lexically low, but it has been raised to high by assimilation to the high tone of the marker. Since the marker generally occurs between two nouns in association with one another, it is probably best to consider the forms in (7) as special nominal forms with the semantics of adjectives: thus the term 'adjectival nouns'.

Yet, in contrast to nouns, the forms in (7) can be used in another way. The prefix may be deleted and the bare root may occur following a relative pronoun. See 5.8.3 for more discussion of these forms. This form could be considered the predicative counterpart to the attributive forms listed in (7).

The second sub-class of adjectival nouns are derived from verb roots by prefixing the verb root with the prefix of noun class 5 é- and adding a suffix vowel. Both the prefix tone and the suffix tone are high. Segmentally, the suffix is a front vowel which assimilates to the height of the first root vowel, as described in 3.1.1.1. In the case of (9c),

where the derived form has a long vowel, the feature of length is usually lost, resulting in a form with no surface suffix. However, the long vowel can be produced as a surface form, so it is not simply an abstracted form. Consider the following derivations:

- (9) a. -bád 'to be white' --> é-bád-é 'white'  
 b. -ñǎg 'to be black' --> é-ñǎg-é 'black'  
 c. -bí 'to be red' --> é-bí-(í) 'red'  
 d. -nǎ 'to be cool' --> é-nǎ-é 'fresh'

This sub-class of adjectival nouns precedes the noun to which they are attributive. An associative marker is always present between the adjectival noun and the noun being modified. Thus, such a construction is identical to a noun-noun construction:

- (10) a. é-bád-é ' N-wéd 'white book'  
 b. é-ñǎg-é ' é-tí 'black tree'

However, unlike the first sub-class of adjectival nouns, the prefix cannot be deleted from these forms in (9) to form an adjectival root which would function in the construction discussed in 5.8.3. Instead, the predicative form of these adjectival nouns is the simple verb root, as listed on the left in (9).

#### 7.1.1 Agreement

In the case of adjectival notions expressed by verbs, the verb agrees with the subject noun phrase as discussed in 6.10. In the case of the first sub-class of adjectival nouns, the agreement process is not entirely known. There appears to

be a considerable amount of fluctuation between marking agreement by varying the prefix of the adjectival noun and requiring the use of the construction discussed in 5.8.3. In fact, in the case of certain adjectival nouns, the marking of agreement seems to be determined by (i.e. idiosyncratically associated with) the specific noun to which the adjectival noun is attributive; with one noun there is prefix variation, with another the construction in 5.8.3 is used.

In the case of the second sub-class of adjectival nouns, the agreement is only in terms of number. If the noun which it qualifies is singular, then it takes the prefix of noun class 5 ε-. But if the noun is plural, then the adjectival noun takes the prefix of noun class 6 a-. Consider these:

- (11) a. é-bád-(ε)'é-fɔ̃ 'white cloth'  
 b. a-bád-(ε)'N-fɔ̃ 'white clothes'

Note that in comparing the two sub-classes of adjectival nouns, the relative position of the noun and adjectival noun does not seem to play a role in determining agreement, nor does it matter whether the noun is overtly expressed or not.

#### 7.1.2 Comparison

The comparison of equality is expressed with the adverb èkàn-ékân 'exactly, same' and the preposition nà 'with':

- (12) àyùg à-ráb                      èkàn-ékân n(a) ɔ̃bí  
 Ayuk 3ps:PFT-be:long same              with Obi  
 'Ayuk is as tall as Obi'

The comparison of inequality is expressed with the serial construction involving the verb -číní 'to surpass':



- (13) àyùg à-fàn                      à-čínì                      ñgòb  
 Ayuk 3ps:PFT-be:fat 3ps:PFT-surpass Ngop  
 'Ayuk is bigger/fatter than Ngop'

The superlative is also expressed with the verb -číní 'to surpass' in a serial construction, only in this case the object of the verb -cíní 'to surpass' is either the non-specific 3pp pronoun ábǒ (in the case of humans) or a generic noun as in (14b) (in the case of non-humans):

- (14) a. àyùg à-nǎb                      à-čín(i)                      ábǒ  
 Ayuk 3ps:PFT-be:good 3ps:PFT-surpasses 3pp  
 'Ayuk is the most beautiful of all'
- b. è-jǐ      Ñ-jí      é-fàn                      é-čín(i)                      ǒ-góm  
 5-place this-5 5:PFT-be:big 5:PFT-surpass 14-places  
 'this place is the widest of all the various  
 é-tǎd      k(a)      á-yà      Ñ-má  
 5-other on      6-river this-6  
 places on this river'

Thus, the comparison of inequality and the superlative are expressed with identical syntactic constructions, the only difference being in the type of object chosen for the verb -číní 'to surpass'.

### 7.1.3 Degree of quality

In order to indicate a quality which is in large measure, the term kpè è-jǐ 'very much (lit: 'seven places')' is used:

- (15) yè à-fàn                      kpè è-jǐ  
 3ps 3ps:PFT-be:big even 5-places  
 'she is very fat'

In order to indicate a quality in superabundance, the verb root -čín 'to pass' is used in serial construction with

the verb root expressing the quality:

- (16) a. yê à-râb à-čín  
3ps 3ps:PFT-bs:long 3ps:PFT-pass  
'he is too tall'
- b. é-di Ñ-jí é-sèn é-čín  
5-food this-5 5:PFT-be:sweet 5:PFT-pass  
'this food is too sweet'

In order to specify a quality which is present only in small measure, the quantifier Ñ-kpád 'some' or Ñ-dúgi 'soms' is used:

- (17) è-jûm á-jí é-bíb Ñ-kpád  
5-thing that-5 5:PFT-be:bad 9-some  
'that thing is somewhat spoilt'

In order to express the absolute absence of a quality, the verb is in the negative, and the verb is modified by an adverbial phrase consisting of the adverb kpê 'even' and the infinitive of the verb root in question:

- (18) á-kà-fǎn kpê è-fàn-ém  
3ps-NEG-be:big even 5-be:fat-INF  
'he is not fat at all'  
(lit: 'he is not fat even to be fat')

## 7.2 Prepositions

Both the simple and complex prepositions have been presented in detail in terms of the syntactic and semantic functions which they mark in 4.4, 4.5 and 4.6. The simple prepositions are:

- (19) a. kǎ 'in, on, at, to, from'  
b. mbá 'to, for, from'  
c. nà 'with'

The complex prepositions are discussed in 8.5 in terms of their formal derivation.

Prepositions do not agree with the nouns they govern for any grammatical category. They do not combine with personal pronouns which they govern to form a series of personal forms, and since there are no articles in the language they cannot combine with articles to form special prepositional articles.

### 7.3 Numerals and quantifiers

#### 7.3.1 Enumeration

The numbering system is a twenty base (i.e. vigesimal) system. However, this system is no longer well learned by the younger generation due to their English schooling<sup>1</sup>. The system has eight primary numbers:

- (20)<sup>2</sup>
- |    |       |           |
|----|-------|-----------|
| a. | jé-d  | 'one'     |
| b. | é-báé | 'two'     |
| c. | é-sá  | 'three'   |
| d. | é-ní  | 'four'    |
| e. | é-rôn | 'five'    |
| f. | ó-fó  | 'ten'     |
| g. | è-kû  | 'fifteen' |
| h. | è-sám | 'twenty'  |

All other numbers in the system are derived from these eight primary forms.

The numbers six through nine are derived in the following way:

- (21)
- |    |             |                             |
|----|-------------|-----------------------------|
| a. | è-sá-g-à-sá | 'six (lit: 'three-thrae')'  |
| b. | è-ní-g-ì-sá | 'seven (lit: 'four-three')' |
| c. | è-ní-g-à-ní | 'eight (lit: 'four-four')'  |

d. é-rón é-ní 'nine (lit: 'five four'))'

There are various irregularities in the derivation of these forms and difficulties in the identification of certain morphemes, but the roots for 'three' -sá, 'four' -ni and 'five' -rôn are easily identifiable. In each case, the first number is either equivalent to or larger than the second number. In each case where the morpheme -g- occurs, the tone of the initial prefix is low rather than the high tones of numerals 'one' through 'five'. The conjunctive morpheme -g- is not identifiable with any other morpheme in the language today. It may have derived historically from the morpheme kă 'in, on, at, to, from', producing a construction something like 'three-on-three'. On the other hand, it could be a reflex of an older associative marker \*ka (cf. Welmers 1963), producing a construction something like 'three-of-three'. In any case, this conjunctive morpheme is not used in the derivation of the numeral 'nine'. Finally, the variation that occurs in both the segmental and tonal quality of the prefix of the second numeral root is not synchronically explainable. The two forms -à- and -ì- undoubtedly have an historical explanation, probably related to the morpheme -g-, but today they are simply irregularities.

The numbers 'eleven' through 'fourteen' have the form schematized in (22):

(22) TEN + nà + numeral

The morpheme nà is the comitative 'with', while the 'numeral' in (22) is limited to numerals 'one' through 'four', as follows:

- (23) a. ó-fó nà yé-d 'eleven (lit: 'tsn with one')'  
 b. ó-fó n(a) é-báé 'twelve (lit: 'ten with two')'  
 c. ó-fó n(a) é-sé 'thirteen (lit: 'ten with thrse')'  
 d. ó-fó n(a) é-ní 'fourteen (lit: 'ten with four')

The numbers 'sixteen' through 'nineteen' are derived in the same way as 'eleven' through 'fourteen', except that the initial primary number is not 'ten' but 'fifteen':

- (24) a. è-kû nà yé-d 'sixteen (lit: 'fifteen with one')'  
 b. è-kû n(a) é-báé 'seventsen (lit: 'fifteen with two')'  
 c. è-kû n(a) é-sá 'eightsen (lit: 'fifteen with three')'  
 d. è-kû n(a) é-ní 'nineteen (lit: fifteen with four)'

The numbers 'twenty-one' through 'thirty-nine' are formed along the schema in (25):

- (25) TWENTY + N-jè̃m + numeral

The noun N-jè̃m means 'back (class 9)', while the 'numeral' in (25) is any number between 'one' and 'nineteen'. Consider the following examples:

- (26) a. è-sǎm N-jè̃m yé-d 'twenty-one'  
 5-twenty 9-back 9-one  
 b. è-sǎm N-jè̃m é-rón 'twenty-five'  
 5-twenty 9-back 9-five  
 c. è-sǎm N-jè̃m é-rón é-ní 'twenty-nine'  
 5-twenty 9-back 9-five 9-four  
 d. è-sǎm N-jè̃m ó-fó 'thirty'  
 5-twenty 9-back 14-ten.  
 e. è-sǎm N-jè̃m ó-fó n(a) é-sá 'thirty-thrse'  
 5-twenty 9-back 14-ten with 9-three.

- f. è-aãm Ñ-jəm è-kû n(a) é-ni 'thirty-nine'  
 5-twenty 9-back 5-fifteen with 9-four

The number 'forty' and other multiples of twenty are derived according to the schema in (27):

(27) TWENTY + numeral

The 'numeral' in this schema may be any number between 'one' and 'nineteen'. In the schema in (27) the 'numeral' plays the role of a multiplier rather than that of an addend as in the schemas in (22) and (25). As such, this construction can be used to form the multiples of twenty from 'forty' to 'three hundred eighty'. Consider the following:

- (28) a. Ñ-sãm é-báé 'forty (i.e. 20x2)'  
 b. Ñ-sãm é-rôn 'one hundred (i.e. 20x5)'  
 c. Ñ-sãm ó-fó 'two hundred (i.e. 20x10)'  
 d. Ñ-sãm è-kû 'three hundred (i.e. 20x15)'  
 e. Ñ-sãm è-kû n(a) é-ni 'three hundred eighty  
 (i.e. 20x19)'

Note that the number for 'twenty', è-sãm, is in its plural form when it is in construction with other numerals.

The numbers between any multiple of twenty are formed according to the schema in (25), only expanded as follows:

(29) [TWENTY (+ numeral)] + Ñ-jəm + numeral

This schema would account for numbers such as the following:

- (30) a. Ñ-sãm é-báé Ñ-jəm ó-fó  
 9-twenty 9-two 9-back 14-ten  
 'fifty'  
 b. Ñ-sãm é-rôn Ñ-jəm é-rón é-ni  
 9-twenty 9-five 9-back 9-five 9-four  
 'one hundred nine'

- c. Ñ-sǎm    ʃ-fʃ    n(a)    é-báś Ñ-jəm    è-kû    nà  
 9-twenty 14-ten with 9-two 9-back 5-fifteen with  
 yá-d    'two hundred fifty six'  
 9-one
- d. Ñ-eǎm    è-kû    n(a)    é-nī    Ñ-jəm    è-kû  
 9-twenty 5-fifteen with 9-four 9-back 5-fifteen  
 n(a)    é-nī    'three hundred ninety-nine'  
 with 9-four

The number 'four hundred' is formed with the noun Ñ-təm 'friend' according to the following schema:

(31) Ñ-təm + TWENTY

The actual number is:

(32) Ñ-təm è-sǎm 'four hundred'

Note that the numeral 'twenty', è-sǎm, is in its singular form.

Theoretically, one could then count using these numbers until one reached '400x400', i.e. '160,000'. This could be done by substituting the numeral 'four hundred' in (32) for the 'TWENTY' in schema (29). In addition, the numeral used to multiply the numeral 'four hundred' would include any number from 'two' to 'four hundred'.

However, such theoretical possibilities are essentially unknown to the speakers of the language. In addition, the complex forms in (30) are understood by very few. Those which are best controlled by present speakers of the language are those in (23), (24), (26) and (28). Numerals above 400 are expressed with English numerals. In fact, 'hundreds' from '100' on, despite the familiarity of the expressions in (28b) through (28d), are generally expressed with the English

borrowing 'héndrèd', as in:

- (31) héndrèd é-báé n(a) è-sám N-jèm é-sá  
hundred 9-two with 5-twenty 9-back 9-three  
'two hundred twenty three'

### 7.3.2 Cardinal numerals as attributives

The attributive cardinal numerals 'one' through 'nine' agree with the noun class of the noun they modify as shown in 7.3.3, and the numeral 'twenty' stands as the head noun in an associative noun phrase with the noun it modifies as discussed in 7.3.4.

