

**THE UNIVERSITY OF YAOUNDE I  
UNIVERSITE DE YAOUNDE I**

**FACULTY OF ARTS, LETTERS  
AND SOCIAL SCIENCES  
FACULTE DES ARTS, LETTRES  
ET SCIENCES HUMAINES**

**DEPARTMENT OF AFRICAN  
LANGUAGES AND LINGUISTICS  
DEPARTEMENT DES LANGUES  
AFRICAINES ET LINGUISTIQUE**



# **REDUPLICATION IN LAMNSO?**

*A DISSERTATION PRESENTED IN PARTIAL FULFILMENT  
OF THE REQUIREMENTS FOR THE AWARD OF  
A MASTERS DEGREE IN LINGUISTICS*

**BY**

**VERNYUY FRANCIS NDZENYUY  
B.A. ENGLISH  
UNIVERSITY OF YAOUNDE I**

**SUPERVISED BY**

**NGESSIMO MUTAKA (Ph.D.)  
Senior Lecturer  
University of Yaounde I**

**JUNE 1997**

**DEDICATION**

To my momma

Maryam Yongla Yiinyuy Ndzenyuy  
who suffered the pains of my delivery,  
brought me up in a christian manner,  
and has continued to cater  
both in prayer and in deed,  
for my spiritual and secular well being

and

To my niece

Maika Chineken Kuvinyoh  
who, by chance, or by design,  
left this world at a tender age.  
May her soul rest in perfect peace!

## **ACKNOWLEDGEMENTS**

I am grateful to my brother Shey Ndzenyuy Henry Kuvinyoh for his devotion to my intellectual, spiritual and material nourishment. Without his encouragement and financial support, I could never have dreamt of a research project like this one.

I thank my supervisor, Ngessimo Mutaka, who introduced me to a branch of Linguistics - Generative Phonology, that won my love and interest, and continued to guide me throughout my research work. I acknowledge the help that he gave me when I was choosing my topic and equally all the instructive comments that he made and which led me to understand many linguistic phenomena.

I thank all my teachers of the Linguistics department of the University of Yaounde I. This work is a manifestation of their knowledge that they shared with me.

I am very grateful to all my informants, who either informed me on Lámnso? generally, or verified my data, or did both. I refer particularly to my dad Ndzenyuy Solomon, Mr Miye Martin of the Nso? language committee, Banadzəm Relindis Nsaalav - a Lámnso? language teacher, and Yuveyonge Dzeayeh Paulette.

I am particularly grateful to Nyuydzemo-on Dolores for reading the scripts and verifying the Lámnso? in it.

I thank Karl Grebe and Winnie Grebe of the Summer Institute of Linguistics, Bamenda, for their hospitality and readiness to share with me any information that could help me in my research work. I acknowledge my extensive use of Grebe's discoveries in Lámnso?.

I am very grateful to the Summer Institute of Linguistics, Yaounde: to the library staff in general and to Esther Tawe in particular who readily helped me to get all the information I wanted from the

library; and to the organizers of the Tone Workshop Seminar of 30<sup>th</sup> September to 8<sup>th</sup> November 1996, I am referring here particularly to Keith Snider, Steven Bird and Jim Roberts. They inspired me a lot in learning how to do a tonal (phonetic and phonological) analysis of a language.

My special thanks go to the family of my brother, Shey Wiyeh Ndzenyuy Tobias, which made me feel at Kikaikom (home) in Yaounde, providing me with the parental and material support that enhanced the realization of this work.

I acknowledge the help given to me by my friends in the realization of this work. I refer here to: Umenjoh Florence, Yovka Alice, Tata Celestin, Yuyun Terence, Ngwa Gerald and all others that I might have forgotten unintentionally.

Much regards to my typist, Mme Jackie, who has taken her time to put this work into this formal and beautiful shape.

## TABLE OF CONTENTS

DEDICATION.....	i
ACKNOWLEDGEMENTS .....	ii
TABLE OF CONTENTS.....	iv
ABBREVIATIONS AND SYMBOLS.....	vii
LIST OF FIGURES .....	viii
<b>CHAPTER ONE .....</b>	<b>1</b>
GENERAL INTRODUCTION .....	1
1.1 AIM OF STUDY.....	1
1.2 SCOPE OF WORK.....	1
1.3 MOTIVATION.....	2
1.4 Lámnsõ? .....	3
1.4.1 Location of Lámnsõ? .....	3
1.4.1.1 Geographical Location.....	3
1.4.1.2 Linguistic Location.....	7
1.4.2 SOUNDS AND GRAPHEMES OF Lámnsõ? .....	9
1.4.2.1 Vowels.....	9
1.4.2.2 Consonants.....	10
1.4.2.3 Tones.....	12
1.4.3 Syllable and Word Structures in Lámnsõ? .....	13
1.4.3.1 Syllable Structure .....	13
1.4.3.2 Word Structure.....	15
1.5. DEFINITION OF TERMS/CONCEPTS.....	17
1.5.1 Reduplication, template, base and reduplicate.....	17
1.5.2 Categories of Speech.....	19
1.6. Literature Review.....	21
1.7 METHODOLOGY.....	22

1.7.1 Sources of Data..... 22

1.7.2 Classification of Data..... 23

1.7.3 Theoretical Framework..... 24

1.8 PLAN OF WORK..... 24

**CHAPTER TWO.....26**

REDUPLICATION IN NOUNS AND PRONOUNS.....26

2.1 REDUPLICATION IN NOUNS.....27

2.1.1 Whole-Word Reduplication.....27

2.1.2 Whole-Stem Reduplication.....31

2.1.3 Partial-stem Reduplication in Nouns.....36

2.1.4 Relationship between the Reduplication forms in Nouns.....45

REDUPLICATION IN PRONOUNS.....46

2.1 Personal Pronouns.....46

2.2.2 Possessive Pronouns .....49

**CHAPTER THREE.....51**

REDUPLICATION IN VERBS, ADJECTIVES AND ADVERBS.....51

3.1 REDUPLICATION IN VERBS..... 51

3.2 REDUPLICATION IN ADJECTIVES.....58

3.2.1 Whole-word reduplication.....58

3.2.2 Whole-stem reduplication.....62

3.2.3 Partial-stem reduplication.....64

3.3. REDUPLICATION IN ADVERBS..... 72

3.3.1 Whole-Word reduplication..... 73

3.3.2 Whole-stem reduplication.....75

3.3.3 Partial-stem reduplication.....77

<b>CHAPTER FOUR</b> .....	80
OTHER FORMS OF REDUPLICATION AND GENERAL CONCLUSION .....	80
4.1 OTHER FORMS OF REDUPLICATIONS.....	80
4.1.1 Ideophonic reduplications.....	80
4.1.2 Pseudo-reduplications.....	82
4.1.2.1 Affixation.....	82
4.1.2.2 Borrowings.....	84
4.1.2.3 Compounding .....	85
4.1.2.4 Possession.....	86
4.1.3 Syntactic reduplications.....	88
4.1.3.1 Pronoun Phrases.....	89
4.1.3.2 Verb Phrases.....	89
4.2 GENERAL CONCLUSION.....	91
BIBLIOGRAPHY.....	94

### ABBREVIATIONS AND SYMBOLS

C	Consonant
V	Vowel
Fig	Figure
H / <sup>ˈ</sup>	high tone
M / <sup>ˉ</sup>	mid tone
L / <sup>ˋ</sup>	low tone
ˆ	high-low contour tone
σ	Syllable
O	onset
R	rhyme
N	nucleus
Co	Coda
Suffi <sub>1</sub>	lexical suffix
Suffi <sub>2</sub>	grammatical suffix
X	base
Dn	Denasalization
∅	Zero
/	in the environment of
...>	becomes
=	equal to
RTS	Regressive Tone Spreading
PTS	Progressive Tone Spreading
*	ungrammatical
W	word
+	plus
-	minus
	association lines



RP	Received Pronunciation
CamE	Cameroon English
M.A	Master of Arts
SIL:	Summer Institute of Linguistics
ed(s)	editor(s)
pp:	page
ALCAM:	Atlas Linguistique du Cameroun
DGRST:	Délégation Générale à la Recherche Scientifique et Technique
CREA:	Centre de Recherches et d'Etudes Anthropologiques
ACCT:	Agence de Coopération Culturelle et Technique
PROPELCA:	Projet de Recherche Opérationnelle pour l'enseignement des Langues au Cameroun
ISH:	Institut des Sciences Humaines
MESIRES:	Ministère de l'Enseignement Supérieur de l'Informatique et de la Recherche Scientifique
CERDOTOLA:	Centre Régional de Documentation sur les Traditions Orales et les Langues Africaines
ICY:	Institut Catholique de Yaoundé

#### **LIST OF FIGURES**

Figure 1	Location of Bui in Cameroon.....	4
Figure 2	Location of Lámnso? in Bui .....	6
Figure 3	The genealogical tree of Lámnso? .....	8
Figure 4	The Lámnso? vowel chart .....	9
Figure 5	Phonetic chart of Lámnso? consonants....	11

## CHAPTER ONE :

### GENERAL INTRODUCTION

The topic of this thesis is "Reduplication in Lámn̄s̄ō?" In this general introduction we will include: the aim of study; the scope of work; motivation of choice of topic; an introduction to Lámn̄s̄ō? (location, sounds and graphemes, syllable and word structure); a definition of some terms and concepts as used in the work; a literature review; the methodology used; and a brief announcement of the plan of work.

#### **1.1. AIM OF STUDY**

The aim of this study is twofold: firstly, to show that reduplication is an important resource used to enrich the Lámn̄s̄ō? vocabulary; and secondly, to demonstrate how the regular process of reduplication takes place in Lámn̄s̄ō?.

For a start, we can define reduplication as the partial or whole repetition of a base, where the base may be a word, or a stem, or a root, or even an affix. For instance the Lámn̄s̄ō? word *bām* "hill" is repeated wholly - *bām.bām*, to mean "full of hills," or "hilly," or "like hills."

#### **1.2. SCOPE OF WORK**

Reduplication in Lámn̄s̄ō? is vast and varied. It will be unfair to say that we can explain all forms of reduplication in Lámn̄s̄ō?, in this work, given the limited time allocated to this research work. We have therefore focussed on reduplicative processes that constitute part of the morphophonology of Lámn̄s̄ō? especially those that are more regular and frequent in the language. In this light,

we have distinguished four forms of reduplicative processes taking place in Lámn̄sō?: whole-word reduplication which is common in nouns, pronouns, adjectives and adverbs; whole-stem reduplication which involves only monosyllabic stems, and is attested in nouns, verbs, adjectives and adverbs; partial reduplication where the initial CV of the stem is repeated to the left, for intensity (this form is particular to nouns); and partial reduplication where the initial CV of the stem is repeated to the left and the repeated V made long. This last form of reduplication is particular to adjectives and adverbs.

We have also included cases of surface reduplications which underlyingly do not result from reduplicative processes, but from other morphological processes like compounding, possession, affixation and borrowing.

### 1.3 MOTIVATION

The choice of the topic "Reduplication in Lámn̄sō?" was motivated by the researcher's interest in Generative Phonology and in tonal analysis. Of course, reduplication as a morphophonological process (SPENCER 1991) provides a good base for Generative Phonology.

The researcher suspected that the reduplication process in Lámn̄sō? could bring out some phonological rules as well as interesting tonal processes - Lámn̄sō? being a tone language. In fact, the Denasalization rule, the Regressive Tone Spreading rule and the Progressive Tone Spreading rule, discussed in chapters two and three, all show that the researcher's suspicion was somehow founded.

## 1.4 *Lámnsō?*

### 1.4.1 Location of *Lámnsō?*

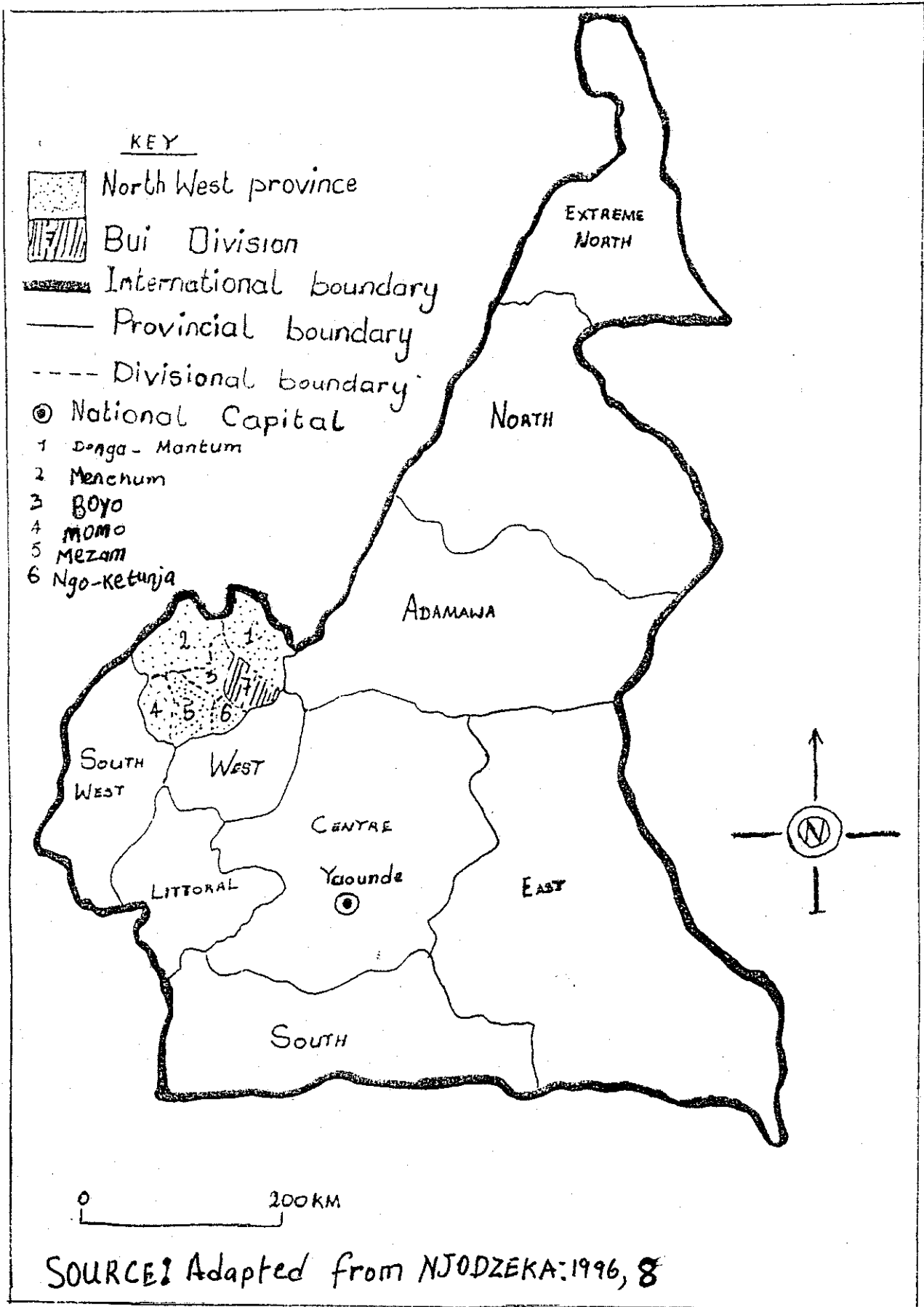
#### 1.4.1.1 Geographical Location

*Lámnsō?* is spoken in three of the five subdivisions of Bui Division in the North West province of Cameroon. These three subdivisions are: Kumbo, Jakiri and Mbvæn Subdivisions. *Lámnsō?* is the language of the *Nsō?* tribe, spoken by the *Nsō?* people (and even non - *Nsō?* people like the Oku people, and the family of Karl Grebe of Canada, to whom the major (existing) scientific works in *Lámnsō?* are attributed). The *Nsō?* people are located mainly in Bui Division, in the three subdivisions mentioned above. However, we do find large communities of *Nsō?* people spotted all over the national territory and even in other countries like Nigeria, Germany, and the United States of America.

The locality of *Nsō?* covers an area of about 2300 square kilometers, with a population of about 250,000 people (CHEM - LANGHE and FANSO V.G, 1997, 43)

Below, in Figure I, is an administrative map of Cameroon which situates Bui Division within the vast territory of Cameroon. The map is graduated into provinces, and the North West Province is further graduated into divisions.

# LOCATION OF BUI DIVISION IN CAMEROON



SOURCE: Adapted from NJODZEKA: 1996, 8

Fig. 1

The purpose of Figure 1 is to locate, pictorially, Bui Division which is the seat of Lámnsoʔ, in Cameroon. As shown in Figure 1 above, Bui Division is one of the seven divisions that make up the North West Province of Cameroon.

Figure 2 below is a map of Bui Division divided into the five subdivisions that make up the division. The purpose of this map is to indicate pictorially, the three subdivisions of Bui Division in which Lámnsoʔ is the sole, if not, the major language of communication, and also to indicate neighbouring languages to Lámnsoʔ.

As shown in Figure 2 below, Lámnsoʔ is bounded to the North by the Limbum Language spoken in Donga Mantum division, to the North East by Mbe and Tikari, spoken in Nwa subdivision in Donga Mantum division, to the East, South East and South by Shupaməm, the language of the Bamoun people spoken mainly in the Noun Division of the Western province, to the South West by Wushi and Bapakum (Mungaka) spoken in Ngo-ketunja Division and to the North West by Kuo (Oku) and Nəone respectively, spoken respectively in the Oku and Noni Subdivisions of Bui Division

# LOCATION OF LAMNSO? IN BUI DIVISION

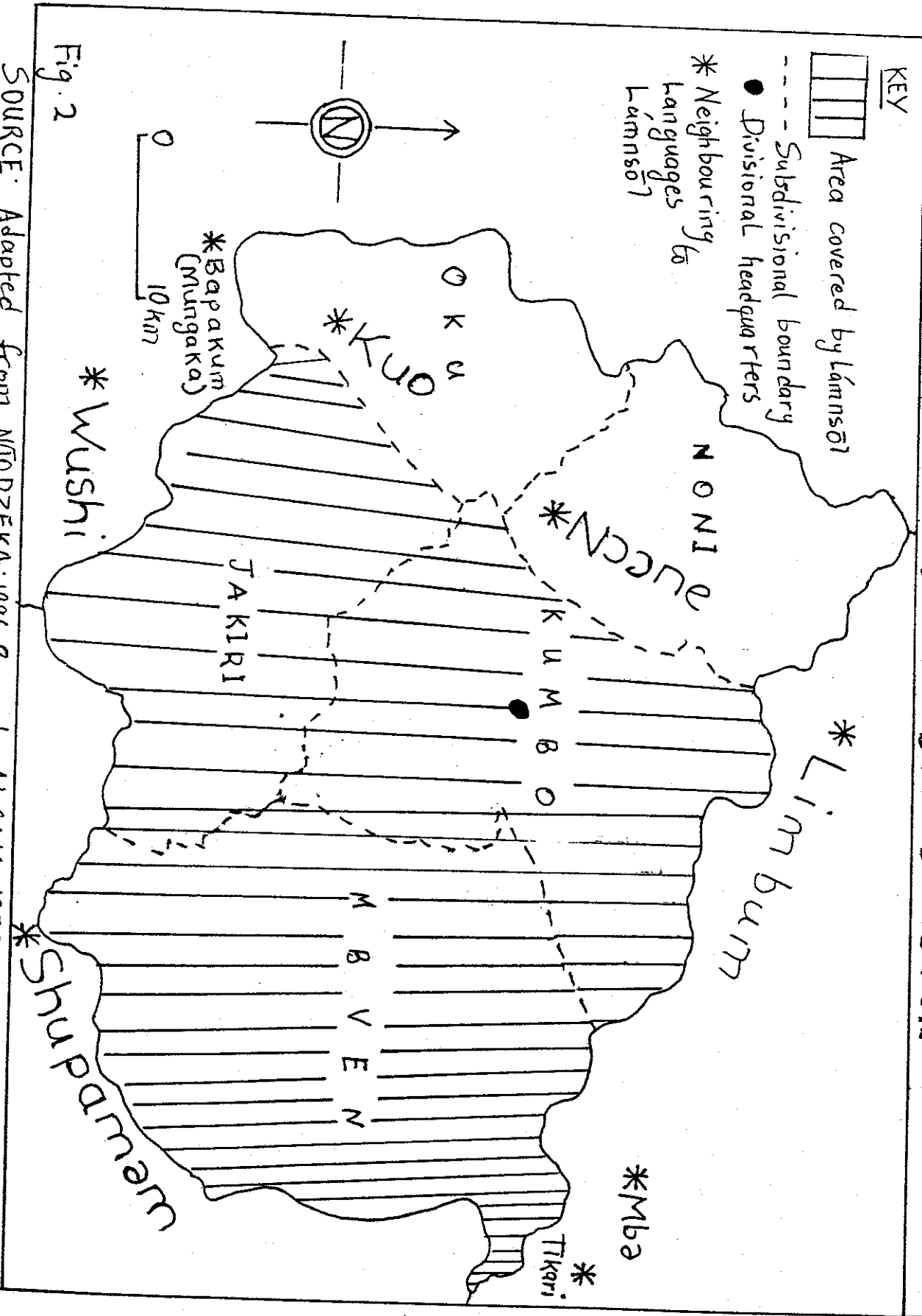


Fig. 2

SOURCE: Adapted from NDODZEKA:1996, 8 and ALCAM:1983, 403

#### 1.4.1.2 Linguistic Location

The Linguistic Location of Lámnso? is based on the classification of African languages by Greenberg (1966). He classified African languages from top to bottom into: phyla, sub-phyla, families, sub-families, branches, sub-branches, groups and specific languages. His classification was based on a comparative study of vocabularies that grouped African languages into affinity groups.