### 7.3.3 Cardinal numerals and class agreement

The numerals 'one' through 'nine' agree with the noun class of the noun to which they play an attributive role. The root for the numeral 'one' is -d. The prefixes for the various classes which may have a singular noun are the following:

(32) <u>Noun Class</u>	<u>Prefix to 'one'</u>
1	yó-
2	---
3	má-
5	jé-
6	má-
8	bé-
9	yá-
14	bé-
19	fá-

Some examples of these prefixes are the following:

- (33) a. N-nè yó-d 'one person'  
1-person 1-one
- b. N-díg má-d 'one rope'  
3-rope 3-one



c. N-fiam yé-d 'one animal'  
 9-animal 9-one

For the numerals 'two' through 'nine', the following prefixes are used:

(34)	<u>Noun Class</u>	<u>Prefix for 'two' through 'nine'</u>
	1	--
	2	á-
	3	N-
	5	--
	6	á-
	8	í-
	9	é-
	14	--
	19	--

Noun classes 1, 5, 14 and 19 do not have plural forms which are enumerable. In the case of classes 1, 5 and 19, this is not unexpected since these noun classes only have singular nouns. However, in the case of class 14 it is synchronically unexpected since this class serves as the plural for many nouns which have their singular form in class 9. In the case of these nouns in gender 9/14, whenever they occur in class 14 they are indefinitely plural. If they are being enumerated (i.e. definitely plural), they remain in their singular form, namely, in class 9. Historically this irregularity is explainable. Class 14 in Ejagham represents the union of class 14 and 15 of Proto-Ekoid (Watters 1980) and Proto-Bantu (Meeussen 1967:100). According to Meeussen, both class 14 and 15 served as the singular form for their appropriate gender. Furthermore, class 9 represents the union of class

9 and 10 of Proto-Ekoid (Watters 1980) and Proto-Bantu (Meauseen 1967:100). Both 9 and 10 had identical prefixes; Meauseen (1967:97) reconstructs \*n- for Proto-Bantu, and Proto-Ekoid also had \*n-, or a homorganic nasal (Watters 1980). When these two classes merged, the new class took on both the singular function of class 9 and the definite plural function of class 10. Class 14 then provided a distinct form for marking the indefinite plural of these nouns in 9-union-10 in the form of its prefix ɔ-. Thus, the gender 9/14 could be renamed in terms of Proto-Bantu and Proto-Ekoid forms as class 9/10/14: class 9 for singular forms, class 10 for definite plurals, and class 14 for indefinite plurals.

The prefixes listed in (34) as numeral prefixes are identical to the verbal subject prefixes, except for that of noun class 9. In this case, the verbal subject prefix is ɔ- rather than the ɛ- used on numerals<sup>3</sup>. Consider the following examples of these prefixes:

- |      |    |          |         |                |
|------|----|----------|---------|----------------|
| (35) | s. | à-nè     | á-báé   | 'two people'   |
|      |    | 2-person | 2-two   |                |
|      | b. | Ñ-nón    | Ñ-dón   | 'five birds'   |
|      |    | 3-bird   | 3-five  |                |
|      | c. | à-ríg    | á-sá    | 'three ropes'  |
|      |    | 6-rope   | 3-three |                |
|      | d. | bì-yù    | í-ní    | 'four yams'    |
|      |    | 8-yam    | 8-four  |                |
|      | e. | Ñ-ñàm    | é-ní    | 'four animals' |
|      |    | 9-animal | 9-four  |                |

Thus, if a specific noun is being enumerated, the numbers

'one through 'nine' must agree with the noun class of the noun. The numbers 'ten' through 'nineteen', on the other hand, do not agree with the noun class of the noun.

#### 7.3.4 Class agreement and counting in 'twenties'

Simple enumeration in 'twenties' is straightforward as shown in (28) above. However, when enumerating a specific noun in 'twenties', the following strategies are used. If the attributive numeral is between 'twenty' and 'thirty-nine', then the numeral simply follows the noun as in (36):

- (36) a. à-nè      è-săm      Ñ-jèm      á-rôn      'twenty-five  
           2-person 5-twenty 9-back 2-five      people'  
       b. bì-yù è-săm      Ñ-jèm      è-kû      'thirty-five  
           8-yam 5-twenty 9-back 5-fifteen      yams'

If the attributive is 'forty' or larger, then the plural form of 'twenty' precedes the noun and is in associative relationship with the noun. The multiplier and any addend then follow the associative noun phrase, as follows:

- (37) a. Ñ-săm      ` à-nè      á-báé      'forty people'  
           9-twenty AM 2-person 2-two  
       b. Ñ-săm      ì bì-yù      í-sá      'sixty yams'  
           9-twenty AM 8-yam      8-three  
       c. Ñ-săm      ì bì-yù      í-ní      Ñ-jèm      ó-fó  
           9-twenty AM 8-yam      8-four      9-back 14-back  
           'ninty yams (lit: '20 yams x 4 + 10')'

#### 7.3.5 Ordinal numbers

There is no full system of ordinals, but there are three derived nominals meaning 'first', 'second, following' and

'last' as follows:

- (38)<sup>4</sup> a. Ì-dàṅ-à-ṁbá 'first'  
 1-touch-NOM-road
- b. è-ṁàdédé 'second, following'  
 5-follow:in:sequence
- c. Ì-síg-à-ṁjèṁ 'last'  
 1-escort-NOM-back

As nominals, these forms stand in associative relationship with the noun they qualify. (38a) and (38c) may either follow or precede the noun, with a more emphatic reading being present if they precede. (38b) can only precede the noun.

- (39) a. Ì-mǒn ì Ì-dàṅ-à-ṁbá 'first child'  
 1-child AM 1-touch-NOM-road
- b. Ì-dàṅ-à-ṁbá Ì-mǒn 'the very first child'  
 1-touch-NOM-road AM 1-child
- (40) a. \*Ì-mǒn è-ṁàdédé 'second/subsequent child'  
 1-child AM 5-follow:in:sequence
- b. è-ṁàdédé Ì-mǒn 'second/subsequent child'  
 5-follow AM 1-child
- (41) a. Ì-mǒn ì Ì-síg-à-ṁjèṁ 'last child'  
 1-child AM 1-escort-NOM-back
- b. Ì-síg-à-ṁjèṁ ì Ì-mǒn 'the very last child'  
 1-escort-NOM-back AM 1-child

The unacceptability of (40a) means that (40b) is the only form available to express both the neutral meaning and the emphatic meaning.

In order to express ordinals other than those in (38), there are two constructions available: one involving a

relative pronoun associating the noun to the (gerundive) noun ò-súí 'filling', and the other involving a prepositional phrase with the preposition kǎ 'in, on, at, to, from':

- (42) a. Ñ-mǒn Ñ-ñò ò-súí á-sá  
 1-child REL-1 14-filling 2-three  
 'the third child (lit: 'child which (is) filling three')'
- b. Ñ-mǒn k(a) ò-súí ' á-bǒn á-rǒn à-ámé  
 1-child at 14-filling AM 2-child 2-five 2-my  
 'my fifth child (lit: 'the child at the filling of my five children')'

### 7.3.6 Other features concerning numerals

#### 7.3.6.1 Distributive

The distributive notion is expressed by repeating the numeral as follows:

- (43) a. á-kúmi ó-fó ó-fó  
 3pp:PFV-eit 14-ten 14-ten  
 'they sat ten by ten'  
 'they sat in groups of ten'
- b. kàdè ábǒ Ñ-kpímí é-báé é-báé  
 give-IMPER 3pp 9-bottle 9-two 9-two  
 'give them two bottles each'  
 'give them bottles two by two'
- c. Ñ-gúdi bì-yù ó-fó n(a) é-báé, ó-fó n(a)  
 1ps:PFV-sell 8-yam 14-ten with 9-two, 14-ten with  
é-báé 'I sold the yams twelve by twelve'  
 9-two 'I sold the yams in stacks of twelve'

Note that this distributive expression is not limited to numerals only, but may also be used with nouns as follows:

- (44) a. á-kǒ Ñ-ñám Ñ-ñám  
 3pp:PFV-take 9-animal 9-animal  
 'they each took an animal/some meat'

b. à-nè ' é-tég s-gbé Ñ-jû Ñ-jû  
 2-person AM 5-villags 3pp:PFV-build 9-house 9-house  
 'sach person in ths village built a house'

### 7.3.6.2 Fractions

Apart from the noun è-băd 'half', there are no expressions for fractions. However, there is the noun Ñ-kim 'section' which can be used to express the number of pieces an item has been cut or otherwise divided into:

(45) à-gbùd kă Ñ-kim é-sá  
 3ps:PFV-cut in 9-section 9-three  
 'he has cut (it) into three pieces (i.e. thirds)'

### 7.3.6.3 Borrowed numbers

The most commonly used borrowings from English in the number system are héndrèd 'hundred' and tósèn 'thousand'. These numbers are generally qualified with an Ejagham numeral as follows:

(46) a. héndrèd é-báé 'two hundred'  
 hundred 9-two  
 b. tósèn s-fó 'ten thousand'  
 thousand 14-ten  
 c. Ñ-săm i tósèn é-rôn 'one hundred thousand'  
 9-twenty AM thousand 9-five

These numbers are generally used when referring to money, and form (46a) is commonly used in various contexts instead of the Ejagham form Ñ-săm s-fó 'two hundred (lit: 'ten twenties')'. In fact, there is now a general tendency in favor of a ten-base system and some people are trying to devise local terms for 'hundred' (é-gòd) and 'thousand' (è-kúgá) to replace the

twenty-base numerals.

#### 7.3.6.4 Gestures with counting

The following gestures can be used in relation to enumeration:

- (47)
- a. One: the index finger of the right hand is held up;
  - b. Two: the index finger and middle finger of the right hand are held up;
  - c. Three: the first three fingers of the right hand are held up;
  - d. Four: the four fingers of the right hand are held up;
  - e. Five: i) the tips of the four fingers and the tip of the thumb, all of the right hand, held touching each other; or  
ii) a closed fist (right hand);
  - f. Six: the first three fingers of both hands are held up;
  - g. Seven: the index and middle finger of the right hand held across the palm of the left hand, or struck twice against the palm of the left hand;
  - h. Ten: the two hands cupped, and the tips of the fingers and thumb of one hand clapped twice against the tips of the fingers and thumb of the other;
  - i. Fifteen: the first gesture for 'five' (see (47e)) is used, but instead of holding the five touching finger tips in front of the chest they are tapped twice against the top of the right shoulder;
  - j. Twenty: the hand held slightly open, the index finger pointing away from the speaker, and the entire hand moved around in a clockwise circle;
  - k. Forty (or any multiple of 'twenty'): the gesture for 'twenty' (see (47j)) is made and then the appropriate gesture for the multiplier is made: thus, 'forty' includes the gesture for 'twenty' followed by the gesture for 'two'.

### 7.3.7 Quantifiers

The following simple and complex quantifiers are used:

#### (48) Simple quantifiers

- a. ètâ 'some, few (only with countable items)'
- b. ñkpád 'some, little (only with mass items)'
- c. ñdúgi 'some, little (only with mass items)'
- d. čénčén 'all, every'
- e. ètíèti 'many, most'

#### (49) Complex quantifiers

- a. kpè bàgá NOUN 'each, any, either (lit: 'even which...')'
- b. kpè NOUN...VERB<sub>NEG</sub> 'no, neither (lit: 'even... didn't')'
- c. NP -báé 'both (lit: '...two')'
- d. è-tăd/ -tăd 'other'

The quantifiers in (48a) and (48b) always precede the noun they quantify:

- (50) a. ètâ à-nè 'some people'/'a few people'  
b. ñkpád à-yéb 'some water'/'a little water'

The quantifier in (48c) is synonymous with that in (48b), but it is preferred as a pronominal rather than an attributive form. It frequently co-occurs with the adverb čínŋ, this adverb never co-occurring with any other word in the language and never independently:

- (51) kàdê            ŋm    ñdúgi    čínŋ            'give me very little'  
         give            lps    some    very

The quantifier in (48d) may either follow or precede the noun it quantifies. However, there is a more emphatic reading when it precedes the noun. Also when it precedes, it induces a tone change on a low tone noun prefix like the associative



marker or a verb with a final high tone. Compare the following:

- (52) a. à-nè čénčén 'all the people'  
 b. čénčén á-nè 'every single person'

The quantifier in (48a) always follows the noun it quantifies.

The simple quantifiers (48b) through (48e) can all be used pronominally; but they do not vary according to class agreement. Instead, the forms in (48) are invariant. The simple quantifiers (48b) through (48e) can also be used adverbially as the following examples in (53) demonstrate. In the case of the quantifiers (48d) and (48e) which follow the noun they quantify, there can be ambiguity as to whether they are to be interpreted adjectivally or adverbially:

- (53) a. à-bénè ̀̀kpád 'he ran a little'  
 3ps:PFV-run some  
 b. á-bób N-jú čénčén  
 3pp:PFV-tie:up 9-house all  
 'they tied up all the house'  
 'they completely tied up the house'  
 c. à-súm à-nè ̀̀tí̀̀tí  
 3ps:PFV-hit 2-person many  
 'she hit many people'  
 'she hit people a lot'

The complex form of (49a) may be used as follows:

- (54) a. kàdè kpè b̀̀g(a)-é-nè  
 give-IMPER even which?-5-persons?  
 'give (it) to each person/every person'  
 'give (it) to any person'  
 'give (it) to either person'

- b. kpè bàg(a)-é-júm ò-kòd-é'....  
 even which?-5-thing 2ps:PFV-love-C.Foc  
 'whatever thing you liked....'  
 'any thing you liked....'
- c. kpè bàg(a)-é-nê à-bá'é'....  
 even which?-5-person:? 3ps:PFV-come-C.Foc  
 'whoever came....'  
 'any person who came....'

The appropriate reading of (54a) depends on the context in which it is uttered. The readings of (54b) are essentially synonymous, as are those of (54c).

The complex form of (49b) requires that the sentence have a negative verb form as follows:

- (55) kpè è-júm Ñ-kà-nãm            'I didn't buy anything'  
 even 5-thing 1ps-NEG-buy            'I bought nothing'

The notion of 'neither' generally requires a parallel construction using the form of (49b) as follows:

- (56) kpè Ñ-nê,      kpè Ñ-nãm      á-kà-čín  
 even 1-person, even 9-animal 3ps-NEG-pass  
 'neither a person nor an animal passed'  
 'even a person or an animal didn't pass'

In the appropriate context, a non-parallel construction like that in (55) can also express the notion of 'neither':  
 'I bought neither thing'.

The notion of 'both' uses the numeral 'two' as follows:

- (57) a. ábò á-báé                    'both of them'  
          3pp 2-two                        'the two of them'
- b. ì-yim      á-bì      í-báé                    'both of those things'  
          8-thing that-8 8-two            'those two things'

See (7a) and (8a) of 7.1 for discussion of è-tád 'other'.

#### 7.4 The adverb

Besides nouns which may be used adverbially such as é-gé 'today' and ó-jó 'tomorrow', there is a set of lexical items which may be divided into 'particles' and 'ideophones'. These items as a general class could be considered as 'adverbs'.