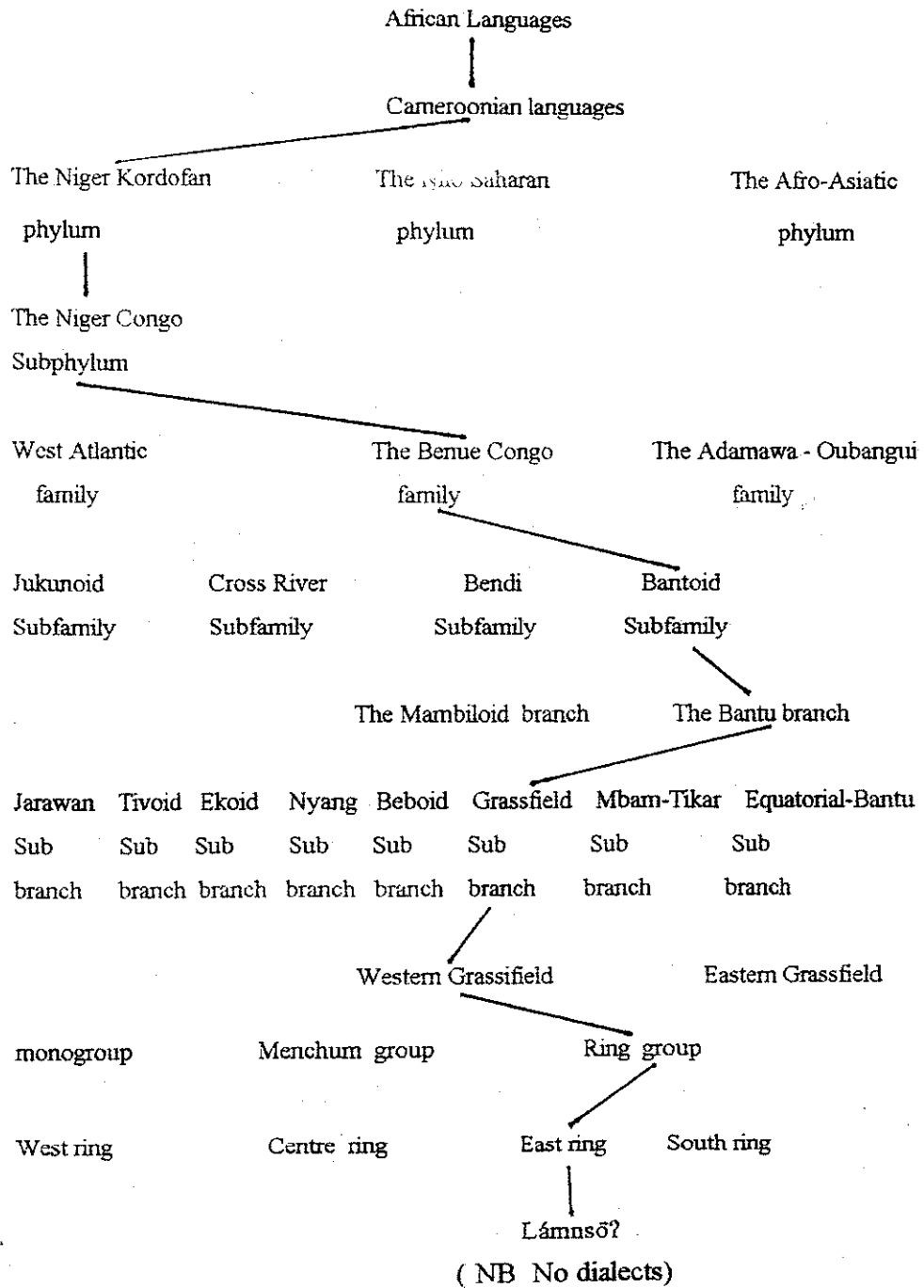
Although Greenberg (1966) did not mention Lámnso? in his classification, Lámnso? has been classified following his approach. The classification of Lámnso? in this work follows from the results of the preliminary inventory of the Linguistic Atlas of Cameroon (ALCAM) --- a national programme involved in research in national Languages. This programme, which was born in the University of Yaounde in 1971, set out to make an inventory and classification of all Cameroonian languages, and to do detailed research in these languages. By 1983, this programme had identified up to 237 languages in Cameroon, and after further research, the number rose to 248 by 1993. All these languages have been given a fresh classification (ALCAM, 1983)

Lámnso?, which is numbered in ALCAM (1983) as 830<sup>1</sup> can be traced from the Niger Kordofan phylum, to the Niger Congo sub-phylum, to the Benue Congo family, to the Bantoid subfamily, to the Western Grassfield Bantu sub-branch, to the East Ring group and finally to Lámnso? itself. The above classification is captured pictorially in Figure 3 below which shows a genealogical tree of Lámnso? based on Greenberg's classification of African languages. Lámnso?, unlike most African languages, has no dialectal variations (Grebe:1984)

---

<sup>1</sup> The three-figure ALCAM numbers have some significance. The first figure corresponds to one of the nine geographical zones of *The Preliminary Inventory* (ALCAM 1983), the second figure to a group of languages genetically similar and the third figure corresponds to the language proper, in the interior of the genetic group (BRETON, Roland and Fohtang BIKIA 1991)).





**Figure 3: The genealogical tree of Lámnsō? based on Greenberg's classification of African Languages**

Source: Adapted from ALCAM (pages: 352, 360, and 362)

## 1.4.2 SOUNDS AND GRAPHEMES OF Lámnsõ?

### 1.4.2.1 Vowels

There are six short vowel sounds in Lámnsõ?. These vowel sounds are included in figure 4 below

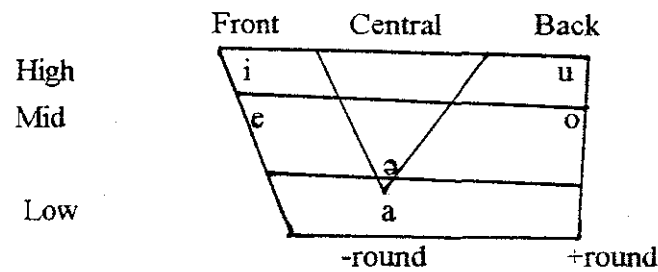


Figure 4: The Lámnsõ? Vowel chart (Source: GREBE, 1984)

The six vowel sounds above are represented by six graphemes which are identical to the sounds, that is, /i/ is represented orthographically by "i", /e/ by "e", /ə/ by "ə", /o/ by "o", /a/ by "a", and /u/ by "u."

Vowel length is distinctive as in ( 1 ) below

- (1)
- a) sũ "to wash"
  - b) súũ "to harvest completely"
  - c) dâ "tall"
  - d) dáà "to make a bridge"
  - e) bí "bad"
  - f) bíí "hole"

As shown in example (1) above, a long vowel is written as a vowel geminate.

#### 1.4.2.2 Consonants

If we include prenasalized sounds and labialized sounds there will be altogether 53 consonants in Lámn̄sōʔ at the phonetic level. All these sounds are represented below in figure 5.

All the sounds in figure 5 below are similar to their corresponding graphemes except in the following cases where the sounds differ from the graphemes: [ɲ] = "ny" [ʃ] = "sh" [ɣ] = "gh" [tʃ] = "c" [dʒ] = "j" [ʔ] = "ʔ" or "ʔ" but in this work we will use "ʔ."

As figure 5 below indicates, we will use C in this work to refer to simple consonants as in g ó y "to hit" and to complex consonants as in

CVC

ɲgòɲ	"fool"
gwâr	"to cut"
ɲgvàv	"fowl"
(CVC)	

There are only seven consonants in Lámn̄sōʔ that can occur at word final position. These include [ʔ, m, n, ɲ, y, r, v]

PLACE OF ARTICULATION HANNER OF ARTICULATION	BILABIALS		LABIODENTALS		DENTAL ALVEO-PALATALS		PREPALATALS		LABIALIZED PREPALATALS		PALATALS		VELARS		LABIALIZED VELARS		GLOTTALS		LABIOVELARS	
	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced	voiceless	voiced
Stops	p				t									k		kw		ʔ		kp
	b				d									g		gw				gb
Nasals		m			n									ŋ		ŋw				
			f	v	s		ʃ		ʃw					ʎ						ʎv
Fricatives																				
			pf	bv	ts	dz	tʃ	dʒ	dʒw											kf
Affricates																				
Pre-nasalized STOPS		mb			nt	nd								ŋk						gv
														ŋg						
Pre-nasalized fricatives																				
			mf	mv	ns		ɲf		ɲw											
Pre-nasalized affricates																				
				mbv		ndz	ndʒ													
Liquids non-fricative																				
					L															
Vibrants																				
Glides (semi-consonants)																				

Fig 5: CHART OF LAMNISO? PHONETIC CONSONANTS. SOURCE: Adapted from GREBE:1984 and GREBE:1986,7-9.

### 1.4.2.3 Tones

Lámnsō? is a complex language in terms of its tonal structure. Research done so far puts the register tones at five and the contour tones at three (GREBE 1986 and the Language Committee ). These tones include: two levels of High, a Mid tone, two levels of Low, a High-Low contour, High-Mid contour and a Low-High contour. We have used the following diacritics to mark the tones:

- / for the two levels of High as in kún "tail / beans"
- for Mid tone as in lāv "house"
- \ for the two levels of Low as in ndzəy "clothes / to delay"
- ^ for High-low contour as in sây "grave"

The remaining tones that GREBE (1984 ) and GREBE (1986 ) called contours (that is, High-Mid as in dzéō "road" and Low-High as in mbîr "bell" ) may not really be considered as contours since they occur only on long vowels and long vowels are bimoraic.

From the notation of tone above one can realize that we have not distinguished between the two levels of High and the two levels of Low. This is because in our analysis of reduplication in Lámnsō? we did not find any processes motivated by tone height, and also, in most works written in Lámnsō? (included in the literature review and Bibliography), These distinctions have not been made.

The tone bearing unit is [+syllabic] segments which include the six vowels and a syllabic nasal [m] as in m-táár "thirty" and m "I (pronoun)"

[m] is the only surface syllabic nasal in Lámnsō? ; it is used as a prefix to mark numbers from twenty upwards as in m-bàà "twenty," m-kwèè "forty" and sometimes it can be used as a word like the first person singular pronoun

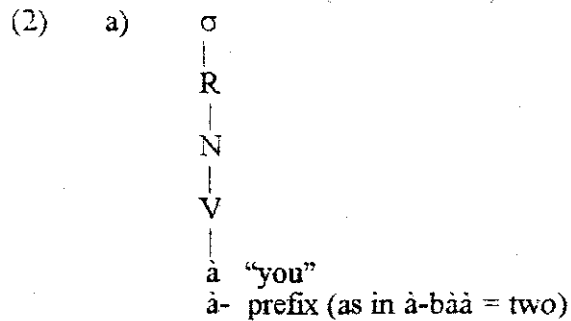
(m = I)

In this work all tones will be marked.

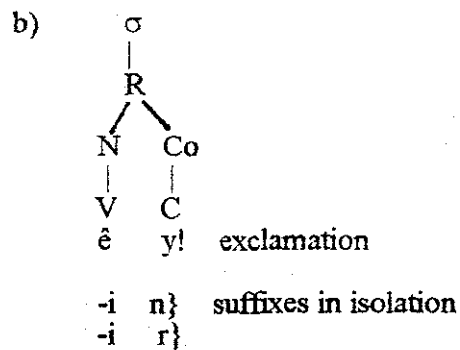
### 1.4.3 Syllable and word structures in Lámnsõ?

#### 1.4.3.1 Syllable Structure

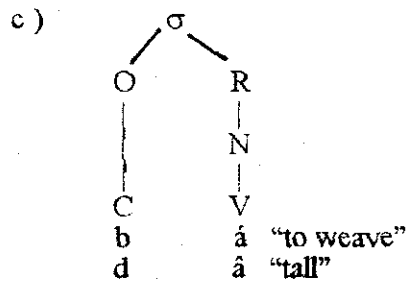
There are six types of syllables in Lámnsõ?: V, VC, CV, CVC, CVV, CVVC. These structures are drawn below in (2), where  $\sigma$  = syllable, O = onset, R = rhyme, N = nucleus and Co = Coda



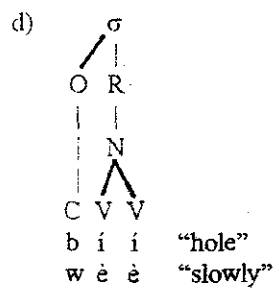
The syllable form that has only the nucleus as in (a) above, can be found only in pronouns and affixes - especially in isolation



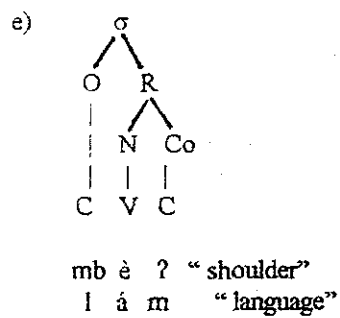
This is a very rare form of syllable found only in interjections and suffixes  
(in isolation)



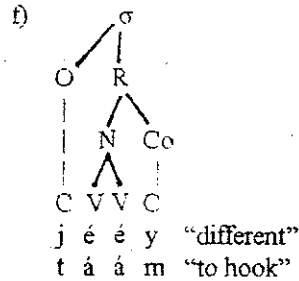
This is the core syllable in nouns, verbs, adjectives and adverbs (GREBE,  
1984)



This type of syllable is found in nouns, verbs, adjectives and adverbs.



This is the most common syllable in Lámnso? particularly in monosyllabic words



This is the maximum syllable in Lámnso?

#### 1.4.3.2 Word Structure

We will view word structure in terms of the number of syllables per word and the number / type of morphemes that make up a word.

The number of syllables per word range from one syllable to five syllables as in (3) below

- (3)
- |    |                      |           |
|----|----------------------|-----------|
| a) | mbàm                 | "money"   |
|    | CVC                  |           |
| b) | sàà. mbà             | "seven"   |
|    | CVV.CV               |           |
| c) | ngà. shí. ngá        | "cassava" |
|    | CV.CV.CV             |           |
| d) | kì - ndzó. rá. ηkfə? | "measles" |
|    | CV CV.CV.CVC         |           |
| e) | kì - ηkù. ná. yó. yō | "lizard"  |
|    | CV CV.CV.CV.CV       |           |



In (3) above, the dots indicate syllable boundaries, the hyphens separate the prefix (which constitutes a syllable) from the stem. From (3) a to e, respectively we have monosyllabic, disyllabic, trisyllabic, four-syllable and five-syllable words.

Nouns, pronouns, adjectives and adverbs can have any of the number of syllables per word exemplified in (3) above. But verbs have only monosyllabic and disyllabic words; so far there is only one trisyllabic verb - cèkèrè "to sift" which is also a noun meaning "sieve"

As far as the combination of morphemes to form words is concerned, Lámn̄sō? is mainly agglutinating, that is, many words consist of two or more morphemes (root and affixes).

The root or basic stem in Lámn̄sō? is monosyllabic (GREBE, 1984)

The main structure of nouns is prefix plus stem as in (4) below

- (4)
- |    |         |            |                 |
|----|---------|------------|-----------------|
| a) | shì-nón | "bird"     | (noun class 19) |
| b) | mè-nàŋ  | "politics" | (noun class 6a) |
| c) | kì-ŋgòm | "banana"   | (noun class 7)  |
| d) | vì-lán  | "stones"   | (noun class 8)  |
| e) | à-lúm   | "husbands" | (nouns class 2) |

Altogether Lámn̄sō? has five prefixes (shì-, mè-, kì-, vì-, à-) that mark some noun classes as indicated in (4) above. The other noun classes (classes 1, 3, 5, 9, 10) have zero prefixes. The noun classes in Lámn̄sō? were worked out by GREBE (1984). He brought out ten noun classes in Lámn̄sō?, using Proto-Bantu numbering, and following Hyman (1980: 248) who established the correspondences between the noun classes of Proto-Bantu and those of the Ring Languages of the Western Grassfield sub-branch.

The basic structure of verbs is stem plus suffix as in (5) below

- (5)
- |    |         |             |
|----|---------|-------------|
| a) | yí -kír | "to eat"    |
| b) | bá? -tí | "to gather" |

GREBE (1984) brought out twelve suffixes in Lámnṣō?, which he classified into grammatical (-i, -in) and lexical suffixes. He further grouped the lexical suffixes into : distributive (-kir, -ti, -ri); causative (-ir, -si) inchoative (-sin, -in, -iy) reciprocal (-nin) and diminutive (-tir).

All words in Lámnṣō? can take both prefixes and suffixes, except verbs which only take suffixes (GREBE, 1984).

Lámnṣō? is also isolating and synthetic. It is isolating where the tense marker is expressed by a separate morpheme as in

Bàá kī yikír “the father ate (today)”

(Father- past - eat)

marker

It is synthetic following its pronoun system where a single form can be used to indicate person, number, feminine, masculine, case. For example wù “he/she” is used to express third person, singular, feminine, masculine, subject.

## 1.5 DEFINITION OF TERMS / CONCEPTS

### 1.5.1 Reduplication, template, base and reduplicate

Reduplication has been defined variously by different writers, for instance:

MARANTZ (1982) (in what he calls a tentative definition) defines it as “a morphological process, relating a base form of a morpheme or stem to a derived form that may be analyzed as being constructed from the base form via the affixation (or infixation) of phonemic material which is necessarily identical in whole or in part to the phonemic content of the base form.”

CRYSTAL (1986:259) defines reduplication as “a term in morphology for a process of repetition whereby the form of a prefix / suffix reflects certain phonological characteristics of the root.”

The above two definitions are sufficient for us to infer that reduplication is a process (morphological); it is affixation (MARANTZ 1982, McCARTHY and PRINCE (1986), MUTAKA and HYMAN (1990); it is repetition (partial or whole). Examples of reduplication in Lámnso? include:

- (6) a) vî-kîy. vî-kîy “full of women”  
           (vî-kîy = women)
- b) kî-léŋ.léŋ “echo” (léŋ = the flow)
- c) shî-ŋgvəŋgvəv “a very small fowl”  
           (ŋgvəv = fowl)
- d) têtètèr “very easy / easily”  
           (tètèr = easy / easily)
- e) lálán “net”

The template refers to the reduplicative affix (McCARTHY and PRINCE 1986). MUTAKA (1994) defines it as “... A shape -invariant prosodic category on which melodic elements associate.” He, just like McCARTHY and PRINCE (1986), stipulates that templates consist of prosodic categories like word, syllable, foot; But MARANTZ (1982) considers a template as a C-V skeleton that may not necessarily make up a prosodic unit. In any case, a prosodic unit like syllable, foot, word, can still be specified at the level of the C-V Skeleton. The case of Lámnso? favours the argument that reduplicative affixes, or templates are prosodic units. For instance, there are four templates in Lámnso? (chapters two and three); a word; a syllable; a core syllable (an onset and a nucleus) and a heavy core syllable (an onset and two nuclei). Templates lack a segmental domain, so they trigger the copying of the melody of the units to which they attach.

A base is a unit to which a template is affixed; it can be a word, a stem or a root. On the other hand, a reduplicate is the material under the template. In a case of prefixation we have reduplicate - base as in

sháà - shàr "very little" (shàr = little)

### 1.5.2 Categories of Speech

The categories or parts of speech that we have used in this work include: nouns, pronouns, verbs, adjectives and adverbs. The use of these categories here follows the definitions of PERRIN (1990).

A noun names a person, place, thing, idea, quality or condition. Examples of nouns in Lámnso? include:

- |     |             |                  |
|-----|-------------|------------------|
| (7) | a) lúkòŋ    | "name of person" |
|     | b) Nsò?     | "name of place"  |
|     | c) lánj     | "bowl"           |
|     | d) mè-nàŋ   | "politics"       |
|     | e) mè-ndzôn | "sorrow"         |

Pronouns are those elements that can take the place of nouns, that is, they substitute for nouns, for example:

- |     |         |          |
|-----|---------|----------|
| (8) | a) wù   | "he/she" |
|     | b) kí   | "it"     |
|     | c) shér | "ours"   |

Verbs can express <sup>an</sup>action or a state of being. Some verbs in Lámnso? include:

- (9) a) dzá "to be"  
 b) lááy "to hide"  
 c) nyâm "to nag"  
 d) bé?-kír "to break"

Adjectives and adverbs are describing words. An adjective describes a noun or a pronoun while an adverb describes verbs, adjectives, other adverbs, phrases, clauses, and even sentences.

Examples of adjectives include:

- (10) a) mò?ón "one"  
 b) dá "tall"  
 c) tsám "short"  
 d) kì-ntéŋ "wrong"

Most of what English considers as adjectives have been verbalized in Lámnsō?; for example:

- (11) a) white = fār "to white" (to be white)  
 b) good = bōŋ "to good" (to be good)  
 c) black = sán "to black" (to be black)

Examples of adverbs in Lámnsō? include:

- (12) a) lèn "now"  
 b) ròŋ "down"  
 c) kì-jàvndzē "in the morning"

Many adjectives and adverbs overlap in Lámnsō?; for example:

- (13) a) mbìy "first / ahead"  
 b) tèr "easy / easily"  
 c) jūŋ "good / well"  
 d) kì-távín "strong / strongly"

- e) nyáán “peaceful /peacefully”  
 f) jééy “different / differently”  
 g) wèè “slow / slowly”  
 h) cér “fast / quickly”

### 1.6 Literature Review

Most writers on Lámnso? recognise the fact that reduplication is a pertinent process going on in the language. But they just mention it in passing, without going into the intricacies of the process. For instance, GREBE (1984 ) in The Domain of Noun Tone rules in Lámnso? just mentions reduplication as one of the word formation processes in the Language. Dzelambong (1996: 55) in The influence of Mother Tongues on English Language Usage in Cameroon.: A Case Study of Lámnso? talks of word reduplication in Lámnso?, but ends at the level of definition and a few functions. He defines word reduplication as “the process of doubling or repeating a word to express the fact that something happened time and again...” and goes further to say that reduplication shows “...degree or quantity of something...and ... time of an action.” His aim is to show how native speakers of Lámnso? tend to transfer reduplication from Lámnso? into English, hence leading to the pidginization of English.

Although literature on reduplication in Lámnso? is very limited and scanty, it is worth mentioning that there exists a commendable literature, both technical and non-technical in Lámnso?. By technical, we refer to descriptive literature on the grammar or vocabulary of Lámnso?. By non-technical, we refer to literature written in Lámnso?, but not about Lámnso? itself.

Some of the technical literature (in addition to the two books mentioned above) include: A phonology of the Nso Language (1973) by GREBE, Karl and

GREBE, Winnie. It is a structural analysis of the phonology of Lámnso? using the approach proposed by Pike (1947) in Phonemics .

A morpheme Concordance in Lámnso? (1972), "Verb clusters in Lámnso? (1978)," How to read and Write Lámnso? (1980) - all three works by Grebe, Karl. A Guide to Lámnso? Orthography (1980) by William Banboye. It is a comparative study of the Lámnso? alphabet in relation to the French and English alphabets. The Basic Lámnso? Vocabulary (1992) by William Banyee. It is a bilingual (Lámnso?- English) publication of about 2000 words currently and frequently used in Lámnso? speech.

All these works indicate that the pace has been set for probing into Lámnso? grammar. It is therefore normal and logical that we contribute to the knowledge of this grammar by describing reduplication which is part of the grammar.

Some of the non-technical literature include: Sáka Nyuy Wo Jun (1990) a translation of the New Testament by the Bible Society of Cameroon. Metítíy (Fairy tales) and Vimfèr ve Wanyeeto (Anteater Stories) - Nso? folklore written in the Nso? Language and edited by (1989) Grebe, Karl .

Also, Kintati Ke Lám Nso? (the Nso? Language Committee), is publishing "Sa?ka Nso" (a newspaper written in Lámnso?). Three editions are already published: the first one in November 1995; the second in March 1996; and the third in July 1996. The newspaper relates events in Nso?, Cameroon and the other parts of the world. It also includes some lessons on the teaching of Lámnso?.

## 1.7 METHODOLOGY

### 1.7.1 Sources of Data

As a native speaker of Lámnso?, I was my main source of information or data. But, I equally depended on the data, and some verifications of my own data,

that I got from the field through my father Ndzenyuy Solomon ( 85 years). Mrs Banadzəm Relindis, a Lámnso? teacher, and Mr. Miye Martin the Secretary of the Lámnso? Language Committee.

I also made extensive use of secondary sources like The Basic Lámnso? Vocabulary (1992) by William Banyee, The Lámnso? - Bible; version of the new testament - Sáka Nuy wo Jun (1990) by the Bible Society of Cameroon, and folklore books like Wanyeeto (1989) and Metííty (1989) written in Lámnso? and edited by Karl Grebe.

### 1.7.2 Classification of data

After collecting data of about 300 reduplications (and pseudo - reduplications), and with a word list of about 2000 words (Banyee William (1992) at my reach, I classified the data into five categories of speech: nouns, pronouns, verbs, adjectives and adverbs: Then I classified each category of speech into tone groups and into syllable groups (monosyllabic, disyllabic, trisyllabic, etc.). Nouns were further classified tentatively into noun classes following Grebe (1984 ). All these classifications were in a bid to get all the possible influences on the reduplicative process in Lámnso?.