An 'ideophone' is any lexical item which has a vowel or nasal consonant which may be (but is not necessarily) indefinitely lengthened, or has a form which may be (but is not necessarily) reduplicated two or three times. By contrast, a particle has a fixed form: there are no vowels or nasals which may be indefinitely lengthened and there is no variation between reduplicated and non-reduplicated forms of the same item. This distinction does not mean that there are no particles which involve reduplication. It only means that those particles which involve reduplication must always occur in that form. Consider the following examples of these two classes:

##### (58) Adverb: particles

a. èróń	'also'	f. ðiði	'uselessly'
b. fínè	'also'	g. nònò	'well'
c. jáé	'clearly'	h. kpídíkpídí	'near'
d. kpág	'quietly'	i. wágówágé	'rapidly'
e. bàbàb	'quickly'	j. m̀fám̀fá	'now'

##### (59) Adverb: ideophones

a. bèm(bèm) ~ bèm(m̀m̀)	'quietly'
b. ñkàčàg(ñkàčàg)	'sparsely'
c. tà(tà(tà))	'until, for a long time'
d. t̀èb̀è(èè)	'slowly, carefully, safely'
e. č̀ù(ùù)	'very red'



- (61) a. à-gbê            Ñ-jû      à-nâb          kpê è-jĩ  
           3ps:PFV-build 9-house 9:PFT-good even 5-place  
           'he built the house very well'
- b. \*à-gbê            Ñ-jû      nònò kpê è-jĩ  
           3ps:PFV-build 9-house well even 5-place  
           'he built the house very well'
- (62) a. à-gbê            Ñ-jû      à-wágè          kpê è-jĩ  
           3ps:PFV-build 9-house 3ps:PFV-quick even 5-place  
           'he built the house very quickly'
- b. \*à-gbê            Ñ-jû      wágówágé kpê è-jĩ  
           3ps:PFV-build 9-house quickly even 5-place  
           'he built the house very fast'
- (63) a. à-gbê            Ñ-jû      tèbèèè  
           3ps:PFV-build 9-house slowly/carefully  
           'he built the house very slowly/carefully'
- b. \*à-gbê            Ñ-jû      tèbè                  kpê è-jĩ  
           3ps:PFV-build 9-house slowly/carefully even 5-place  
           'he built the house very slowly/carefully'

In (61) and (62) the adverb which specifies the manner cannot co-occur with the adverb which specifies the large measure, namely, kpê è-jĩ 'very much'. Thus, (61b) and (62b)<sup>5</sup> are unacceptable. Instead, in these cases the adverb of manner has a related verbal form, and in order to express a manner activity in large measure the verbal form must be used with the adverb kpê è-jĩ 'very much'. This is exemplified in (61a) and (62a). In (63), however, the manner adverb tèbè(èè) 'slowly, carefully' does not have a related verbal form. Like the adverbial forms in (61b) and (62b), it cannot co-occur with the adverb of measure. Thus, (63b) is unacceptable.

However, since the adverb tèbè has a vowel which may be indefinitely lengthened to indicate large measure, this vowel is simply lengthened to give the reading of large measure (see (63a)). But even in the case of adverbs which are invariable in form and do not have a related verbal form, the adverb of large measure may not co-occur with them. Instead, whether the measure is normal or large must be interpreted from the situational context and attitude of the speaker.

In order to express 'superabundance', if a verb root is available as in (61a) and (62a), then the adverb of large measure kpè è-ji 'very much' is replaced by the verb -cín 'to pass' as exemplified in (16) of 7.1.3. If no verb root is available, then the result (or some other related situation) has to be expressed in order to indicate that the manner was in superabundance. Consider the following:

(64) à-gbè                    Ñ-jú      tèbè      à-bíbi                    è-bú  
          3ps:PFV-build 9-house slowly 3ps:PFV-spoil 5-time  
          'he build the house (too) slowly (so that) he wasted  
          time'

By indicating that the manner in which he built the house wasted time, it is implied that he built it 'too' slowly.

This same type of restriction holds for specifying 'small measure'. The form ñkpád 'some, a little' is used with verbal forms, but adverbial notions which cannot be expressed with verbs require the use of some construction to indicate the small measure. Consider the following:

- (65) à-gbè            Ì-jù      tètè,      kàn á-kà-bíbí      é' bú  
 3ps:PFV-build 9-house slowly, but 3ps-NEG-spoil 5-time  
 'he built the house slowly, but he didn't waste (any)  
 time'

Again, the small measure is only implied from the fact that contrary to the expectation when one builds slowly, one did not waste time.

## 7.5 Syntactic particles

Besides the adverbial particles discussed in 7.4, namely hna and ánò, the following syntactic particles are also used.

### 7.5.1 kán 'ABILITATIVE'<sup>6</sup>

This particle occurs clause initially and is used to indicate physical, moral or intellectual ability to perform a specific act. See (26) of 6.3.2.1.

### 7.5.2 tíg 'FUTURE'<sup>7</sup>

This modal particle occurs either just before the verb or clause initially and indicates future time. See (25) of 6.3.2.1.

### 7.5.3 mán 'so, then, thus'

This is a poorly understood particle, but it occurs in any position within the clause. It generally seems to mean something like 'so, then, thus'. For example:

- (66) a. tíg à-jì-yén            mán è-jóm....  
 FUT 2ps:PFV-go-see then 5-thing  
 'you will then go and see the thing....'
- b. mán            à-túí-'-ǒfàm            á-bà....  
 thus/then 2-elder-of-villages 3pp:PFT-come  
 'thus/then the chiefs have come....'

- c. ...mmè N-sóde wá mán  
 lps lps:HORT-tell 2ps then  
 '...I should tell you then'

#### 7.5.4 à 'QUESTION'

The particle à is used to form a polar question. It occurs clause finally:

- (67) a. ò-kí-jí é-tùm à 'are you going to work?'  
 2ps-CONT-go 5-work QUES  
 b. ò-yím è-túm nà N-tèm à  
 2ps:PFV-do 5-work with 1-friend QUES  
 'did you work with a friend?'

#### 7.5.5 àn 'RHETORICAL'<sup>8</sup>

This particle occurs at the end of dependent clauses, but is not obligatory. It is used as a rhetorical device to let the addressee know that more is to be said.

- (68) N-jí á-yúm-í à-yé b àn.....  
 REL-5 3pp:PFV-bathe-C.Foc 6-water RHET  
 'when they had bathed,....'

This particle is also used as an interrogative particle to ask something like 'what about x?' or 'how is x?':

- (69) a. bì-jí àn 'how are you?'  
 8-body RHET  
 b. é-dí àn 'what about the food?'  
 5-food RHET

#### 7.5.6 kèn 'but, then'<sup>9</sup>

The particle kèn 'but, then' is used to express both sequence in action and a conversative notion:

- (70) a. ò-yùm ó-čè, kèn N-káé sè.....  
 14-dry:season 14:PFT-dawn, then 1-wife that  
 'dry season had come, then (his) wife (said) that....'



- b.  $\acute{\epsilon}$ -kí'-yám    N-dùm    kàn á-kà-sádé    yé  
 5-CONT-cook 1-husband but 3ps-NEG-say 3ps  
 'it made her husband angry but he didn't tell her'

This particle is also used as a complementizer with verbs such as -yúní 'to be difficult' and -yím 'to do/to make be the case (see (34) in 5.6.6)'. Consider the following example:

- (71)  $\acute{\epsilon}$ -kí'-yúní            kàn. ò-túb                    N-jòg  
 5-CONT-difficult that 2ps:HORT-shoot 9-elephant  
 'it is difficult for you to shoot an elephant'

#### 7.5.7 Complementizers

Other than the complementizer kàn (7.5.6), which is used in restricted contexts, the primary complementizers are bàd, sè, and sé. The form bàd is used if the subject of the complement-taking verb is 1ps, the form sè if the subject is 2ps or 3ps, and the form sé if the subject is plural.

- (72) a. N-sédè            bàd....  
 1ps:PFV-say COMP  
 'I said that....'  
 b. à-sédè            sè....  
 3ps:PFV-say COMP  
 'she said that....'  
 c. á-sédè            sé....  
 3pp:PFV-say COMP  
 'they said that....'

#### 7.5.8 nâ 'FOCUS MARKER'

If the noun phrase in focus occurs before the verb, then the focus marker nâ follows the noun phrase. If the noun phrase occurs after the verb, then the focus marker nâ is

not used<sup>10</sup>. Instead, the copula à-ri can be used post-verbally. The focus marker nâ is basically used to focus noun phrases, and it is never used to focus a verb or verb phrase. Consider the following:

- (73) a. nâ N-ràm-é' N-búi  
 1ps FOC 1ps:PFV-buy-C.Foc 9-goat  
 'it was I who bought the goat'
- b. kpè à-biŋ-í' à-ri N-tèm,....  
 even 3ps:PFV-call-C.Foc SP-be 1-friend  
 'whether he calls a friend, or....'  
 'whether he calls only a friend, or....'

## Notes to chapter 7

<sup>1</sup>Due to their schooling in English, the younger generation is using English numerals more and more in place of the Ejagham forms.

<sup>2</sup>EE has the following differences: é-bé 'two', é-ló 'five', and bó-fó 'ten'. The form bó-fó 'ten' is also found in SE and in the Bandeghe area of northern WE, and it probably represents the Proto-Ejagham form.

<sup>3</sup>However, note that southern EE (i.e. Obang) and part of eastern WE (e.g. Babong) have ɛ- instead of a- as the verbal prefix for class 9.

<sup>4</sup>EE has the following form for 'last': Ñ-čùg-à-ndéb (lit: 'the one biting off the bottom').

<sup>5</sup>Some speakers would accept (61b) and (62b).

<sup>6</sup>Southwestern WE has kún as does SE. EE and eastern WE have kwán. The proto-Ejagham form was probably \*kún.

<sup>7</sup>EE has tég along with the form čòh. This second form is the imperative for the verb -jì 'to go', and it is used when there is a greater degree of certainty that the situation will hold in the future. The form tég probably derives from the proto-Bantu \*tíg 'to leave' used in certain syntactic constructions (see Meeussen (1967.119)).

<sup>8</sup>EE does not have this form. It simply uses the question particle à.

<sup>9</sup>EE has kè and some areas of WE have kèn.

<sup>10</sup>Most speakers do not accept nâ after the verb in isolated sentences. However, one example has been found in text material of a post-verbal nâ. In this case it preceded the NP rather than following it. This indicates that for at least the speaker of the text nâ undergoes verb-attraction, moving to the side of the NP which is closest to the verb.

CHAPTER 8

DERIVATIONAL  
MORPHOLOGY

## 8.0 Derivational Morphology

### 8.1 The derivation of nouns

#### 8.1.1 Nouns from nouns

Some nouns which are in gender 14 are derived from gandar 1/2. The formal process involves the substitution of the noun class 14 prefix for the prefixes of noun classes 1 and 2. The resultant noun no longer refers to a person, but to the quality which characterizes that person. This derivational process is fairly productive. Consider the following examples:

- |        |                        |     |                                   |
|--------|------------------------|-----|-----------------------------------|
| (1) a. | Ñ-tèm/à-tèm            | --> | ò-tèm                             |
|        | 'friend'               |     | 'friendship'                      |
| b.     | Ñ-něn/à-něn            | --> | ò-něn                             |
|        | 'mother'               |     | 'motherhood'                      |
| c.     | Ñ-jê/à-jê              | --> | ò-jê                              |
|        | 'witch'                |     | 'witchcraft'                      |
| d.     | Ñ-jàn/à-jàn            | --> | ò-jàn                             |
|        | 'lazy person'          |     | 'lazinesa'                        |
| e.     | Ñ-bôd/à-bôd            | --> | ò-bôd                             |
|        | 'intimate friend'      |     | 'intimate friendship'             |
| f.     | Ñ-sún/à-sún            | --> | ò-sún                             |
|        | 'slave'                |     | 'slavery'                         |
| g.     | Ñ-čí/à-čí              | --> | ò-čí                              |
|        | 'deaf and dumb person' |     | 'deaf-and-dumbness'               |
| h.     | Ñ-kpàg/à-kpàg          | --> | ò-kpàg                            |
|        | 'poor person'          |     | 'poverty'                         |
| i.     | Ñ-túi/à-túi            | --> | ò-túi                             |
|        | 'elder, ruler'         |     | 'kingdom, sphere of<br>influence' |

j.	Ñ-nàd/à-nàd 'in-law'	-->	ò-nàd 'in-lawahip'
k.	Ñ-kúí/à-kúí 'old person'	-->	ò-kúí 'old-age'
l.	Ñ-gùm/à-gùm 'barren person'	-->	ò-gùm 'barrenness'
m.	Ñ-mǎnčè/à-bǎnčè 'child'	-->	ò-bǎnčè 'childhood'

This derivation process does not apply in the case of certain lexical items. For example, Ñ-nè/à-nè 'person' does not have a related form \*ò-nè 'personhood'.

#### 8.1.2 Nouns from verbs

In order to derive a noun from a verb, the verb root is prefixed with a noun class prefix. The tone of the prefix is generally low, while the tone on the deverbal root depends on which tone class it belongs to as a verb. Thus, verb roots in the tone class -LH have either a low tone over the entire deverbal root, or a low-high tone sequence which is realized as a rising tone on monosyllabic roots:

(2) a.	-kǎm 'to answer, agree'	-->	è-kǎm 'crowd'
b.	-kùmí 'to sit down'	-->	è-kùmí 'meeting, chair'
c.	-kǒd 'to love, like'	-->	è-kǒd 'desire, liking'
d.	-mǎnǎé 'to be sick'	-->	è-mǎnǎé 'sickness'

Verb roots in the tone class -H have either a high tone over the entire deverbal root, or a high-low tone sequence which



- c. Material result of an activity
- |            |     |                    |
|------------|-----|--------------------|
| -bám       | --> | è-bám/bì-bám (5/8) |
| 'to close' |     | 'fence'            |
| -bùí       | --> | è-bùì/à-bùì (5/6)  |
| 'to cover' |     | 'roof'             |
- d. Social result of an activity (or state)<sup>1</sup>
- |                    |     |                      |
|--------------------|-----|----------------------|
| -kám               | --> | è-kám/bì-kám (5/8)   |
| 'to answer, agree' |     | 'crowd'              |
| -kùmí              | --> | è-kùmì/bì-kùmì (5/8) |
| 'to sit down'      |     | 'mesting, chair'     |
| -kũn               | --> | è-kũn/Ñ-kũn (5/9)    |
| 'to be seated'     |     | 'adultery'           |
- e. The activity itself
- |               |     |                      |
|---------------|-----|----------------------|
| -bén          | --> | è-bèn/Ñ-bèn (5/9)    |
| 'to dance'    |     | 'dance, dancing'     |
| -kón          | --> | è-kôn/Ñ-kôn (5/9)    |
| 'to sing'     |     | 'song, singing'      |
| -kùbí         | --> | è-kùbì/bì-kùbì (5/8) |
| 'to converse' |     | 'conversation'       |
- f. The quality or state associated with the activity
- |                 |     |                 |
|-----------------|-----|-----------------|
| -jǒg            | --> | è-jòg (5)       |
| 'to make noise' |     | 'noise'         |
| -kǒd            | --> | ò-kǒd (14)      |
| 'to love, like' |     | 'love'          |
| -ridí           | --> | è-ridì (5)      |
| 'to deceive'    |     | 'deceitfulness' |
- g. Source of a state
- |                                |     |             |
|--------------------------------|-----|-------------|
| -bád                           | --> | è-bád (5)   |
| 'to be white, bright'          |     | 'light'     |
| -fàdé                          | --> | è-fàdè (5)  |
| 'to go from place<br>to place' |     | 'dizziness' |



h. Instrument and/or location

-bùí	-->	Ñ-bùí/è-bùí (9/14)
'to cover'		'lid'
-nǔn	-->	è-nùn/bì-nùn (5/8)
'to be lying down'		'bed'

In some cases it is not clear what semantic association is involved, and in others more than one association process may be involved.