The reduplicated forms were classified per category of speech into whole-word reduplication, whole-stem reduplications and partial reduplications.

In the analysis proper we proceeded to identify the different morphemes, that is, the bases and the reduplicates, and to posit how the reduplication process takes place at the segmental tier and at the tonal tier.



### 1.7.3 Theoretical Framework

The general theoretical framework used here is Generative, in the sense that surface phonetic structures are generated from underlying structures.

The theory of Generative Grammar was introduced by Noam Chomsky in his Syntactic Structures (1957) (Allerton 1979,3). Chomsky's first application of this approach was in syntax where he emphasized on the generation of surface structures of sentences from deep structures using transformational rules. He later applied this approach to phonology in The Sound Patterns of English (Chomsky and Halle 1968)

Nevertheless, reduplication is currently analyzed autosegmentally (Marantz (1982), McCarthy and Prince (1986), Mutaka and Hyman (1990). This approach emphasizes the independence of tiers, such that reduplication is analyzed as the affixation of a skeletal tier, that is, a tier not defined in the segmental tier, to a base morpheme or word.

Although Goldsmith (1976) originally propounded the autosegmental theory to analyse tone separately from segments, the theory has been expanded to englobe other domains like nasalization, labialisation, reduplication.

The idea of the generative approach here is equally employed very broadly to refer to the generation of surface structures from deeper more abstract structures.

### 1.8 PLAN OF WORK

This work is divided into four chapters:

Chapter one is the general introduction to the whole work. It introduces us to: the aim and scope of work; the motivation of the choice of topic; Lámnso? (location, sounds, graphemes, syllable and word structures); Certain terms like reduplication, reduplicate, template, base, and categories of speech used; literature review of Lámnso?; methodology used; and the plan of work.

Chapter two starts with the exploration of reduplication in Lámn̄sōʔ, how it takes place in nouns and pronouns.

Chapter three is a continuation of our expedition on reduplication in Lámn̄sōʔ, this time in verbs, adjectives and adverbs.

Chapter four concludes the work. It includes: other forms of reduplications (ideophonic, pseudo-, and syntactic reduplications) going on in Lámn̄sōʔ, that may not be categorized in the frameworks of chapters two and three; and a general conclusion to the work.

## CHAPTER TWO: REDUPLICATION IN NOUNS AND PRONOUNS

This chapter shows how reduplication works in Lámnso? in two speech categories - nouns and pronouns. It is divided into two sections, with each section devoted to reduplication in each category of speech. The sections are further divided into subsections, with each subsection analyzing a particular type of reduplication in a given category.

Reduplication will be analyzed **here**, as the addition of a phonemically bare affix to a base morpheme or word, which then triggers the mapping of the base's phonemic melody to the affix (Marantz 1982, McCarthy and Prince 1986).

As for the nature of the reduplicative affix we will define it in terms of what McCarthy and Prince (1986) call "authentic prosodic units," that is, word, stem, syllable, etc. But where need be, we will specify the C-V skeleton (Marantz 1982) composing the prosodic unit.

The analysis in each subsection will consist in seeking answers to the questions in (14), some of which are adapted from Mutaka and Hyman (1990).

14. A. What is the meaning of reduplication?
- B. What is the nature of the template or reduplicative affix?
- C. Is the template prefixed, infix or suffixed?
- D. What is the melody copied?
- E. What is the direction of melody mapping to the template?
- F. What are the resulting phonological (segmental) processes?
- G. How is the tone assigned in reduplication

## 2.1 REDUPLICATION IN NOUNS

There are three types of reduplication in Lámnsõ? nouns. We have named these:

- a. whole-word reduplication
- b. whole-stem reduplication
- c. partial-stem reduplication

### 2.1.1 Whole-Word Reduplication

Lámnsõ? words which fall under "nouns" reduplicate entirely to mean "full of X," or "like X" where X stands for the base word. Below are examples of whole-word reduplication for monosyllabic words (15), disyllabic words (16) and polysyllabic words (17). The examples are divided into three columns each: the first column is the base noun or word, the second column is the reduplication of the base, and the third column is the gloss.

15. a)	lá	lá.lá	handle (of hoe)
b)	shúù	shúù.shúù	mouth
c)	fúm	fúm.fúm	forehead
d)	ndzèy	ndzèy.ndzèy	clothe(s)
e)	mbĩr	mbĩr .mbĩr	bell

16. a)	kì-cí	kì-cí. kì-cí	tree
b)	à-ntā?	à-ntā?. à-ntā?	chairs
c)	mè-ndzân	mè-ndzân .mè-ndzân	sorrow
d)	kàvā?	kàvā?. kàvā?	throne

e)	búnri	búnri.búnri	prayer
f)	nsààlāv	nsààlāv . nsààlāv	floor
17. a)	kì-búnri	kì-búnri . kì-búnri	rainwater
b)	kì-ŋkámálûr	kì-ŋkámálûr . kì-ŋkámálûr	spider (a species)
c)	à-sàlámándà	à-sàlámándà . à-sàlámándà	shoes (a type of)
d)	bvàràŋgí	bvàràŋgí . bvàràŋgí	blanket
e)	cèkèrè?	cèkèrè? . cèkèrè?	sieve

The hyphens separate the prefixes from the stems while the dots show the boundary between the base and the reduplicate.

Before proceeding with the analysis of the data in (15,16,17), it is worth noting that all nouns in Lámnsõ? can undergo whole-word reduplication, whether they are monosyllabic, disyllabic or polysyllabic.

When we observe the second column of the data in (15,16, and 17), we cannot easily say which is the base noun and which is the reduplicate noun. But, if we take from Marantz (1982) that reduplication is simply affixation, and we take again from Grebe (1984) that the basic noun structure in Lámnsõ? is Prefix + Stem as in (18)

18.	Prefix - Stem	
a.	kì - ngòm	banana
b.	à - lábá?	shoes
c.	mè - ndzév	water

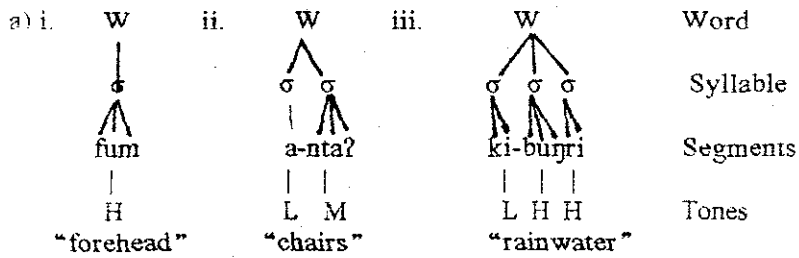
then we will have grounds to say that noun reduplication is simply prefixation and as such it has the structure

word . word  
 [ reduplicate ] . [ base ]  
 (prefix . base)

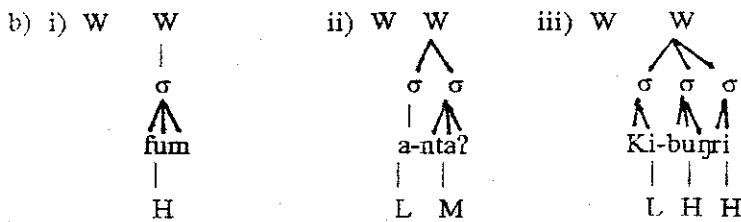
In (19) below, we will give derivations for

- i) fúm.fúm            “full of forehead(s)” or “like forehead”
  - ii) a-ntā?.à-ntā?    “full of chains”        or “like chains”
  - iii) kî-búŋri.kî-búŋri “full of rainwater” or “like rainwater”
- to demonstrate how whole-word reduplication takes place in Lámnsō? nouns.

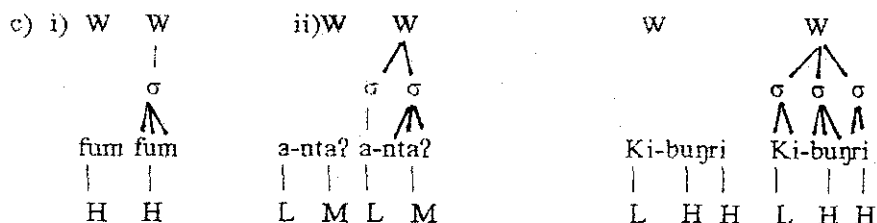
19. We have the base words



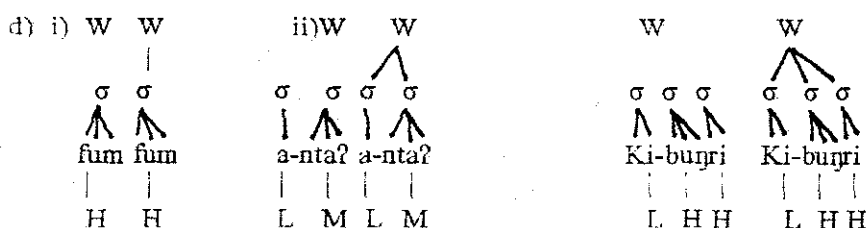
We prefix the word reduplicative template to the base



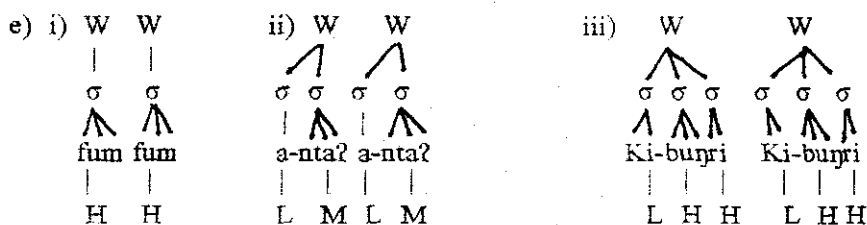
The phonemically bare prefix triggers the copying of the base melody to the left. Basing on the similarity between the tone in the reduplicate and that in the base, we copy the tone alongside the segments.



We assume that before mapping to the word template the copied material undergoes automatic syllabification after the base as follows:



We then map the syllable nodes to the word template from left to right:



full of foreheads

or  
like forehead

full of chairs

or  
like chairs

full of rainwater

or  
like rainwater

To summarize whole-word reduplication in Lámnso? nouns we will answer the analysis-questions in (14) thus:

- A) Reduplication means full of X or like X where X is the reduplicating word or base word.
- B) The template is a word
- C) The word template is prefixed
- D) The entire melody of the word is copied
- E) The direction of melody mapping is left to right
- F) No special phonological rule results from reduplication
- G) The tone is copied alongside the segmental melody

### 2.1.2 Whole-Stem Reduplication

A monosyllabic noun stem in Lámnso? reduplicates entirely to create a new lexical item from an existing one. Examples of whole-stem reduplication in Lámnso? include:

- |        |       |                    |               |                             |
|--------|-------|--------------------|---------------|-----------------------------|
| 20. a) | géè   | “tiredness”        | géè.géè       | “fifth day of the Nso week” |
| b)     | ntàŋ  | “sticky substance” | ntàŋ.tàŋ      | “trouble”                   |
| c)     | rám   | “rainbow”          | vì- rám.rám   | “October”                   |
| d)     | tónŋ  | “navel”            | vì- tónŋ.tónŋ | “hiding places”             |
| d)     | só?   | “fibre”            | kì- só?.só?   | “bamboo stump”              |
| f)     | kì-cí | “tree”             | cí.cí-wàr     | “flag” (wàr - to shake)     |

When we look at (20) above, we may think that only (20f) cí.cí wàr “flag” (from kì-cí “tree”) can be called stem reduplication, since the others seem just to be monosyllabic words. There are three reasons that have led us to entitle this subsection as whole-stem reduplication (and not whole-word reduplication): first, monosyllabic words (nouns) in Lámnso? are potential stems because they have no inherent prefix. Hence our assumption here is that monosyllabic words qualify to be



called stems. Secondly if the mono-syllabic words in (20a-e) were reduplicating as words, they will not have the meanings in (20), rather they will have the meanings in (21) below.