The genders to which verb roots may be assigned can be characterized as follows:

- (5) a. Gender 5/6: material item  
è-bùí 'roof' < -bùí 'to cover'
- b. Gender 5/8: material result  
è-bín 'law' < -bín 'to decree'
- material object  
è-bám 'fence' < -bám 'to close'
- social result  
è-kám 'crowd' < -kám 'to answer'
- activity  
è-jú 'theft' < -jú 'to steal'
- c. Gender 5/9: material result  
è-kím 'section' < -kím 'to cut'
- social result  
è-kún 'adultery' < -kún 'to be seated'
- activity  
è-kón 'song' < -kón 'to sing'
- d. Gender 9/6: material result  
Ñ-dáb 'branch' < -ráb 'to be long'
- social result  
Ñ-jòm 'magic' < -jòm 'to make magic'

- activity  
 Ñ-čǝd 'discussion' < -čǝd 'to talk'
- e. Gender 9/14: instrument  
 Ñ-bùí 'lid' < -bùí 'to cover'
- social result  
 Ñ-kím 'circumcision' < -kím 'to cut'
- f. Gender 14/6: instrument  
 ð-fág 'broom' < -fág 'to sweep'
- material result  
 ð-sêŋ 'letter, book' < -sêŋ 'to write'
- material object  
 ð-kém 'prone oil palm' < -kém 'to tap  
 palm wine'
- g. Gender 5: source  
 è-bád 'light' < -bád 'to be white'
- activity  
 è-gòmè 'snoring' < -gòmé 'to snore'
- state/quality  
 è-füb 'fear' < -füb 'to fear'
- h. Gender 6: material result  
 à-féǵè 'urine' < -féǵé 'to urinate'
- activity  
 à-gòdè 'pleading' < -gòdé 'to pray'
- i. Gender 9: object  
 Ñ-gòm 'fine' < -gòm 'to fine'
- activity  
 Ñ-fìbl 'whistling' < -fìbí 'to whistle'
- j. Gender 14: activity  
 ð-kóè 'coughing' < -kóé 'to cough'
- state  
 ð-kěd 'tiredness' < -kěd 'to be tired'

For more examples of deverbal forms in their appropriate gender, see section 4.8.2.

### 8.1.3 Nouns from verb phrases

Probably the most productive derivational process involves deriving nouns from verb phrases. Knappert (1965) in his study of compounding in Bantu languages included this form of derivation within his study. He found this process in most of the Bantu languages included in his study, and it was one of the more productive processes throughout the Bantu area.

The process involves a verb root and a complement noun. The noun is generally the syntactic object in the verb phrase, but in some cases it might be interpreted as the syntactic subject. This latter case is infrequent. The verb root is prefixed with a noun class prefix from classes 1, 2, 5, 6, 9 or 14. It is assigned to one of the following genders: 1/2, 5/6, 9/6, 5, 6, 9 and 14. In addition, the verb root is suffixed with an -a, which may be a relic of an earlier form of the associative marker. The tone on the prefix is generally low, the tone on the verb root is low for low-high verb roots and high for high tone verb roots, and the tone of the suffix is usually low when the prefix is that of noun class 1, 5 or 9, but high if the prefix is that of noun class 2, 6 or 14.

The following semantic correlations with noun classes are present:

- (6) a. Class 1: singular humans
- b. Class 2: plural humans

- c. Class 5: singular inanimate
- d. Class 6: plural inanimates and animate items
- e. Class 9: plant life, some inanimate items
- f. Class 14: abstracts

More generally, this derivational process is commonly, but not absolutely, used for occupations, abstracts and items introduced from industrialized society. In the case of introduced items, many people use the English borrowing, but individuals or small groups of people who try to form an Ejagham equivalent for the given item often use this derivational process to produce the Ejagham term. Consider the following examples:

(7) Gender 1/2

- |    |             |         |                       |
|----|-------------|---------|-----------------------|
| a. | Ñ-kpàn-(à)  | è-bĩn   | 'farmer'              |
|    | 1-hoe-NOM   | 5-farm  |                       |
|    | à-kpàn-á    | ń-bĩn   | 'farmers'             |
|    | 2-hoe-NOM   | 9-farm  |                       |
| b. | Ñ-tán-(à)   | à-mêd   | 'blind person'        |
|    | 1-loose-NOM | 6-eye   |                       |
|    | à-tán-(á)   | á-mèd   | 'blind people'        |
|    | 2-loose-NOM | 6-eye   |                       |
| c. | Ñ-kàg-(à)   | ò-bê    | 'supporter, helper'   |
|    | 1-put-NOM   | 14-hand |                       |
|    | à-kàg-(á)   | á-bò    | 'supporters, helpers' |
|    | 2-put-NOM   | 6-hand  |                       |
| d. | Ñ-jàm-(à)   | é-fê    | 'tailor'              |
|    | 1-sew-NOM   | 5-cloth |                       |
|    | à-jàm-á     | ń-fê    | 'tailors'             |
|    | 2-sew-NOM   | 9-cloth |                       |

(8) Gender 5/6

- a. è-tòŋ-(à) ð-fòŋ 'cattle egret'  
5-follow-NOM 14-cattle  
à-tòŋ-(á) ó-fòŋ 'cattle egrets'  
6-follow-NOM 14-cattle
- b. è-fàn-à Ñ-fín 'calendar'  
5-count-NOM 9-day  
à-fàn-á N'-fín 'calendars'  
6-count-NOM 9-day
- c. è-čòd-à Ñ-čòd 'radio'  
5-talk-NOM 9-diacussion  
à-čòd-á N'-čòd 'radios'  
6-talk-NOM 9-discussion
- d. è-fón-à bì-jì 'towel'  
5-wipe-NOM 8-body  
à-fón-á bí-jì 'towels'  
6-wipe-NOM 8-body

(9) Gender 9/6

- a. Ñ-kém-(à) ð-rùn 'green mamba'  
9-bypass-NOM 14-mangrove:tree  
à-kém-(á) ó-rùn 'green mambas'  
6-bypass-NOM 14-mangrove:tree
- b. Ñ-fhàg-(à) à-gún 'millipede'  
9-black-NOM 6-blood  
à-fhàg-(á) á-gún 'millipedes'  
6-black-NOM 6-blood

(10) Gender 6

- à-nìg-á N'-fiàm 'convulsion'  
6-jerk-NOM 9-animal

(11) Gender 9

- a. Ñ-bèd-(à) è-gòmé 'soft, pliable core of  
9-wet-NOM 5-plantain plantain stock'

- b. Ñ-fág-(à)      è-yá      'type of plant'  
           9-sweep-NOM 5-year
- c. Ñ-gèb-(à)      ò-ǎú      'type of bitter leaf'  
           9-sweat-NOM 14-bitter:leaf

(12) Gender 14: in this gender only three nouns have been found to co-occur with the verb: bi-ji 'body', è-ji 'body' and Ñ-béñé 'heart'.

- a. ò-ǎm-á      bí-ji      'unity, association'  
           14-join-NOM 8-body
- b. ò-kpóg-à<sup>2</sup>      bi-ji      'surprise, fright'  
           14-die-NOM 8-body
- c. ò-sòn-á      bí-ji      'good health'  
           14-strong-NOM 8-body
- d. ò-nòb-(á)      é-ji      'kindness'  
           14-good-NOM 5-place
- e. ò-fúb-á      Ñ-béñé      'anger, temper'  
           14-heat-NOM 9-heart
- f. ò-gèb-á      Ñ-béñé      'happiness, joy'  
           14-sweet-NOM 9-heart
- g. ò-nà(g)-á<sup>3</sup>      Ñ-béñé      'meekness, calmness'  
           14-cool-NOM 9-heart
- h. ò-yám-á      Ñ-béñé      'annoyance, vexation'  
           14-cook-NOM 9-heart
- i. ò-yúb-á      Ñ-béñé      'unresponsiveness,  
           14-heavy-NOM 9-heart      sluggishness'

In the case of many of these derived forms in gender 14, the prefix could be changed from that of noun class 14 to that of class 1 or 2, in which case the abstract quality or state specified by the derived noun in 14 would be attached to a person. Thus, (12f) could become a 'happy person',

(12i) a 'sluggish person', and so on. This relationship between gender 14 and gender 1/2 is similar to that discussed in 8.1.1, but in this case the form in gender 14 is the basic one whereas in 8.1.1 the form in gender 1/2 is the basic one. The notion 'basic' here means that the form in question is used more frequently and is the form given when a speaker of the language lists dephrasal nouns. A speaker will list (12f) in gender 14 before he or she will suggest the analogous forms in gender 1/2.

Finally, note that these dephrasal nouns may derive from more than just a verb or a noun. They may include more than one verbal complement. However, this process is not very productive, and many speakers will not accept it at all. But consider the following example which is acceptable for some speakers:

(13) ò-kàd-á      á-nè      é-dí      òb-á      'your giving of  
           14-give-NOM 2-person 5-food 14-your      people food'

This is derived from a sentence like (14):

(14) ò-kàd-á                      á-nè      é-dí      'you (habitually)  
           2ps:HAB-give-IMPV 2-person 5-food      give people food'

## 8.2 The derivation of verbs

The most productive derivation of verbal notions involves the construction of verbal expressions which consist of a verb and a specific complement. Consider the following examples:

- (15) a. -bíbí N'-tí 'to spend (lit: 'to spoil money')'  
 b. -dí N'-tí 'to smbezzle (lit: 'to eat money')'  
 c. -dí á-rém 'to ows (lit: 'to eat debt')'  
 d. -dí ó-tèm 'to befrisnd (lit: 'to eat friend-ship')'  
 e. -kǎg k(a) ǒ-tùì 'to invest with authority (lit: 'to put in kingdom')'  
 f. -kǎg k(a) ǒ-kpàg 'to impoverish (lit: 'to put in poverty')'  
 g. -kpó bí-jì 'to be surprised (lit: 'to die body')

A less productive process for deriving verbs involves the suffixing of -CVC roots with a front vowel which assimilates to the height of the first root vowel (see 3.1.1.1). This process is probably a reduced version of what was a more general process in the past involving -CV, -CVC, -CVV and -CVCV roots. This suffixation process changes stative verbs into transitive verbs, intransitive verbs into transitive ones, and transitive verbs into causative ones. However, the underlying semantics of the suffix can be generalized as 'causative'. Consider the following examples:

- (16) a. -bán 'to dry x' -báné 'to stick x to y'  
 ('to cause x to dry to y')  
 b. -béd 'to hide, be hidden' -bédé 'to hide x'  
 ('to cause x to be hidden')  
 c. -bíb 'to be spoiled, bad' -bíbí 'to spoil x'  
 ('to cause x to be spoiled')  
 d. -čág 'to be torn' -čágé 'to tear x'  
 ('to cause x to be torn')



e.	-čěm 'to join with <u>x</u> '	-čěmé 'to join together' ( 'to cause <u>x</u> to join with <u>y</u> ' )
f.	-fúb 'to be(come) hot'	-fúbí 'to heat <u>x</u> ' ( 'to cause <u>x</u> to be(come) hot' )
g.	-gím 'to be standing'	-gímí 'to stand up' ( 'to cause oneself to stand up' )
h.	-nũn 'to be lying down'	-nũní 'to lie down' ( 'to cause oneself to be lying down' )
i.	-ríg 'to be burnt'	-rígí 'to burn <u>x</u> ' ( 'to cause <u>x</u> to be burnt' )
j.	-tán 'to be lost, extinguished'	-táné 'to lose <u>x</u> , extinguish <u>x</u> ' ( 'to cause <u>x</u> to be lost, extinguished' )
k.	-yáb 'to suck <u>x</u> '	-yábé 'to give suck' ( 'to cause <u>x</u> (=child) to suck' )

Besides the examples in (16), there are a few other pairings which demonstrate such a 'causative' relationship. However, the causative meaning is productive only for these few cases of -CVC --> -CVCV roots. Most cases of -CVC --> -CVCV roots no longer have this casuative relationship, even though a plausible, earlier causative relationship is reconstructable. Synchronically, the -CVCV roots have taken



its productivity. This reduction is seen in two places. First, the suffix is affixed only to -CVC roots. If it was generally productive one would expect it to be affixed also to -CV, -CVV and -CVCV roots. Of course, it would be affixed vacuously in the case of -CVV and -CVCV roots in that the root would not change in shape, but the presence of the suffix should cause a change in meaning. It is this change in meaning which is no longer found in the present day language. Then in the case of -CV roots one would expect a set of derived -CVV roots which semantically are related to the -CV roots, but both the application of the suffix and the change in meaning are absent in the case of -CV roots.

Secondly, the reduction in the productivity of this suffix is seen in the fact that other dialects have begun to merge some of the forms given in (16). For example, in EE the pairing in (16i) has been reduced to a single form -lég which means both 'to be burnt' and 'to burn x'. There is no form \*-légé 'to burn x' as expected. Thus, it is concluded that the few pairings like those in (16) are relics of what was once a general, productive process for deriving causatives.

### 8.3 The derivation of adjectives

#### 8.3.1 Adjectives from nouns

There is a reduplication process by which a small class of adjectives are derived from nouns. The semantics involved derives an adjectival notion which is descriptive of a situation or place which has an abundance of the item referred

to by the noun. Consider the following examples:

- (18) a. ò-tòb                      --> ò-tòb ó-tòb  
           'mud'                        '(very) muddy'
- b. à-táé                      --> à-tá(é) á-táè  
           'rocks'                      '(very) rocky'
- c. è-běm                      --> è-běm é-běm  
           'dust'                        '(very) dusty'
- d. à-yé'b                     --> à-yé'b á-yé'b  
           'water'                      '(very) wet, watery'
- e. é-sébè                     --> é-séb(è) é-sébè  
           'sand'                        '(very) sandy'

There are also certain forms which are semantically idiosyncratic:

- (19) a. Ì-bá                        --> Ì-bá Í-bá  
           'road'                        'plain, open, cleared road'
- b. è-kàn                      --> è-kàn é-kàn  
           'age group'                    'exactly, the same'

Note that the reduplicated forms could be considered adjectival compounds since they are characterized by a distinctive tone pattern. In the reduplication, the first noun retains its basic tone while the second noun always has the tone sequence high-high-low, whether the second noun is disyllabic or trisyllabic. These derived adjectives or adjectival compounds are generally used with the copula.

### 8.3.2 Adjectives from infinitives

As discussed in section 5.8.3, adjective stems may be derived from infinitives by deleting the noun class 5 prefix. The semantic relationship involves the verbal notion.

and items which are designated to undergo the process specified by the verbal notion. In other words, it has a 'purposive' relationship to the item it modifies. Consider the following examples:

- (20) a. è-gùd-úm                    --> gùd-úm  
           'to sell'                        'for sale'
- b. è-séṅ-ém                   --> séṅ-ém  
           'to write'                       'for writing'
- c. è-yim-ém                   --> yim-ém  
           'to do'                           'for doing'
- d. è-dí-ím                     --> dí-ím  
           'to eat'                         'for eating'

See the examples in (55) in section 5.8.3 for such adjectives in sentential context.

### 8.3.3 Adjectives from adjectival nouns

As discussed in 5.8.3, adjectival roots may be derived from adjectival nouns by deleting the nominal prefix. The semantic process involved is that the new form is unambiguously adjectival in its meaning rather than nominal-adjectival.

Consider the following examples:

- (21) a. è-tǎd                        --> tǎd  
           'another one'                    'other, different'
- b. è-fé                         --> fé  
           'new one'                        'new'
- c. è-nò                         --> nò  
           'good one'                        'good'
- d. è-bí                         --> bí  
           'bad one'                         'bad'

See the examples in (55) in section 5.8.3 where such forms

are used in context.

#### 8.4 The derivation of adverbs

There is no general process for deriving adverbs, but it is clear that various present-day adverbs have been derived historically from simpler forms. For example, some adverbs have been derived by a general process of reduplication from verb roots. Consider the following forms:

- (22) a. -wágé                      --> wágówágé  
      'to be quick, fast'        'quickly, fast'
- b. -kpídí                     --> kpídíkpídí  
      'to near something'        'near, close by'
- c. -kpèdé                     --> kpèdékpèdé  
      'to clear up'                'clearly, with my own  
                                      eyes'
- d. -ñáné                     --> ñánéñáné  
      'to scatter'                 'separately'
- e. -gbágé                    --> gbágégbágé  
      'to make flat'                'flat'

Forms (22b) through (22d) involve simple reduplication of the verb root, while the form in (22a) includes an o between the two roots. Besides these deverbal adverbs, one adverb has been derived from the adjectival root nò 'good': namely, nònò 'well, fine'. Finally, another adverb has been derived from the locative pronoun mfá 'here': namely, mfámfá 'now'. In both of these latter cases the process is again reduplication.

## 8.5 The derivation of prepositions

The various prepositions have been discussed in 4.4, 4.5 and 4.6. However, in this section the various complex forms and denominal forms are categorized according to type. First, two complex prepositions are formed from two nouns:

- (23) a.  $\dot{N}$ -bá      `       $\dot{N}$ -jèṃ      -->      m̀bá-ñ̀jèṃ  
           9-road AM 9-back                      'behind (lit: 'road-of-back')'
- b.  $\dot{N}$ -bá      `      ò-čì      -->      m̀b(a)-š̀čì  
                   9-road AM 14-face                      'in front (lit: road-of-back)'

Secondly, six complex prepositions are formed from the simple preposition kă 'in, on, at, to, from' and various nouns:

- (24) a. kă è-tím                      -->      k(a)-ě̀tím  
           at 5-inside                      'inside of'
- b. kă  $\dot{N}$ -jèṃ                      -->      kă-ñ̀jèṃ  
           at 9-back                      'behind'
- c. kă ó-só'                      -->      k(a)-š̀só'  
           at 14-sky                      'on top of, above'
- d. kă ó-séde'                      -->      k(a)-š̀séde'  
           at 14-lower:side                      'below, underneath'
- e. kă  $\dot{N}$ -kpè                      -->      kă-ñ̀kpè  
           at 9-side                      'beside'
- f. kă è-băd                      -->      k(a)-ě̀băd  
           at 5-section, half                      'to the side of'

Thirdly, there is one denominal preposition. In this case the noun  $\dot{N}$ -jèṃ 'back' becomes the preposition  $\dot{N}$ -jèṃ 'on the other side of'.





noun-noun sequences in which the first noun is either N-nè 'person' or N-tèm 'friend', there is no associative marker present unless a specific possessive relationship or associative relationship holds. Consider the following:

- (26) a. N-nè      N-dúm            -->    N-nèndúm  
           1-person 1-husband/male        'man'  
           à-nè      à-rúm            -->    à-nàrúm  
           2-person 2-husband/male        'men'
- b. N-nè      N-káé            -->    N-nènkáé  
           1-person 1-wife/female        'woman'  
           à-nè      à-káé            -->    à-nàkáé  
           2-person 2-wife/female        'women'
- c. N-nè      N-kúí            -->    N-nènkúí  
           1-person 1-aged:person        'senior person'  
           à-nè      à-kúí            -->    à-nàkúí  
           2-person 2-aged:person        'senior persons'
- (27) a. N-tèm      N-nè            -->    N-tèmnè  
           1-friend 1-person            'fellow person'  
           à-tèm      à-nè            -->    à-tèmànè  
           2-friend 2-person            'fellow people'
- b. N-tèm      N-ñàm            -->    N-tèmñàm  
           1-friend 9-animal            'fellow animal'  
           à-tèm      ò-ñàm            -->    à-tèmòñàm  
           2-friend 14-animal            'fellow animals'
- c. N-tèm      ì-nón            -->    N-tèminón  
           1-friend 19-bird            'fellow bird'  
           à-tèm      N-nón            -->    à-tèmnón  
           2-friend 3-bird            'fellow birds'

If the associative marker had been present, there would not have been any formal difference in the singular forms in (26), but the plural forms in (26) would have been as follows:

\*à-nè á-rùm 'men', \*à-nè á'-kǎé 'women', and \*à-nè á'-kúí 'senior people'. In each case, the second noun would have had a high tone prefix. In the case of the forms in (27), if an associative marker had been present, then there would have been an ì between the two nouns in their singular forms, while in their plural forms they would have been: à-tèm á-nè 'fellow people', à-tèm ó-ñàm 'fellow animals' and à-tèm í N'-nón 'fellow birds'.

All other noun-noun sequences besides those in (25), (26) and (27) involve an associative marker and have a prefix on both nouns. However, many of these other sequences must be considered as 'nominal expressions' since they are semantically idiosyncratic (i.e. non-compositional). Consider these few examples:

- |         |             |             |     |                                  |
|---------|-------------|-------------|-----|----------------------------------|
| (28) a. | N-mǎn       | N-ñǎn       | --> | N-mòn-ì-N-ñǎn <sup>4</sup>       |
|         | 1-child     | 1-mother    |     | 'maternal sibling'               |
|         | à-bǎn       | N-ñǎn       | --> | à-bòn-í-N-ñǎn                    |
|         | 2-child     | 1-mother    |     | 'maternal siblings' <sup>5</sup> |
| b.      | N-mǎn       | N'-sé       | --> | N-mòn-í-N'-sé                    |
|         | 1-child     | 1-father    |     | 'paternal sibling'               |
|         | à-bǎn       | N'-sé       | --> | à-bòn-í-N'-sé                    |
|         | 2-child     | 1-father    |     | 'paternal siblings'              |
| c.      | N-jòg       | ì-ká        | --> | N-jòg-ì-ká                       |
|         | 9-elephant  | 19-pangolin |     | 'giant ground pangolin'          |
|         | ò-jòg       | ì-ká        | --> | ò-jòg-í-ká                       |
|         | 14-elephant | 19-pangolin |     | 'giant ground pangolins'         |
| d.      | è-čí        | ò-kǔm       | --> | è-čí-ó-kǔm                       |
|         | 5-head      | 14-society  |     | 'mask'                           |

	bì-ǎi à-kǔm	-->	bì-ǎi-á-kǔm
	8-head 6-society		'masks'
e.	Ñ-fúg à-yé'b	-->	Ñ-fúg-á-yé'b
	3-hole 6-water		'well, spring'
f.	é-tí Ñ-kùì	-->	é-tí-Ñ-kùì
	5-tree 9-maize		'corn cob'
g.	à-ǎm Ñ-jəm	-->	à-ǎm-í-Ñ-jəm
	6-wine 9-back		'bribe'
h.	Ñ-jòg à-yà	-->	Ñ-jòg-à-yà
	9-elephant 6-river		'hippopotamus'
i.	à-mǎd è-kúm	-->	à-mǎd-é-kúm
	6-eye 5-hawk		'type of plant'
j.	ì-yím à-kád	-->	ì-yím-á-kád
	8-thing 6-foot		'shoes'
k.	è-kpù Ñ-tǔn	-->	è-kpù-Ñ-tǔn
	5-knot 9-throat		'Adam's apple'
l.	à-kú ò-kòn	-->	à-kú-ó-kòn
	6-oil 14-bee		'honey'
m.	Ñ-gbè è-gùg	-->	Ñ-gbè-è-gùg
	9-leopard 5-cold		'malaria fever'
n.	è-kím Ñ-kém	-->	è-kím-í-Ñ-kém
	5-section 9-python		'Royal python'

## Notes to chapter 8

<sup>1</sup>The nouns è-kàm 'crowd' and è-kùn 'adultery' are understood as resultative in that a group of people who answer (i.e. -kàm) someone's call form a crowd, and if a man and a woman are frequently seen seated together one would be suspicious that adultery may result.

<sup>2</sup>The verb root for 'to die' is -kpó. The velar g in ò-kpóg-à bì-jì 'surprise, fright' is reminiscent of the imperfective suffix -ág (see 6.3.3.2).

<sup>3</sup>The verb root for 'to be cool' is -nǎ. The optional velar g in ò-nǎ(g)-á N-bǎngé 'meekness, calmness' is reminiscent of the imperfective suffix -ág (see 6.3.3.2).

<sup>4</sup>Some speakers use a different tone pattern on this compound: N-mòn-í-N-ñén rather than N-mòn-ì-N-ñén.

<sup>5</sup>Note that this term and that in (28b) refers to children of either one mother or many mothers. These terms cover brothers, sisters, half-brothers, half-sisters, and cousins. They do not mean literally the 'children of one mother' or the 'children of one father'.

CHAPTER 9

HISTORICAL TOPICS

IN

EJAGHAM MORPHOLOGY

## 9.0 Historical Topics in Ejegham Morphology

### 9.1 The historical derivation of the repetitive and some negative verbal forms

In chapter 6 various verbal forms and their prefixes were presented as part of the aspect, mood and polarity system of the language. Some of these prefixes were also discussed in chapter 3, especially in section 3.3.4 where the representation of their tonal features was considered. These prefixes include the following:

- (1) a. kí<sup>1</sup> continuous
- b. kpó<sup>1</sup> repetitive
- c. kà- general hortative
- d. kâ- negative hortative
- e. ró<sup>1</sup> negative conditional, cessative
- f. bó<sup>1</sup> negative imperfective

Those prefixes with the downstep feature ' can be considered to have an underlying floating low tone. In each case, the low tone followed the prefix. The prefixes kpó<sup>1</sup> and ró<sup>1</sup> actually have various tonal realizations, but the forms in (1b) and (1e) can be considered the underlying form, the other tonal realizations deriving from tone replacement rules.

The continuous kí<sup>1</sup> in (1a) and the general negative kà- in (1c) probably derive historically from Proto-Bantu and Proto-Bantoid forms. Meeussen (1967:109) tentatively reconstructs the verbal 'limitative' -kí<sup>1</sup> as meaning 'still, no more'. He labels this form the 'perstitive'. The positive notion of this reconstructed form, namely an action 'still' in process, is not difficult to relate to the aspectual notion of the continuous. Both relate to a situation which

is not yet terminated and whose internal temporal structure is specified.

Meeussen (1967.114) reconstructs a kà' as the 'present or general negative'. This form seems directly relatable to the Ejagham form in (1c). However, for the subjunctive negative Meeussen gives the form '-tí-, which is different and certainly not cognate with the negative hortative kâ- in (1d). In fact, the form in (1d) appears to be related by some yet unknown tonal process to the 'present or general negative' reconstructed by Meeussen as kà'.

If for now one accepts these historical derivations for the verbal prefixes in (1a), (1c) and (1d), then the prefixes kpó' in (1b), ró' in (1e) and bó' in (1f) are unaccounted for historically in terms of Proto-Bantu. In fact, they probably cannot be accounted for in terms of Proto-Ekoid either. Instead they appear to be fairly recent developments within the language and even within the sub-dialect under discussion. Consider the distribution of the prefixes. The kpó' prefix in (1b) and its cognate forms are found throughout the language, although in one dialect it is unclear as to whether or not this form has yet been reanalyzed as a prefix. The prefix ró' in (1e) is basically restricted to the northern sub-dialect of Western Ejagham. Finally, the prefix bó' in (1f) appears to be limited to the Eyumojok-Ndebaya sub-dialect and a few surrounding villages within the northern sub-dialect of Western Ejagham.

The historical origin of these prefixes was probably a construction involving a verb followed by a gerund. The verb functioned like an auxiliary and the gerund functioned as the main semantic verb. There

are still constructions like this in the present-day language.

Consider the following:

- (2) a. à-síg                      ò-gbǒ  
3ps:PFV-escort 14-fall  
'she almost fell'
- b. à-kâ-b(á)                      ó<sup>h</sup>béné  
3ps-CONT-come 14-run  
'he is about to run'

In (2a) the verb -síg 'to escort' acts like an auxiliary verb with the notion of 'almost' attached to it, while in (2b) the verb -bá 'to come' has the notion of 'about to' attached to it. In each case the gerunds--- ò-gbǒ 'falling' in (2a) and ò-béné 'running' in (2b)---carry the main verbal meaning.

In the case of these three prefixes, the following processes appear to have occurred. First, the vowel of the first verb gradually came to be deleted in the presence of the prefix vowel of the gerund. Secondly, the tone in forms where replacive tone rules were not involved became high over the gerund prefix vowel, regardless of the underlying tone on the first verb. Thirdly, this raising of the gerund prefix vowel to high had the effect of leaving a downstep feature between the prefix and high tone verb roots similar to the process involved in raising the tone of noun prefixes (cf. 3.3.4). Finally the form was reanalyzed as no longer consisting of a verb followed by a gerund but of a verb preceded by a prefix.

In light of this analysis, consider the following derivations involving kpò<sup>h</sup>.

- (3) a. \*á-kpè                      ò-kájé                      -->                      á-kpò-kájé  
3pp:PFT-add 14-fry                      3pp:PFT-REP-fry  
'they have added to frying'                      'they have fried again'





Finally, consider the following case involving bó<sup>1</sup>:

- |     |                          |         |     |                         |
|-----|--------------------------|---------|-----|-------------------------|
| (5) | *á-bé'                   | ò-kánjé | --> | á-bó <sup>1</sup> kánjé |
|     | 3pp:HORT-escape          | 14-fry  |     | 3pp-NEG.IMPFV-fry       |
|     | 'they should escape from |         |     | 'they are not           |
|     | frying'                  |         |     | selling'                |
|     |                          |         |     | 'they will not          |
|     |                          |         |     | sell'                   |

In this case the semantic features of HORTATIVE and ESCAPE have combined to form the features of NEGATIVE IMPERFECTIVE. The best hypothesis is that the underlying historical form involved the hortative verb form rather than another since the tonal pattern is similar to the hortative form found in (3d) rather than any of the other forms found in (3). Thus, if it had been PERFECT rather than HORTATIVE, one would expect á-bò-kánjé, with low tone on the prefix as in (3a) above, rather than the high tone which is actually found. This applies to the analogous forms of (3b) and (3c) also.