21. a. géè.géè "full of/like tiredness"  
 b. ntàŋ.ntàŋ "full of/like sticky substance"  
 c. rám.rám "full of/like rainbow"  
 d. tóŋ.tóŋ "full of/like navel"  
 e. sáʔ.sáʔ "full of/like fibre"

Thirdly, the fact that the reduplicated forms in (20) can still undergo reduplication at word level as in (22) below confirms that the title of this subsection as whole-stem reduplication is appropriate.

22. a. géè.géè. géè.géè "full of/like fifth day of the week"  
 b. ntàŋ.tàŋ. ntàŋ.tàŋ "full of/like trouble"  
 c. vì- rám.rám.vì- rám.rám "full of/like October"  
 d. vì- tóŋ.tóŋ.vì- tóŋ.tóŋ "full of/like hiding places"  
 e. kì sáʔ.sáʔ .kì- sáʔ.sáʔ "full of/like bamboo stump"

For the forms in (20c, d and e), which surface with a noun class prefix, we have assumed that the noun class prefix, attaches only after whole - stem reduplication has taken place. We cannot say that these forms:

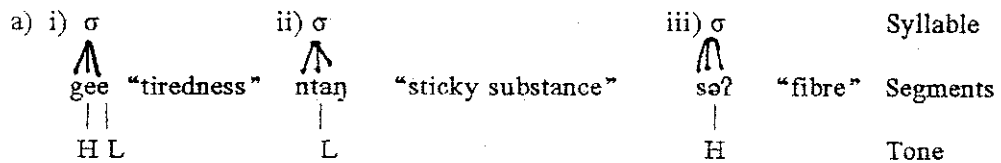
[vì-rám.rám]                      [vì- rám\*]  
 [vì- tóŋ.tóŋ]    come from    [vì- tóŋ\* ]    because the latter forms  
 [kì- sáʔ.sáʔ]                      [kì- sáʔ\* ]

have no meanings in Lámnsōʔ, that is why they are starred; although they are possible future words because they have the structure of Lámnsōʔ words.

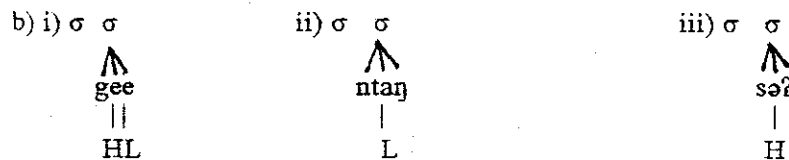
We already assumed in subsection 2.1.1 above, that in noun reduplication the template is prefixed. Since whole-stem reduplication in Lámnsō? involves only monosyllabic stems (because we did not find any examples for disyllabic and polysyllabic stems in the language), we will analyze it as the prefixation of a syllable template to a monosyllabic unit (stem). To show how this type of noun reduplication takes place, we will give illustrative derivations in (23) below, for

- (23) i) Géè.géè      “fifth day of the week”  
 ii) ntàŋ.tàŋ      “trouble”  
 iii) Kì-sá? .sá?    “bamboo stump.”

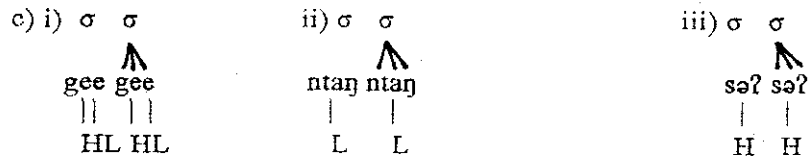
We have the unreduplicated monosyllabic stems:



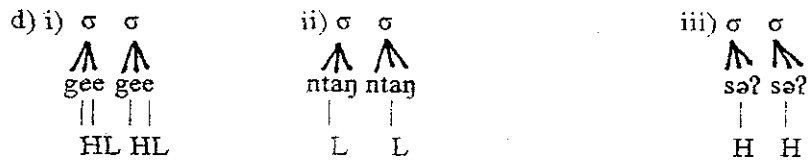
We prefix a syllable template



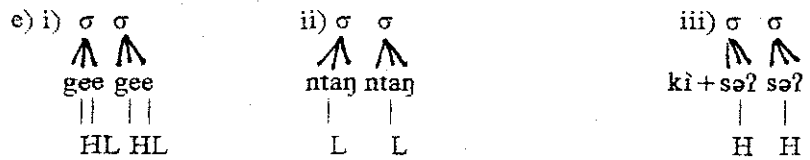
We copy the segmental melody to the left in a bid to specify the syllable template in the segmental domain (The tone just like in (19) c is copied alongside the segments)



We map the copied melody to the syllable template from left to right



The noun class prefix attaches to specify the noun class for the reduplicated form. (This is not obligatory)

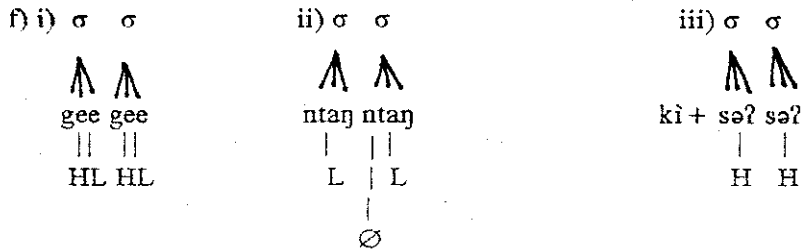


At this stage we still have one problem, that of doing away with the prenasal of the onset of the second syllable in “ntaŋ.ntaŋ” so as to derive the surface structure ntaŋ.taŋ (20b).” In this case we can posit a denasalization rule to denasalize the onset of the second syllable.

Rule 1: Denasalization (Dn) rule: a prenasalized consonant denasalizes when it follows a nasal consonant. The rule can be stated in features thus:

$$\begin{array}{l} [+consonantal] \\ [+nasal] \end{array} \rightarrow \begin{array}{l} \sigma / [+consonantal] \\ [+nasal] \end{array} \text{ --- } \begin{array}{l} [+consonantal] \\ [-nasal] \end{array}$$

Hence the rule denasalizes the onset of the second syllable thus



We therefore, have the surface structures:

- |                                     |                          |                                  |
|-------------------------------------|--------------------------|----------------------------------|
| g) i) Géègéè<br>“fifth day of week” | ii) ntàntàŋ<br>“trouble” | iii) kì-sé?sé?<br>“bamboo stump” |
|-------------------------------------|--------------------------|----------------------------------|

There are some onomatopoeic reduplications in Lámnsō? which can be accounted for in a similar way. Some of these onomatopoeic words are included in (24) below

- (24) a) pámpám “tin or can”  
(pám-noise made when an empty tin or can is hit)
- b) kwàŋ.kwàŋ “An arrow shouting device”  
(kwàŋ-noise made when an arrow is shot)
- c) shì-tùm.tùm “motorbike”  
(tùm-noise made by the engine of a motorbike when in motion)

To summarize whole-stem reduplication in nouns we will give the following answers to the questions in (14):

- A. Reduplication means that a new lexical item is created from an existing monosyllabic stem (which more often is also a monosyllabic word).
- B. The reduplicative template is a syllable
- C. The one syllable template is prefixed
- D. The entire melody of the stem is copied
- E. The melody is mapped to the template, from left to right.
- F. Reduplication results in the Denasalization rule
- G. Tone is copied alongside the segments.

### 2.1.3. Partial-stem Reduplication in Nouns

Lámnsõ? noun stems reduplicate partially to intensify diminutives. The paradigms (25) (26) and (27) below show partial reduplications in monosyllabic, disyllabic and polysyllabic nouns respectively. The first column is the noun, the second column shows the diminutive of the noun, which means "a small x," the third column is the reduplication which means "a very small x" where "x" refers to the respective noun in column one, then the last column is the gloss

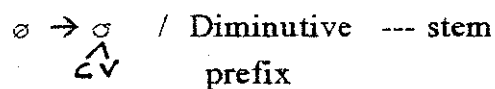
(25) a)	cú	shì-cú	shì-cú-cú	offering
b)	bàá	shì-bàá	shì-bà.bàá	father
c)	Kún	shì-kún	shì-kú.kún	beans
d)	nyòy	shì-nyòy	shì-nyò.nyòy	cutlass
e)	bvâm	shì-bvâm	shì-bvâ.bvâm	stomach

(26) a)	wánlè	shì-wánlè	shì-wá.wánlé	child
b)	bùùné	shì-bùùné	shì-bù.bùùmé	sleep
c)	fõvtá?	shì-fõvtá?	shì-fõfõvtá?	blackjack

d)	lúmèn	shì-lúmèn	shì-lúlúmèn	man
e)	shúulāv	shì-shúulāv	shì-shú.shúulāv	door
(27) a)	nsàà búlù	shì-nsààbúlu`	shì-nsà.nsåàbúlu	soap
b)	tsàmcéré?	shì-tsàmcéré?	shì-tsàtsàmcéré?	cricket
c)	ngàshíngá	shì-ngàshíngá	shì-ngàngàshíngá	cassava
d)	bvàràngí	shì-bvàràngí	shì-bvà.bvàràngí	blanket
e)	wànyèètó	shì-wànyèètó	shì-wà.wànyèètó	Mongoose

We observe in the data above (25) (26) and (27), that diminutive prefixation precedes partial-stem reduplication in Lámnsō? grammar. Of course, we must first have diminutives before we can intensify them. The prefix shì-, in addition, to marking noun class 19 also marks the diminutive of nouns in Lámnsō? (GREBE (1984).

The first impression we make from simple observation of the type of reduplication in (25) (26) and (27) is that a syllable template with a fixed skeletal structure - an onset and a nucleus, is inserted between the diminutive prefix and the stem, that is



(Insert a syllable having only an onset and a nucleus between the diminutive prefix and the stem) such an insertion rule (as above) will be defined purely in a morphological environment, but it will not be surprising, as reduplication is morphophonological.

However, there are many words in Lámnsō?, as in (28) below, which are reduplicated in a similar manner but they do not have diminutive prefixes.

- (28) a)  $\eta\acute{e}\eta\acute{e}\eta$  "mosquito"  
 b)  $s\acute{a}s\acute{a}\eta$  "broom"  
 c)  $b\acute{u}b\acute{u}?$  "cheek"  
 d)  $c\acute{e}c\acute{e}y$  "dirt"  
 e)  $b\acute{i}b\acute{i}\eta$  "calabash"

The data in (28) above is analyzed under ideophonic reduplications in section 4.1.1. It shows reduplication which is similar to that in (25) (26) and (27), and can therefore be accounted for in the same way; so instead of inserting the syllable template between the diminutive prefix and the stem, we will consider that the template is prefixed, as illustrated in (30) below.

Nevertheless, before illustrating in (30) how the syllable template is prefixed, let us note that unlike whole-word reduplication and whole-stem reduplication where we did not specify the CV skeleton for the syllables, because we assumed that there was automatic syllabification of the copied material; here, with partial-stem reduplication, we have to deal with a situation where the syllable is limited only to an onset and a nucleus, in the C-V skeletal tier. In this case, we will specify the following rules or conditions in (29) (based on MARANTZ (1982,446-47)) for mapping copied segments to the C-V skeleton.

- a) [-syllabic] segments can link only with C-slots and  
 [+syllabic] segments can link only with V-slots
- b) Segments are linked to CV slots one to one, there can be no multiple attachments. Unattached segments are truncated
- c) The association of segments to the CV skeleton is phoneme-driven, that is, each segment scans along the C-V skeleton until it finds an appropriate slot under condition (a) above.