Additional evidence for this derivation of these prefixes comes from cross-dialectal forms of the REPETITIVE. Consider the following:

- |     |    |                              |         |                   |
|-----|----|------------------------------|---------|-------------------|
| (6) | a. | Western Ejagham              |         |                   |
|     |    | á-kpô-gùdí                   |         | 'they sold again' |
|     |    | 3pp:PFV-REP-sell             |         |                   |
|     | b. | Eastern Ejagham              |         |                   |
|     |    | á-kpê-wùlé                   |         | 'they sold again' |
|     |    | 3pp:PFV-REP-sell             |         |                   |
|     | c. | Southern Ejagham: Variant 1  |         |                   |
|     |    | á-kpê                        | ò-gòdé  | 'they sold again' |
|     |    | 3pp:PFV-add                  | 14-sell |                   |
|     | d. | Southern Ejagham: Variant II |         |                   |
|     |    | á-kpô-gòdé                   |         | 'they sold again' |
|     |    | 3pp:PFV-REP-add              |         |                   |

(Note that the vowel qualities for Southern Ejagham are not entirely certain.) The Western Ejagham form in (6a) has already been discussed

in connection with (3) above. However, note that the vowel of the prefix in the Western dialect is different from the vowel found in the Eastern dialect in (6b) but similar to that found in the Southern dialect in (6d). The unrounded, front vowel is not surprising in the Eastern dialect, since today the gerund form in the Eastern dialect is formed with the class 5 prefix ε- rather than with the class 14 prefix o-. Undoubtedly, this derivation of the gerund has been used in the Eastern dialect for some time now. The forms in the Southern dialect, those in (6c) and (6d), are of special interest since they not only attest to the older, historical form of the Western and Eastern dialect, but also demonstrate the process of reanalysis in mid-stream, since the deletion of the vowel of the root -kpě 'to add' is optional. Thus, the semantic shift has occurred, but the formal, morphological reanalysis is not yet complete.

There is no comparable evidence for this process in the case of ró<sup>1</sup> or bó<sup>1</sup>. However, the analogy is so striking between the form of these prefixes and that of kpó<sup>1</sup> that the hypothesis that each underwent a similar process is highly plausible. However, there are still certain unresolved problems with this analysis. First, the deletion of a vowel ε in a CV root does not occur in the present-day language. Only the vowel a is deleted under similar circumstances, as in (2b) above. Secondly, the high tone on kpó<sup>1</sup> and ró<sup>1</sup> is somewhat surprising, although there is a parallel in the tone pattern found on directional hortative verb forms using the low-high verb root -jĩ 'to go'. Of course, it is possible that the low-high tone sequence was simply deleted along with the root vowel. Finally, other areas of Western Ejagham have the prefix mó<sup>1</sup> in place of bó<sup>1</sup>. How these relate is

uncertain even though they are strikingly similar compared to the other forms of the negative imperfective found in the language. There are two possible solutions. One is that mó<sup>1</sup> may have derived from bó<sup>1</sup>. In the first person singular, the bilabial plosive became a simple nasal: N-bó<sup>1</sup>... --> N-mó<sup>1</sup>.... Then the nasal replaced the plosive throughout the paradigm. However, there are tonal differences which complicate this solution. In some cases, a downstep is found between the subject prefix and the verbal prefix in all persons, in other areas the downstep is only in the third person singular form, and in the Eyumojok-Ndebaya area there is no such downstep in any person. Possible solutions to these variations remain to be found.

A second solution is that those areas with mó<sup>1</sup> did not derive it from -bě 'to escape' plus a gerund but from -mě 'to swallow' plus a gerund. However, the semantic relation between 'swallowing frying' and 'not frying' seems more opaque than that between 'escaping frying' and 'not frying'.

Finally, this analysis that these three verb prefixes derive from what were historically a verb root followed by a gerund raises the question of the prefixes in (1a) and (1c). Earlier it was suggested that it seemed most plausible that they derived from Proto-Bantu forms. However, it could also be that they too derived from verbs. In these cases, the prefix of the gerund would have been deleted, but this is not contradictory since they involve the vowels i and a in the verb roots rather than ε. Also, there is a good semantic relation between the possible verb forms and their present day prefixal meaning. The continuous kí<sup>1</sup> could have derived from the verb -kí 'to put, place, keep', and the negative kà could have derived from the

verb -kǎ 'to stay'. In the case of -kí 'to put, place, keep', the semantic features of the HORTATIVE and PUT/PLACE/KEEP combined to form CONTINUOUS. In the case of -kǎ 'to stay', the features of PERFECT and STAY combined to form the general negative, while those of PERFECTIVE and STAY combined to form the negative hortative. In each of these cases, the combination of these features to form the new semantic unit is plausible. The relation between 'they should put/keep frying' and 'they are frying' seems close (as in English the expressions 'they keep frying' and 'they are frying' are close). Also, the relation between 'they have stayed from frying' and 'they did not fry', and that between 'they stay from frying' (habitual sense of perfective) and 'they should not fry' seem close.

Even though this analysis of the continuous kí and the general negative kà seems less likely than the one deriving them from Proto-Bantu, it may point to a possible understanding of these Proto-Bantu prefixes in a pre-Proto-Bantu stage. Further research needs to be done to see what evidence from other Ekoid languages and dialects would suggest in the case of these two prefixes.

## 9.2 Morphological evidence of Ejagham's genetic relationship to Proto-Bantu

In the past the classification of Ejagham in relation to the Bantu languages was in doubt. Guthrie both implicitly (1948, 1953) and explicitly (1962) excluded the Ekoid languages, of which Ejagham is

one, from inclusion in the Bantu languages. His reasons appeared to be as much typological as genetic. However, in his major work, Comparative Bantu (1968-1971), he suggests that the Ekoid languages might in some way be genetically linked to a couple of Bantu languages.

By contrast, Greenberg (1963) implicitly and Crabb (1965) explicitly included the Ekoid languages within the Bantu sub-grouping of Niger-Congo. These issues are discussed in greater detail in Watters (unpublished and 1980). For purposes of this study, it is sufficient to say that it is now generally accepted that Ejagham and Guthrie's Bantu are closely genetically related. This section will give more specific evidence supporting this general acceptance.

Previous studies have touched on the relationship between Ejagham (or the Ekoid languages) and the Bantu languages. Crabb (1965) provided a word list of various Ekoid dialects and languages which demonstrates that there are numerous cognates between the Ekoid dialects and languages and the Bantu languages. He also discusses certain morphological irregularities which support a genetic relationship between Ekoid and Bantu. However, he did not present the overall relation in any systematic, explicit form. Watters (1980:144ff) does systematically present evidence for the genetic relationship between Ejagham and Proto-Ekoid on the one hand and Proto-Bantu on the other. The evidence in this case was in the area of nominal morphology, and it was in part dependent on material provided by Crabb (1968) in some unpublished notes.

However, Guthrie never seemed to be completely convinced by the presence of cognates or nominal morphology that was reminiscent of

Bantu. Instead, he sought regular sound correspondences before he could be assured that these other correspondences (i.e. lexical and morphological) were not borrowed. Watters (unpublished) attempts to speak to this point, systematically presenting the regular phonological correspondences between Proto-Ekoid and Proto-Bantu, and also indicating problematic areas in establishing phonological correspondences. In the process of presenting these correspondences, numerous cognate roots between Proto-Ekoid and Proto-Bantu are also presented.

In the first sub-section below (9.2.1), the correspondences between the Ejagham and Proto-Bantu noun class systems are reviewed. Detailed discussion of these correspondences is available in Watters (1980). In addition to these correspondences, the pronoun systems of the two languages are compared. In the second sub-section (9.2.2), the question of correspondences in the area of interrogative and locative pronouns is discussed. Much of this is also discussed in Watters (1980), but a new solution is proposed for explaining the presence of the adverbial deictics. In the third sub-section (9.2.3), a correspondence in the area of derivational morphology is discussed, specifically that of verb-plus-noun nominals. In the fourth sub-section (9.2.4), the correspondences in the areas of verbal morphology and clausal particles are discussed.

### 9.2.1 Nominal and pronominal morphology

#### 9.2.1.1 Nominal affixes

The following noun prefixes (NP) are found in Ejagham (see 4.9.1) and are reconstructed for Proto-Ekoid (Watters 1980:116) and Proto-Bantu (Meeussen 1967:97).

(7)	<u>Noun Class</u>	<u>Ejagham</u>	<u>Proto-Ekoid</u>	<u>Proto-Bantu</u>
	1	N-	mVN-	mu-
	2	a-	ba-	ba-
	3	N-	mVN-	mu-
	5	ε-	lV-	i-
	6	a-	(m)a-	ma-
	8	bi-	bi-	bi-
	9	N-	N-	n-
	14	o-	bo-	bu-
	19	i-	i-	pi-

Ejagham has (homorganic) nasal prefixes in classes 1, 3, and 9. However, unlike Proto-Bantu there is no vowel with the nasal in classes 1 and 3. The Proto-Ekoid forms for classes 1 and 3 demonstrate that in fact the nasal in Ejagham derives from a more complex prefix \*mVN-. Apart from these nasal prefixes Ejagham has primarily vowels as noun prefixes except for class 8 which has bi-. By comparison to Proto-Ekoid and Proto-Bantu it is clear that the Ejagham vowel prefixes have been simplified from what were generally CV- prefixes. Note that Welmers (1973) reconstructs \*li- as the noun prefix for class 5 rather than simply \*i-. Welmer's reconstruction for Proto-Bantu seems to be supported by the reconstruction for Proto-Ekoid in this same class. Finally, note that various gaps in the correspondence between Ejagham and Proto-Bantu are due to the merging of various noun classes. Classes 3 and 4 have merged, as have 5 and 7, 9 and 10, and 14 and 15.

The following table demonstrates the Ejagham Proto-Ekoid and Proto-Bantu correspondences for the pronominal prefixes. Ejagham



prefixes are those used in demonstratives and not those found in possessives.

(8)	<u>Noun Class</u>	<u>Ejagham</u>	<u>Proto-Ekoid</u>	<u>Proto-Bantu</u>
	1	`n̄o	`yo	`ju
	2	´ba	´ba	´ba
	3	´mi/´mu	´wi/´wu	´gu
	5	´ji	´(l)i/´l i	´di
	6	´ma	´ma (6a) ´ya (6)	´ga
	8	´bi	´bi	´bi
	9	`ñi	`yi	`ji
	14	´bu	´bu	´bu
	19	´fi	´pi	´pi

The tonal correspondences are clear: low tone in classes 1 and 9, and high tone in all other classes. The forms in classes 2, 8, 14 and 19 are either identical or nearly so. (Note that the vowels for the Ejagham affixes are reconstructed, and so are actually "Proto-Ejagham".) Noun classes 1 and 9 have acquired a nasal in Ejagham by contrast to the palatal glide in Proto-Ekoid and the alveopalatal in Proto-Bantu. The correspondences for classes 3, 5 and 6 are the most complex. The Ejagham affixes in 3 and 6 are similar to the Proto-Bantu noun prefixes for these classes in (7). In addition, for Proto-Ekoid one must distinguish between class 6 and class 6a, Ejagham having merged these two. Finally, the affix for class 5 in Ejagham is not phonetically distant from the forms found in Proto-Ekoid and Proto-Bantu, and it seems potentially derivable from

the Proto-Bantu affix although the steps from Proto-Ekoid to Ejagham are not yet clear. For further details on Ejagham and Proto-Ekoid in relation to Proto-Bantu, see Watters (1980).

#### 9.2.1.2 Genders and their semantics

For a detailed presentation of the correspondences and problems between Ejagham and Proto-Ekoid in terms of double-class and single-class genders, see Watters (1980). However, the salient points are reviewed here. First, gender 1/2 for both Ejagham and Proto-Bantu correlates with the semantic category HUMAN. Secondly, the gender 3/6 of Ejagham and the corresponding gender 3/4 in Proto-Bantu share the following lexical items: 'fire' and 'spirit'. Thirdly, gender 5/6 for both languages correlates with paired BODY PARTS. Sixthly, single-class gender 6 in both languages correlates with the semantic notion LIQUID. Seventhly, single-class gender 14 in both languages correlates with the notion QUALITY. Finally, the noun class 19 is associated with the sense of DIMINUTIVE. This sense is no longer productive in Ejagham, but it is still present in the form of certain relics. Note that Ejagham, unlike Proto-Bantu, has no augmentative classes or locative classes.

#### 9.2.1.3 Independent pronouns

Meeussen (1967:105) claims that the overall system is clear, but that the individual forms are not yet reconstructable with any certainty. But based on the best guesses of Meeussen, the following comparison can be made:

(9)	<u>Person</u>	<u>Ejagham</u>	<u>Pre-Ejagham</u>	<u>Proto-Bantu</u>
	1ps	ímè	N-m-è	ì-n-è
	2ps	wè (yè)	ù-è	ù-è
	3ps	yê (wê)	ì-ê	ù-é
	1pp	wûd (wêd)	û-d	í-cú-è
	2pp	wûn (wên)	û-n	í-nú-è
	3pp	ábǒ	áb-ǒ	bá-ò

The Ejagham forms in (9) are tentatively proposed Proto-Ejagham forms. Each form occurs in at least one dialect or sub-dialect of the language today. In fact, this paradigm is identical to that of the Bendeghe sub-dialect of northern Western Ejagham. However, it should only be taken as tentative. The forms in parentheses are some of the other forms found in various dialects and sub-dialects.

The Pre-Ejagham forms are essentially suggested (internally) reconstructed forms for pre-Proto-Ejagham. The internal reconstruction is based on the forms Meeussen suggests for Proto-Bantu, which, as has already been pointed out, are not firmly reconstructed forms. Given this high degree of tentativeness, the forms of Pre-Ejagham and Proto-Bantu are strikingly similar in various respects. In the first person singular both have a nasal and a final mid, front vowel. The second person singular forms are nearly identical both segmentally and tonally. The third person singular forms are slightly different both in terms of the first vowel and the tone. However, note that both have a high tone, pre-Ejagham in the form of a high-low sequence over one syllable segment, which distinguishes those forms from those of the second person singular. The first and second person plural forms are more problematic, the

consonants found in pre-Ejagham being more similar to what Meeuseen reconstructs for the possessive pronouns (see 9.2.1.4). The third person plural forms are nearly identical except that pre-Ejagham has the vowel and consonant of the concord element reversed. This reversal of the normal CV order in the concord element to a VC order is found throughout the paradigm of the possessive pronoun in every dialect of Ejagham (cf. 5.4).

Finally, it should be noted that Meeuseen claims that for all persons but the third person plural a final mid, front vowel e is demanded by the data, as in (9). For third person plural the back, rounded vowel o is demanded by the data. (In fact, for Proto-Bantu this o vowel is required for the independent pronouns of all noun classes. Ejagham has simplified the paradigm, however. For the third person plural only the form which is equivalent to the class 2 form in Proto-Bantu is found in Ejagham. In other words, ábo is the only third person plural independent pronoun.)