We give in (30) below derivations for

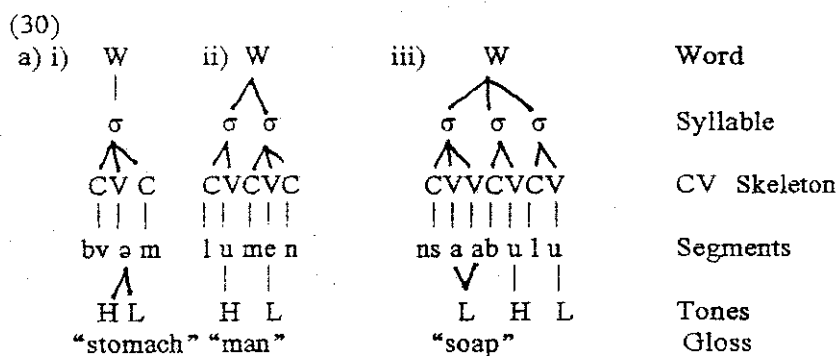
i) shì-bvḗ.bvêḿ “a very small stomach”

ii) shì-lúlúmèn “a very small man”

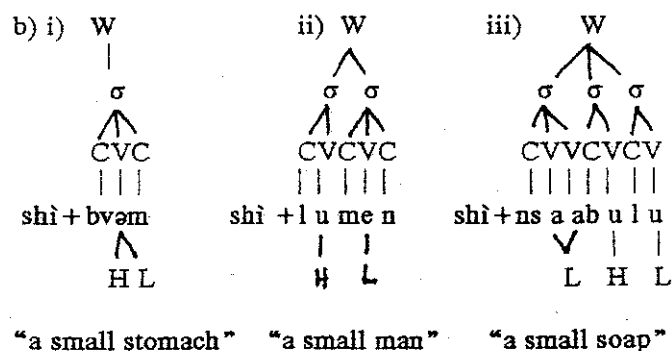
iii) shì-nsà.nsåàbùlù “a very small soap”

to illustrate how partial-stem reduplication takes place in nouns.

We have the base nouns:

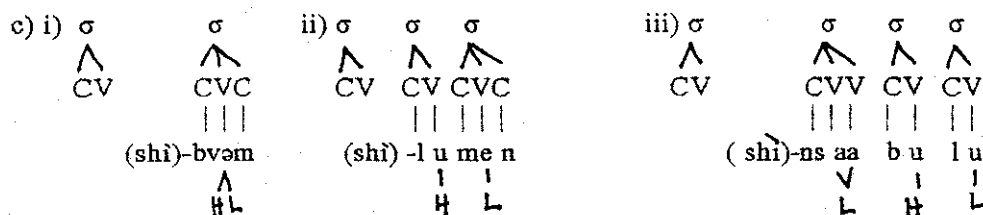


We attach the diminutive prefix (since we must first have diminutive before intensifying it)

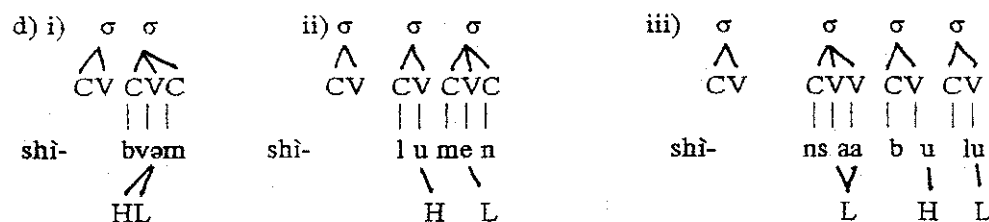


The syllable template is prefixed:

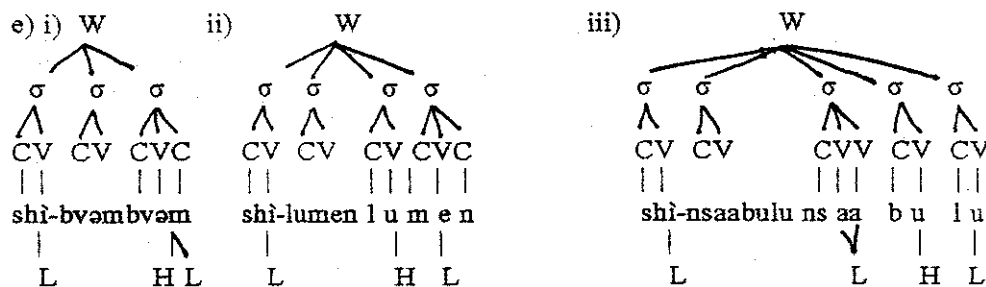




The brackets in (c) above suggest that the diminutive prefix is prosodically circumscribed and thus rendered invisible to the syllable template. Hence, the template is prefixed to the stem (or base word).



In order to specify the template in the segmental domain we copy the entire melody (STERIADE 1988) of the stem to the left



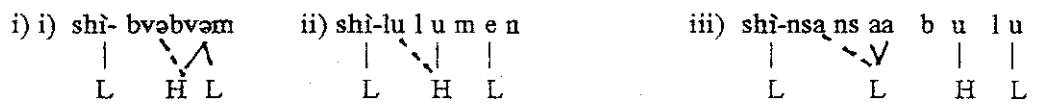
The copied segments map to the template from left to right following the rules in (29) above



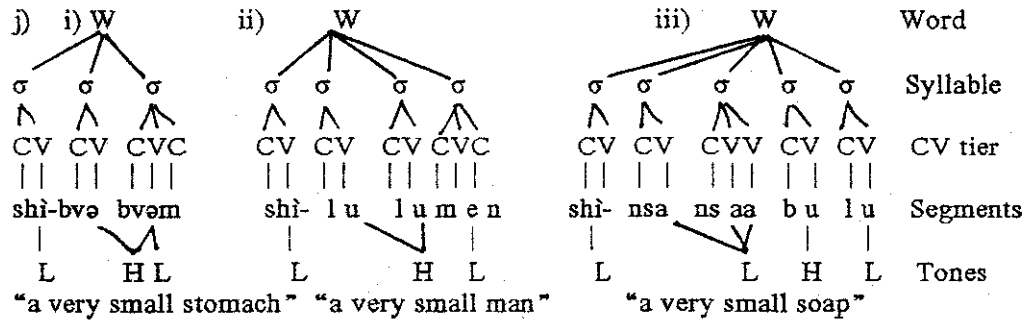
segmental melody. Consequently, the reduplicate gets the tone with which it surfaces from the tone of the stem through a process of tone spreading which we have captured in rule 2 below

Rule 2: Regressive Tone Spreading (RTS) rule: a following tone spreads backwards (that is, regressively) to a preceding toneless mora - tone bearing unit.

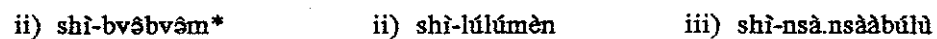
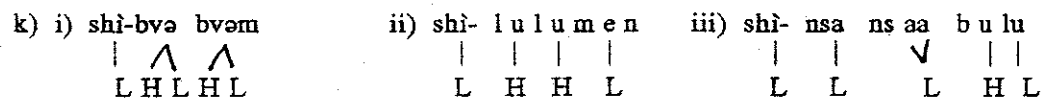
The rule spreads the tones as follows



We thus arrive at the phonetic structures below



On the other hand, we could still say that the tone is copied along with the segments and we will have the structures in (k) below.





Nevertheless, both forms of inflecting nouns, that is, partial-stem reduplication and the forms in (31) and (32) above, are all acceptable in Lámnsõ? grammar.

Partial-stem reduplication may be taken for whole-stem reduplication, especially in cases where the stem is monosyllabic and has only an onset and a nucleus, like in (33) below:

- |         |             |                         |                  |
|---------|-------------|-------------------------|------------------|
| (33) a) | shì-cúcû    | “a very small offering” | (cû = offering)  |
| b)      | shì-lálá    | “a very small handle”   | (lá = handle)    |
| c)      | shì-ncà-ncà | “a very small antelope” | (ncà = antelope) |
| d)      | shì-yóyó    | “a very small snake”    | (yó = snake)     |
| e)      | shì-kpú.kpú | “a very small death”    | (kpú = death)    |

To conclude on Partial-Stem reduplication, we will answer the analysis-questions in (14)

A) Partial-stem reduplication means “very” that is it acts as an intensifier to noun diminutives.

B) The reduplicative template is one syllable which has a permanent structure of an onset and a nucleus. This is the core syllable for major syntactic categories like nouns, verbs, adjectives and adverbs. In other words the reduplicative template is the core syllable.

C) The core-syllable template is prefixed

D) The part of the melody copied is the initial CV of the stem.

E) The direction of melody mapping to the template is from left to right

F) No particular phonological (segmental) rules arise from partial stem reduplication

G) The tone is assigned to the reduplicate through regressive tone spreading of the base-stem tone.

#### 2.1.4 Relationship between the Reduplication Forms in Nouns

We have seen above that there are three forms of reduplication in Lámnsō? nouns: two at the level of stem - whole-stem reduplication and partial-stem reduplication; and one at the level of word - whole-word reduplication.

The relationship between these forms of nominal reduplications is that stem-level reduplications can still undergo word level reduplication as in (34) below

- (34) a) pámpám.pámpám “full of / like tin(s)”  
 b) ntàntàŋ.ntàntàŋ “full of / like trouble”  
 c) kì-sá?sə?.kìsá?sá? “full of / like stump(s)”  
 d) shì-fúfúm.shì-fúfúm “full of / like a very small forehead”  
 e) shì-lālāv.shì.lālāv “full of / like a very small house”

But stem-level reduplications can no longer undergo any form of stem-level reduplication as in (35) below

- (35) a) shì-pá.pámpám\* “a very small tin”  
 b) shì-ntà.ntàntàŋ\* “a very small trouble”  
 c) shì-gé.géègéè\* “a very small fifth day”

The star indicates that such words are ungrammatical in Lámnsō?.

Equally, word-level reduplication is not recursive so we cannot have for instance:

- (36) a) fúmfúm-fúmfúm\* “full of full-of-foreheads”  
 b) vì-cí vì-cí.vì-cí vì-cí\* “full of full-of-trees”

## 2.2. REDUPLICATION IN PRONOUNS

Reduplication in Lámnsō? pronouns is not only limited to whole-word reduplication, but is also limited to the reduplication of personal pronouns and possessive pronouns.

### 2.2.1 Personal Pronouns

Personal pronouns are those that substitute for nouns that name people or things. Below in (37), (38) and (39) are, respectively, monosyllabic, disyllabic and polysyllabic examples of personal pronouns and their reduplicated forms.

- (37) a) mō      “me”                      mō.mō      “by myself”  
       b) wò      “you”                              wò.wò      “by yourself”  
       c) wūn     “him/her”                      wūn.wūn    “by himself / herself”  
       d) vēr     “we/us”                            vēr.vēr      “by ourselves”  
       e) vēn     “you (plural)”                    vēn.vēn      “by yourselves”

- (38) a) wòsò                      “we (a speaker and a listener)”  
           wòsò.wòsò      “by ourselves”  
       b) vèsān                    “we (speaker, listener, and referents)”  
           vèsān-vèsān    “by ourselves”  
       c) vènwūn                “you (listener and referent)”  
           vènwūn.vènwūn    “by yourselves”

- (39) a) áwūnē                    “they / them”  
           áwūnē.áwūnē      “by themselves”  
       b) vèráwūnē              “we (and them)”  
           vèráwūnē.vèráwūnē    “by ourselves”

- c) vènáwūnē      “you (and them)”  
     vènáwūnē.vènáwūnē      “by yourselves”
- d) vèsēnāwūnē      “we (including listeners and referents)”  
     vèsēnāwūnē.vèsēnāwūnē      “by ourselves”

The above examples indicate that only object personal pronouns reduplicate. They reduplicate to mean the adverbial expressions “by plus reflexive pronoun” as shown in (37), (38) and (39) above.