#### 9.2.1.4 Possessive pronouns

According to Meeussen (1967:107), the Proto-Bantu possessive pronoun had the following shape:

(10) PP - á - PRO

The first morpheme was the pronominal prefix or concord element. This was followed by a 'link' vowel which he reconstructs with high tone. Finally, there is the pronoun of person which also is reconstructed only with high tone. Now compare the following:

(11)	<u>Person</u>	<u>Ejagham</u>	<u>Proto-Ejagham</u>
	1ps	-amé	-ání
	2ps	-a	-áú
	3ps	-ε	-ájé
	1pp	-adé	-áítú
	2pp	-ané	-áíńú
	3pp	ábǒ	-ábó

The first vowel of the Ejagham forms for all persons but third person plural is toneless. Its tone is predictable from the concord element which precedes it. For first person singular and plural, and second person plural the tone is low on this vowel if the concord element is from classes 1 or 9, but high if the element is from any other class. For second and third person singular the tone is rising (low-high) if the concord element is from noun classes 1 or 9, but falling (high-low) if the concord element is from any other class. This correlation between class and tone is identical to the correlation found in Proto-Bantu between noun classes and the pronominal prefix: low tone with classes 1 and 9, high tone with all other classes (Meeussen 1967:97).

Besides this correlation, it can be seen that in both languages the first person singular has a nasal and a final front vowel, the third person singular a front vowel, the first person plural an alveolar plosive and the second person plural an alveolar nasal. The second person singular form in Ejagham appears to have only the 'link' vowel remaining, while the third person plural forms are identical except that in Ejagham the form is not only a morpheme but also an independent word.

Note that the Proto-Ejagham form of the third person plural in (11) is similar to the Ejagham form for the third person plural in (9). This can also be seen in Meeussen's (1967.107) reconstruction of the fourth demonstrative in his series for class 2: ab(a)o 'that (near you)', 'that (mentioned)'. It is possible that from such forms Ejagham derived its characteristic VC shape for concord elements in possessive pronouns. Note that this hypothesis differs from the metathesis process suggested by Watters (1980.119-120). In this case, a process of analogy is suggested:

(12)	<u>Proto-Bantu</u> (class 2)	<u>Ejagham</u>
	bá-ání 'mine'	bà-ámé 'mine' → àb-ámé
	bá-ábó 'theirs'	ábõ 'theirs'
	ab(a)o 'that'	ába 'that'

By analogy to the third person plural form and the distal demonstrative, the possessive pronoun prefix was altered. This alteration would have been motivated by analogy but the actual process would be that of pure substitution.

Finally, note that the specification of a as the first vowel in the first person singular and plural forms, and the second person plural forms for Ejagham in (11) involves a tentative reconstruction. As seen in 5.4, Western Ejagham today generally has a in this position.

#### 9.2.1.5 Demonstrative pronouns

The comparison of demonstrative pronouns is problematic. Meeussen (1967.107) claims that five different forms are reconstructable for Proto-Bantu, but Ejagham has only three. It is possible that for Proto-Ejagham or Proto-Ekoid a fourth form could be reconstructed, but

this is uncertain. In addition, the actual correspondences between the Proto-Bantu forms and the Ejagham forms are difficult to establish. The following are suggested:

(13)	<u>Ejagham</u>	<u>Proto-Bantu</u>	
a.	(PP)	PP	'that, the' (weak anaphoric)
b.	----	V-PP	'this' (opposed to PP-dia)
c.	<u>N-PP</u>	PP-nóo	'this (near me)' (opposed to V-PP-o)
d.	<u>á-PP</u>	V-PP-o	'that (near you)', 'that (mentioned)'
e.	<u>N-PP</u>	PP-día	'that (over there)'

PP represents the 'pronominal prefix', i.e. concord element, which generally has the shape CV in both languages.

Note that Ejagham has the three way distinction between 'this (near me)', 'that (near you)' and 'that (over there)'. In noun class 5 these would be N-jí, á-jì and N-jî, respectively. Ejagham does not have the (13a) form except in Southern Ejagham where jî (class 5), for example, functions in place of á-jì and means 'that (near you)', 'that (mentioned)'. The question is whether this PP form derives from the Proto-Bantu (13a) form and so gives attestation to a fourth form in Proto-Ejagham, or whether it derives from the (13d) form of Proto-Bantu. Therefore, the (13a) form for Ejagham is in parentheses.

The Ejagham forms in (13c) and (13e) differ from the Proto-Bantu forms in that they have a nasal prefix and no suffix. In addition, there is not a consistent correspondence in tone patterns. The suffix -nóo has the tone sequence high-low, while the -PP in Ejagham in (13c) has only high tone. The suffix -día also has the tone sequence high-low, but in this case the -PP in Ejagham in (13e) is identical with a high-low tone sequence (i.e. falling tone).

The best correspondence is that in (13d), where the Ejagham form has the vowel a followed by PP. However, the suffix -o found in Proto-Bantu is not present. In addition, Meeussen (1967:107) suggests that the tone on the Proto-Bantu form was low-low-low rather than something like the high-low found in Ejagham. However, there is a set of three forms which are discussed further in 9.2.2 which point to a pre-Proto-Ejagham, and perhaps a pre-Proto-Ekoid, suffix -o in this type of demonstrative. These forms are the two locative forms á-f-ò 'there in that place' and á-g-ò 'there in that direction', plus the adverbial deictic é-n-ò 'thus, in that manner previously mentioned'. In each of these there is a similarity to the second demonstrative of the Ejagham series except that each has what can be considered a suffix vowel -o and the PP vowel a or i, as the case may be, has been deleted. This suffix -o is very likely derived from the Proto-Bantu suffix -o in (13d).

### 9.2.2 Major interrogative and locative pronouns

It was mentioned in 9.2.1.1 that there are correspondences between Ejagham and Proto-Bantu for noun classes 1, 2, 3, 5, 6, 8, 9, 14 and 19. It was also pointed out that further details on Ejagham and Proto-Ekoid correspondences (which are more numerous) are available in Watters (1980:114ff.). In addition in Watters it was suggested that the interrogative pronouns and locative pronouns provide evidence for the additional noun classes 11, 16 and 17, the latter two being locative classes. Consider the following forms:



(14)	<u>Class 5</u>	<u>Class 11</u>	<u>Class 16</u>	<u>Class 17</u>
a.	N-jí 'this'	nná 'in this way'	mfá 'here (specific)'	ngá 'here (general)'
b.	á-jì 'that'	ánò 'in that way'	áfò 'there (specific)'	ágò 'there (general)'
c.	N-jí 'that (distal)'	---	mfò 'there (specific distal)'	ngò 'there (general distal)'
d.	jě-n 'what?'	nǎ-n 'how?'	fǎ-n 'where?'	---

The forms for class 5 are given for a reference point. It can be seen by comparing the forms for what are here labeled classes 11, 16 and 17 with those in class 5 that the best hypothesis is that the forms in (14a-c) derive from the demonstrative pronoun series of these classes. The interrogatives in (14d) appear to derive from a form  $PP\check{-}n$ , where PP is the pronominal prefix and  $-n$  is an interrogative morpheme. Class 5, which is associated with the semantic notion THING, combines with this interrogative morpheme to form the question word 'what?' Class 16, which is a locative class, combines with this interrogative morpheme to form the question word 'where?' Class 11, however, presents a problem. Since there is no such class in Ejagham today and since it is not absolutely certain that these forms do correspond to class 11, it is difficult to know what semantic feature or notion in Bantu the interrogative morpheme combined with to form the question word 'how?' It can be said that at least today these forms are associated with the notion MANNER. But what class in Proto-Bantu was associated with such a notion?

In Watters (1980.122) it was pointed out that the proposed correspondence of these forms with Proto-Bantu class 11 is problematic since the consonant in these forms is n, but that in Proto-Bantu it is d. Other lexical items do not support such a correspondence. Of course, the n could represent an assimilation of an earlier d to the nasal prefix in the form n-n-á 'in this way': n-d-á --> n-n-á. Then the d was changed throughout the paradigm. This process is now supported by the fact that Southern Ejagham has the form é-d-ò instead of á-n-ò as found in Western Ejagham. Of course, this evidence is only suggestive and certainly not conclusive since Southern Ejagham also has the form nǎ-n 'how?'

It was also suggested in Watters (1980.122) that perhaps noun class 11 was associated with gerunds and from such an association the notion of MANNER was developed. However, there is no evidence in Meeussen's (1967) work suggesting that noun class 11 was ever associated with gerunds. However, a second and perhaps more likely hypothesis is available. The hypothesis claims that these adverbial deictics and the manner question word derive from expressions like 'this side', 'that side' and 'which side?'. Meeussen (1967.102) reconstructs the noun -banji 'side' for gender 11/10. There is no cognate of this noun root known to the author in present-day Ejagham, but that does not necessarily invalidate the hypothesis since the actual derivational process probably occurred in a pre-Proto-Ekoid period and the cognate root of -banji 'side' could since have been lost.

The suggested process is exemplified in (15) where the noun phrase 'this side' is used as the origin of the present day expression 'in this way, thus'.

- (15) a. du-banjí du-nóo -->  
 ll-side ll-this  
 'this side'
- b. du-banjí du-nóo -->  
 ll-side ll-this  
 'this manner'
- c. du-nóo -->  
 ll-this  
 'in this way'
- d. Ñ-d-á -->  
 this-ll-this  
 'in this way'
- e. Ñ-n-á  
 this-ll-this  
 'in this way'

The first shift was semantic, with the expression 'this side' in (15a) being assigned the meaning 'this manner' in (15b). The second shift was lexical, with the demonstrative in (15c) taking on the sense of the entire noun phrase and the noun du-banjí 'side' in (15b) being deleted. The final shifts were phonological and morphological. Phonologically, the shape of the Proto-Bantu demonstratives changed into that found in the Ekoid languages and in Ejagham specifically. Morphologically, noun class 11 merged with another noun class, probably class 14. Also, during these processes, the cognate form of -banjí was being replaced with -kpè 'side'.

### 9.2.3 Verb plus noun nominals

In section 8.1.3 the derivation of nouns from a combination of a verb root and a noun was discussed. This derivational process is essentially identical to a process which Knappert (1965) found to be prevalent throughout the Bantu area. It is possible that this shared derivational process derives from a common historical form. This form could be schematized as in (16).

(16) PP-VERB-a-NOUN

This form had a pronominal prefix ('PP'), a verb root ('VERB'), a linking vowel a, and finally a full noun ('NOUN') which consisted of both a noun root and a noun prefix. Most commonly this noun was the logical object of the verb.

9.2.4 Verbal morphology and clausal particles

9.2.4.1 Subject prefixes

Meeuseen (1967.108) claims that Proto-Bantu had low tone for persons but high tone for classes on subject prefixes. This is essentially the case for Ejagham, except that for noun classes 1 and 9 the tone is low, like that for persons. In the case of Ejagham this claim is true for all aspectual categories except the 'constituent-focus imperfective' and the 'perfect' (see 6.3 for forms of various aspects). Meeussen (1967.108) also claims that when the subject prefix was preceded by the prefix for the 'indirect relative' or the 'negative absolute', all subject prefixes have high tone. Ejagham does not have prefixes which precede the subject prefix, but of note is the fact that the negative prefix ka- in Ejagham, which may be cognate with negative ka forms (cf. Meeussen 1967.114) in Proto-Bantu, requires high tone on all subject prefixes, whether for persons or noun classes. Finally, with regard to the tone of subject prefixes, Meeuseen (1967.112) reconstructs a high tone subject prefix. This same tone is found in Ejagham except for third person singular and noun classes 1 and 9.

The segmental shape of the subject prefixes in Ejagham has the following correspondences with those in Proto-Bantu Meeussen 1967.97).

(17)		Ejagham	Proto-Bantu
	a.	1ps	N-            n-
	b.	2ps	o-            u-
	c.	3ps	a-            u-,a-
	d.	1pp	ε-            tu-
	e.	2pp	o-            mu-
	f.	3pp	a-            ba-

The correspondences are not simple and it is not certain that there is a correspondence in each case. The forms in (17a) seem to correspond straightforwardly as do the noun prefixes for noun class 9 (9.2.1.1). The forms in (17b) are both rounded, but their heights differ. However, this difference in height is similar to the difference in vowels of the class 14 noun prefixes (cf. 9.2.1.1). Concerning the forms in (17c), Ejagham has no trace of the Proto-Bantu u-. Instead it uses a- throughout the verb system. The a- in Proto-Bantu, however, was used only in the subjunctive mood (Meeussen 1967.98). The forms in (17d) and (17e) are problematic and for now cannot be taken as correspondences except that in (17e) both have a back, rounded vowel which correspond like those in (17b) and the noun prefixes for class 14. Finally, even though Ejagham does not have a consonant in its form in (17f), it seems likely from the correspondences in 9.2.1 for noun classes that the a- corresponds to ba- in Proto-Bantu.

#### 9.2.4.2 PB limitative

Meeussen (1967.109) provides tentative reconstructions for three prefixes which he calls 'limitatives'. Of these, the 'perstitive' -kí- which means 'still; no more' appears to correspond to the Ejagham

continuous prefix kí. Both the form and meaning are nearly identical, except that the Ejagham form cannot have the negative sense of 'no more'.

#### 9.2.4.3 PB pre-final

Meeussen (1967.110) reconstructs a suffix -ag- with a meaning which is difficult to precisely define for the proto period. Present day languages suggest meanings ranging from 'imperfective' to 'repetitive' or 'habitual'. In Ejagham a similar suffix -ag is found, with variants -a and -g (see 6. 3.3.2 and 6.3.3.3). The best gloss for this suffix is 'imperfective'.

#### 9.2.4.4 Infinitive

Meeussen (1967.111) reconstructs the Proto-Bantu infinitive along the lines in (18).

(18) NP-VERB-a

The infinitive consisted of a noun prefix, a verb root and a final vowel a. The noun prefix is in most languages that of class 15, but some languages have infinitives with noun prefixes from classes 15 and 5 and other languages only with class 5. The final vowel a had low tone generally, but high tone if an object followed.

Ejagham forms the infinitive along the lines of (19).

(19) NP-verb-ám

The noun prefix is that of class 5, a verb root follows, then a suffix -ám. This suffix is a reconstructed proto-Ejagham form. It is attested in Southern Ejagham and with certain verb roots in Western Ejagham. However, for Western Ejagham one would probably want to propose an underlying -ém (cf. 3. 1.1.4), while for Eastern Ejagham

it would be -é. The tone of this suffix in Ejagham is invariably high.

#### 9.2.4.5 Negative prefixes

Meeussen (1967.114) reconstructs numerous negative prefixes for Proto-Bantu. However, Ejagham has only one form which corresponds to these reconstructed forms. This prefix is ka- which is used in both the 'general negative' and the 'negative hortative'. Meeussen (1967.114) suggests the following with ka:

- (20) a. ka 'SP- -i 'present', 'general' negative  
 b. { ka 'SP- -a } 'past (perfective)' negative  
     { á- -ídé }

ka preceded the subject prefix which was marked with high tone. The ka also co-occurred with certain suffix vowels. Ejagham does not have the suffixes. In addition, the ka- in Ejagham follows the subject prefix while in Proto-Bantu it apparently preceded it. Apart from these differences, both the form and meaning correspond.

#### 9.2.4.6 Verbal extensions

Meeussen (1967.118) suggests various reconstructed verbal suffixes. One is the 'causative', which he reconstructs as -í-. This suffix corresponds to the final vowel of various -CVCV roots in Ejagham which have a corresponding -CVC root with a slightly different meaning. The -CVCV roots often have a causative sense in relation to their paired -CVC roots. See section 8.2 for further discussion.

#### 9.2.4.7 Clausal particles

Meeussen (1967.115) reconstructs two non-predicative 'index' forms. One of these, the associative na(-) 'with, also, and' corresponds to the Ejagham na 'with, and'.

Meeussen (1967.119) also reconstructs a sub-class of verbs which are used as the initial verb in a construction with the following shape:

(21) VERB-CLAUSE

A full clause is preceded by a verb. The pre-clausal verb has the general meaning 'become aware'. The further specific meaning depends on the specific verb. Two of these verbs are -cang- 'find' and -tíg- 'leave'. The specific meaning of -cang- as suggested by Meeussen would have been 'become aware at arrival' which he says is akin to 'towards the (mentioned) person or place' and probably found elsewhere to mean 'do after arriving there'. The specific meaning of -tíg- as suggested by Meeussen would have been 'become aware at departure' which he says is akin to 'away from the (mentioned) person or place' and probably found elsewhere to mean 'do before leaving there'.

Ejagham has two forms which are similar to these two verbs: tíg 'FUTURE' and čán 'NEGATIVE OF EXISTENCE'. The future modal tíg corresponds segmentally to the Proto-Bantu verb -tig- 'to leave'. Semantically, the notion 'do before leaving there' is not far from the notion 'leave to do something' which is not far from 'FUTURE do something'. However, the 'negative of existence' čán is more problematic in its correspondence to -cang- of Proto-Bantu. First, the segmental correspondence between c in Proto-Bantu and č in Ejagham is not fully sorted out. Secondly, the meaning is almost the opposite of 'to find', namely 'not there'. The only possible hypothesis is that at some point there was a complete reversal in sense along the following lines:



- (22) a. 'find something (e.g. yams)'  
 -assuming yams are there
- b. 'find something (e.g. yams)'  
 -knowing yams not there (sarcasm)
- c. 'something (e.g. yams) not there'  
 -negative of existence/presence

It was used in a simple construction as in (22a) meaning exactly what its individual elements meant as a composite. Then in (22b) it became associated with a type of speech such as sarcasm in which its composite meaning was not intended. Finally, in (22c) the element of sarcasm was reinterpreted as its central meaning, namely 'negative of presence or existence'. However, this is pure speculation, and it is probably best to assume at this point that the two do not correspond.

#### 9.2.5 Conclusion

In the above sections, both well-supported and tentative morphological correspondences between Ejagham and Proto-Bantu have been presented. The correspondences cover nominal, pronominal, derivational, verbal and clausal-particle morphology. These correspondences indicate that Ejagham and the Proto-Bantu reconstructed by Meeussen (1967) are closely related genetically. However, in order to understand how close this relationship is much more reconstruction has to be done at the level of Proto-Ekoid and other sub-groupings such as Grassfields Bantu and Northwest Bantu.

## References

- Andersen, Nanning. 1972. Diphthongization. *Language* 48.11-50
- Anderson, Stephen R. 1974. *The Organization of Phonology*. New York: Academic Press.
- Anderson, Stephen R. 1976. Nasal consonants and the internal structure of segments. *Language* 52.326-344.
- Anderson, Stephen R. 1978. Tone features. In Victoria Fromkin (ed.). *Tone: A Linguistic Survey*, pp.133-175. New York: Academic Press.
- Ardener, Edwin. 1968. Documentary and linguistic evidence for the rise of the trading polities between the Rio del Rey and Cameroons, 1500-1650. In I.M. Lewis (ed.). *History and Social Anthropology*, pp.81-126. London: Tavistock Publications.
- Sennett, Patrick and Jan Sterk. 1977. South Central Niger-Congo: a reclassification. *Studies in African Linguistics* 8.240-274.
- Chomsky, Noam and Morris Halle. 1968. *The Sound Pattern of English*. New York: Harper and Row, Publishers.
- Clarke, John. 1848. *Specimens of Dialects: Short Vocabularies of Languages: and Notes of Countries and Customs in Africa*. Berwick-upon-Tweed: Daniel Cameron.
- Clements, George N. 1979. Review article of Baruch Elimelech's *A Tonal Grammar of Etsako*. *Journal of African Languages and Linguistics* 1.95-108.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Comrie, Bernard and Norval Smith. 1977. *Lingua descriptive series questionnaire*. *Lingua* 42.
- Courade, Georges. 1973. *Village Dictionary of Manyu Division*. Yaounde, Cameroon: DRSTROM.
- Crabb, David W. 1965. *Ekoid Bantu Languages of Ogoja*. Cambridge: Cambridge University Press.
- Crabb, David W. 1968. "Ekoid Pt. II". Mimeographed notes on the noun classes of the Ekoid Bantu languages

- Cust, Robert Needham. 1883. A Sketch of the Modern Languages of Africa. v. 1-2. London: Trubner and Co.
- de Wolf, Paul P. 1971. The Noun Class System of Proto-Banue-Congo. The Hague: Mouton
- Dik, Simon. 1978. Functional Grammar. Amsterdam: North-Holland Press.
- Dwyer, David. 1978a. What sort of tone language is Mende? Studies in African Linguistics 9.167-208.
- Dwyer, David. 1978b. Idiosyncratic, suprasegmental processes in Meade. Studies in African Linguistics 9.333-344.
- Edmondson, Eileen. 1966. Nouns of Etung classified by their singular-plural prefix pairs. In K.L. Pike. Tagmemic and Matrix Linguistics Applied to Selected African Languages, pp.206-226.
- Edmondson, Tom. 1966. Preliminary description of some verb structures in Etung. In K. L. Pike. Tagmemic and Matrix Linguistics Applied to Selected African Languages, pp.227-244.
- Edmondson, Tom. 1969. Notes on the grammar of Ejagham. ms. pp.1-114.
- Edmondson, Eileen and K. L. Pike. 1966. Ranking in singular-plural prefix pairs. In K. L. Pike. Tagmemic and Matrix Linguistics Applied to Selected African Languages, pp.109-112.
- Edmondson, Tom and Eileen. 1971. Some dialect shifts in Ejagham. Camelaog 3.19-42.
- Edmondson, Tom and Eileen. 1977. Preliminary notes towards a phonological description of Etung (Ejagham). Dallas: SIL microfiche, pp.1-58.
- Edmondson, Tom and John T. Bendor-Samuel. 1966. Tone patterns in Etung. Journal of African Languages 5.1-6.
- Elimelech, Baruch. 1976. A Tonal Grammar of Etaako. UCLA Working Papers in Phonetics. 35. Los Angeles: University of California.
- Firth, John R. 1948. Sounds and Prosodies. Transactions of the Philological Society, pp.69-87.
- Firth, John R. 1951. General linguistics and descriptive grammar. Transactions of the Philological Society, pp.69-87.

- Fromkin, Victoria. 1972. Tone features and tone rules. *Studies in African Linguistics* 3.47-76.
- Fromkin, Victoria. 1974. On the phonological representation of tone. In Ian Maddieson (ed). *The Tone Tome. UCLA Working Papers in Phonetics*, 27, pp.1-17. Los Angeles: University of California.
- Fromkin, Victoria. 1976. A note on tone and the abstractness controversy. *Studies in African Linguistics, Supplement* 6.47-62.
- Goldie, Rev. Hugh. 1862. *Dictionary of the Efik Language*. Glasgow: Dunn and Wright.
- Goldsmith, John. 1975. Tone melodies and the autosegment. In R. K. Herbert (ed.). *Proceedings of the Sixth Conference on African Linguistics*, 20, pp.135-147. Columbus: Ohio State University..
- Goldsmith, John. 1976. *Autosegmental Phonology*. Ph.D. dissertation. MIT. Reprinted by Indiana University Linguistics Club.
- Goldsmith, John. 1977. The aims of autosegmental phonology. Paper delivered at the Bloomington Conference on Phonological Theories and later published in Daniel A. Dinnsen (ed.). 1979. *Current Approaches to Phonological Theory*, pp.202-222. Bloomington: Indiana University Press.
- Greenberg, Joseph H. 1963. *The Languages of Africa*. Bloomington: Indiana University.
- Guthrie, Malcolm. 1948. *The Classification of The Bantu Languages*. London: Dawson's.
- Guthrie, Malcolm. 1953. *The Bantu Languages of Western Equatorial Africa*. London: Oxford University Press.
- Guthrie, Malcolm. 1962. Bantu origins: a tentative new hypothesis. *Journal of African Languages* 1.9-21.
- Guthrie, Malcolm. 1967-71. *Comparative Bantu*, v. 1-4. Farnborough, England: Gregg International Publishers Ltd.
- Harris, Zellig S. 1951. *Methods in Structural Linguistics*. Chicago: University of Chicago Press. (1963 impression titled *Structural Linguistics*).
- Hockett, Charles F. 1942. A system of descriptive phonology. *Language* 18.3-21.

- Hooper, Joan. 1976. *An Introduction to Natural Generative Phonology*. New York: Academic Press.
- Hyman, Larry M. 1972. A Phonological Study of Pe?fe?—Bamileke. *Studies in African Linguistics*, Supplement 4.
- Hyman, Larry M. 1978. Historical tonology. In Victoria Fromkin (ed.). *Tone: A Linguistic Survey*, pp.257-270. New York: Academic Press.
- Hyman, Larry M. and Russell G. Schuh. 1974. Universals of tone rules: evidence from West Africa. *Linguistic Inquiry* 5.81-115.
- Hyman, Larry M. and Maurice Tadadjeu. 1976. Floating tones in Mbam-Nkam. In Larry M. Hyman (ed.). *Studies in Bantu Tonology*, pp.57-112. *Southern California Occasional Papers in Linguistics*, 3.
- Hyman, Larry M. and John R. Watters. 1980. Auxiliary focus. Paper presented at the Fourth Groningen Round Table in Linguistics, July 4-8.
- Jeffreya, M. D. W. 1950. A note on the Ekoi language. *Zeitschrift fur Eingeborenen-Sprachen* 35.260-263.
- Johnston, Sir Harry H. 1919. *A Comparative Study of the Bantu and Semi-Bantu Languages*. v. 1. Oxford: The Clarendon Press.
- Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8.63-99.
- Kiparaky, Paul. 1973. How abstract is phonology? In O. Fujimura(ed.). *Three Dimensions of Linguistic Theory*, pp.5-56. Tokyo Institute for Advanced Studies of Language. Reprinted by Indiana University Linguistics Club.
- Knappert, Jan. 1965. Compound nouns in Bantu languages. *Journal of African Languages* 4.211-225.
- Koelle, Rev. S. W. 1854. *Polyglotta Africana; or A Comparative Vocabulary of Nearly Three Hundred Words and Phrases, in more than One Hundred Distinct African Languages*. London: Church Missionary House.
- Leben, William R. 1971. Suprasegmental and segmental representation of tone. *Studies in African Linguistics*. Supplement 2.183-200.
- Leben, William R. 1973a. The role of tone in segmental phonology. In Larry M. Hyman (ed.). *Consonant Types*

- and Tone, pp.117-149. Southern California Occasional Papers in Linguistics, 1.
- Lebeo, William R. 1973b. Suprasegmental Phonology. Ph.d. dissertation. MIT.
- Leben, William R. 1978. The representation of tone. In Victoria Fromkin (ed.). Tone: A Linguistic Survey, pp.177-219. New York: Academic Press.
- Maddieson, Ian. 1971. Tone in generative phonology. Research Notes 3.2 and 3.3. University of Ibadan, Nigeria.
- Mansfeld, Alfred. 1908. Urwald-Dokumente. Berlin: Dietrich Reimer (Ernst Vohsen).
- McCawley, James. 1970. A note on tone in Tiv conjugation. Studies in African Linguistics. 1.123-130.
- Meeussen, A. E. 1967. Eantu grammatical reconstructions, Africana Linguistics III, No. 61.79-121.
- Pike, Kenneth L. 1947. Phonemics, a Technique for Reducing Languages to Writing. In University of Michigan Publications, Linguistics, 3.
- Pike, Kenneth L. 1966. Tagmemic and Matrix Linguistics Applied to Selected African Languages. Ann Arbor: University of Michigan.
- Pike, Kenneth L. 1967. Language in Relation to a Unified Theory of the Structure of Human Behavior. The Hague: Mouton and Company.
- Pike, Kenneth L. 1970. Tagmemic and Matrix Linguistics Applied to Selected African Languages. Dallas: Summer Institute of Linguistics.
- Richards, Irvine. 1957. Linguistic Survey of the Northern Eantu, v. 2. London: Oxford University Press for International African Institute.
- Ruel, Malcolm. 1969. Leopards and Leaders. London: Tavistock Publications.
- Schachter, Paul and Victoria Fromkin. 1968. A Phonology of Akan: Akuspen, Assots and Pante. UCLA Working Papers in Phonetics, 9. Los Angeles: University of California.
- Schuh, Russell G. 1978. Tone rules. In Victoria Fromkin (ed.). Tone: A Linguistic Survey, pp.221-256. New York: Academic Press.

- Talbot, P. Amaury. 1912. In the Shadow of the Bush. London: William Heinemann.
- Talbot, P. Amaury. 1926. The Peoples of Southern Nigeria. v. 4. Oxford: Oxford University Press.
- Thomas, Northcote W. 1914. Specimens of Languages from Southern Nigeria. London: Harrison and Sons.
- Thomas, Northcote W. 1927. The Bantu languages of Nigeria. In F. Boss et al (eds.). Festschrift Meinhof. Hamburg: Kommissionaverlag Von L.Friederichsen and Co., pp.65-72.
- Vendler, Zeno. 1967. Linguistics in Philosophy. Ithaca, New York: Cornell University Press.
- Watters, John R. 1979. Focus in Aghem: a study of its formal correlates and typology. In Larry M. Hyman (ed.). A Grammar of Aghem, pp.137-197. Southern California Occasional Papers in Linguistics No. 7. Los Angeles: University of Southern California.
- Watters, John R. 1980. The Ejagam noun class system: Ekoid Bantu revisited. In Larry M. Hyman (ed.). Noun Classes in the Grassfields Bantu Borderland, pp.99-137. Southern California Occasional Papers in Linguistics No. 8. Los Angeles: University of Southern California.
- Watters, John R. unpublished. A reconstruction of Proto-Ekoid Bantu phonology, pp.1-60.
- Watters, John R. and Kathie L. unpublished. A phonology of Ejagam--Western dialect, pp.1-155.
- Welmers, William E. 1959. Tonemics, morphotonemics and tonal morphemes. General Linguistics 4.1-9.
- Welmers, William E. 1963. Associative a and ka in Niger-Congo. Language 39.432-447.
- Welmers, William E. 1973. African Language Structures. Berkeley: University of California Press.
- Weatermann, Dietrich and M. A. Bryan. 1952. Languages of West Africa. Part 2 of Handbook of African Languages. London: Oxford University Press for International African Institute.
- Williams, Kay. 1971. The Benue-Congo languages and Ijo. In Current Trends in Linguistics 7.245-306. The Hague: Mouton.

Winston. F. D. D. 1960. The 'mid tone' in Efik. African Language Studies 1.185-192.

Woo, Nancy H. 1969. Prosody and Phonology. Ph.D. dissertation. MIT. Reprinted by Indiana University Linguistics Club.