Subject personal pronouns like those in (40) below, do not reduplicate for any purpose.

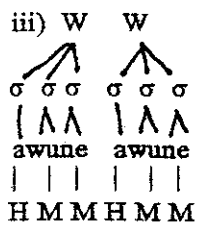
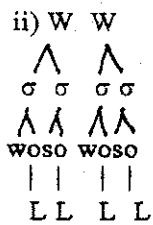
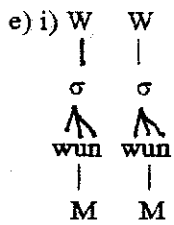
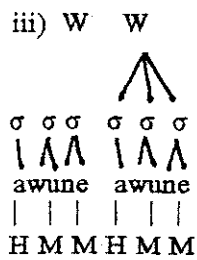
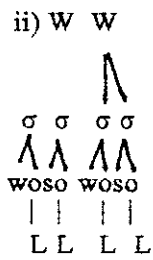
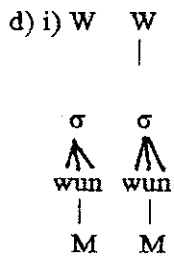
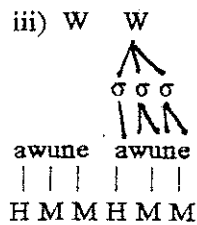
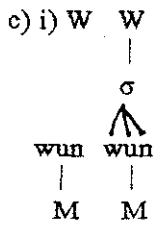
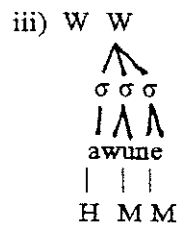
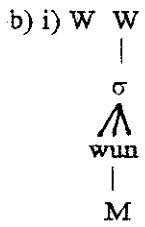
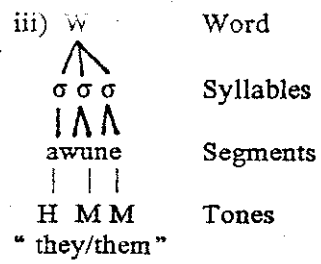
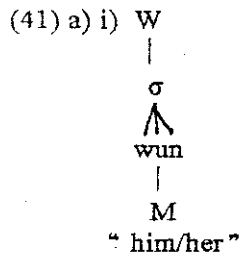
- (40) a) M̄    “I”      M̄.M̄\*  
       b) à    “you”      à.à\*  
       c) wù    “he/she”      wù.wù\*  
       d) á    “they”      á.á\*

The stars indicate that such reduplications are unacceptable in Lámnsō?

The analysis of whole-word reduplication in pronouns is similar to that of whole-word reduplication in nouns (section 2.1.1). Moreover, pronouns are closely related to nouns, as they can be substituted for nouns. Below in (41), to illustrate how whole-word reduplication works in pronouns, we give derivations for

- i) wūn-wūn      “by himself / herself”  
 ii) wòsò.wòsò      “by ourselves”  
 iii) áwūnē.áwūnē      “by themselves”





"by himself / herself" "by ourselves"

"by themselves"

In (41) above, we have:

- a) - the base pronouns,
- b) - prefixation of a word template,
- c) - copying of pronoun melody (segments and tones),
- d) - automatic syllabification which follows from the base, and
- e) - left to right mapping of the syllable nodes to the word template.

### 2.2.2 Possessive pronouns

Possessive pronouns are those that show possession or ownership. In Lámnsoʔ, they surface, already fused with the noun class concord for example *kém* "mine" for noun class seven with the prefix *kì-*, *vém* "mine" for noun class eight with the prefix *vì-*

Below are monosyllabic, disyllabic and polysyllabic examples of possessive pronouns and their reduplicated forms in (42), (43), and (44) respectively.

- |      |    |              |                 |                    |                       |
|------|----|--------------|-----------------|--------------------|-----------------------|
| (42) | a) | <i>shém</i>  | "mine"          | <i>shém.shém</i>   | "only mine"           |
|      | b) | <i>shé</i>   | "yours"         | <i>shé. Shé</i>    | "only yours"          |
|      | c) | <i>kfǎ</i>   | "his/hers"      | <i>kfǎ.kfǎ</i>     | "only his/hers"       |
|      | d) | <i>kér</i>   | "ours"          | <i>kér.kér</i>     | "only ours"           |
|      | e) | <i>vén</i>   | "yours"         | <i>vén.vén</i>     | "only yours (plural)" |
|      | f) | <i>vév</i>   | "theirs"        | <i>vév.vév</i>     | "only theirs"         |
|      |    |              |                 |                    |                       |
| (43) | a) | <i>kēsān</i> | "ours"          | <i>kēsān.kēsān</i> | "only ours"           |
|      | b) | <i>vēsān</i> | "ours (plural)" | <i>vēsān.vēsān</i> | "only ours"           |

- (44) a) kévə̀sə́nawūnē “ours (speakers + listeners + referents)”  
 kévə̀sə́nawūnē. Kévə̀sə́nawūnē “only ours”  
 b) vévənāwūnē “yours (listeners + referents)”  
 vévənāwūnē. Vévənāwūnē “only yours”

Possessive pronouns reduplicate to mean “ only” as shown above in (42) (43) and (44). In (43) and (44), we observe that possessive pronouns can be disyllabic and polysyllabic due to various formative processes that we will not discuss here because they are out of the scope of this work.

Apart from differences in meaning, whole-word reduplication is the same process in nouns and pronouns (personal and possessive). Consequently possessive pronouns can be analyzed in the same way as personal pronouns and nouns. To avoid repetition of one and the same process we refer the reader back to examples (41) and (19).

## CHAPTER THREE

### REDUPLICATION IN VERBS, ADJECTIVES AND ADVERBS

In this chapter we will show how reduplication in Lámnso? works in three categories of speech-verbs, adjectives and adverbs. The chapter is divided into three sections. Each section treats reduplication in a category, and where there are more than one form of reduplication in a category, the section is divided into subsections, with each subsection devoted to a particular type of reduplication in each category.

As already stated in chapter two, we will analyze reduplication as the addition of a phonemically bare affix which motivates the copying of a base' s melody. Our analysis, also, will still consist in answering the questions in (14).

#### 3.1 REDUPLICATION IN VERBS

At the level of morphology, Lámnso? verb stems reduplicate to derive new lexical items as in (45) and (46) below, which represent respectively monosyllabic verbs and disyllabic verbs and their reduplicated forms. We did not find examples of polysyllabic verbs behaving as such in the language. Moreover, polysyllabic verbs are rare to find.

- |             |            |           |  |
|-------------|------------|-----------|--|
| (45) a) tít | “to stand” | tít.tít   | “to delay”                                   |
| b) shém     | “to drop”  | shém.shém | “to drop simultaneously<br>and continuously” |

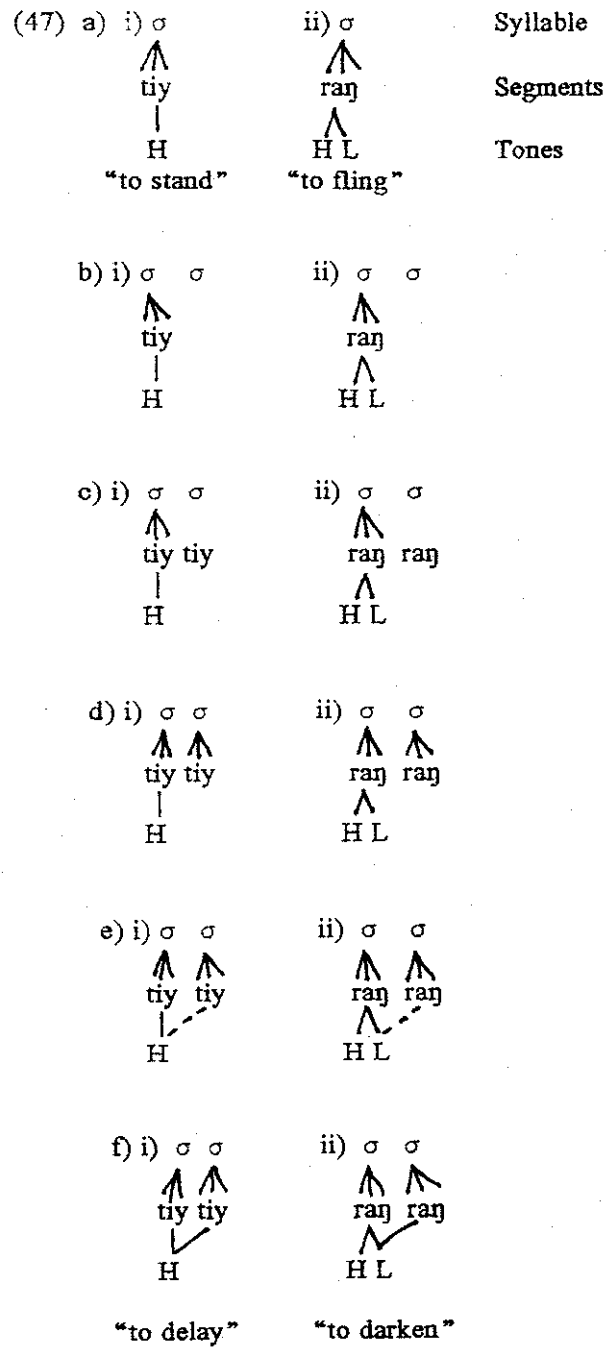
- c) kár "to stroll"      kár.kár "to stroll simultaneously and  
continuously (of many people)"  
d) kâŋ "to claim"      kâŋ.kâŋ "to struggle"  
e) râŋ "to fling"      râŋ.râŋ "to darken"  
f) sîŋ "to threaten"      sîŋ.sîŋ "to hesitate"

- (46) a) yâŋ-rí "to desire"      yânyâŋ "to worry"  
b) bvôv-rí "to swindle"      bvôbvôv "to wink"  
c) mêŋ-tì "to aim well,  
or to threaten"      mêŋmêŋ "to hesitate"

Reduplication may also show a type of plurality and continuity as in (45 b and c), but what is important here, is that the reduplicated item has a lexical status of its own.

We will begin our analysis with monosyllabic verbs(45), which are at the same time the basic stems, or roots.

All along, we have analyzed reduplication as part of the normal affixation process (MARANTZ 1982). In chapter one (section 1.4.3.2) we did say that the structure of the verb is "stem plus suffix," that is, Lámnsoŋ verbs do not take prefixes (like nouns) but suffixes (GREBE 1984). Reduplication in verbs is therefore suffixation. The behaviour of tone in verb reduplications as in (47) below will go ahead to confirm that reduplication in verbs is suffixation. We will hence analyze the reduplicated forms in (45) as the suffixation of a mono-syllabic template. We give derivations for i) tíytíy "to delay" and râŋràŋ "to darken" below in (47), in order to illustrate the process of reduplication in monosyllabic verbs.



In the derivation in (47) above, in (a) we have the base verbs, then in  
 b) the syllable template is suffixed. In  
 c) the segmental melody of the stem is  
 copied to the right.

We maintain in (c) that only the segmental melody is copied, because if we copy the tone alongside the segments we will arrive at the wrong result for ii) rânṛân\* "to darken." In (d) the copied melody is associated with the syllable template from right to left

(MARANTZ,1982) McCARTHY and BROSELOW,1985). In (e) the tone of the base stem spreads to the toneless reduplicate. The tone process in (e), we will call it progressive tone spreading, that is,

Rule 3: Progressive Tone Spreading (PTS) rule: which says that a preceding tone spreads onto a following toneless mora, where the mora is the tone bearing unit.

The phenomenon of progressive tone spreading is not new in the Lámnsõ? verb. GREBE (1984) observes that the lexical suffix (suffix<sub>1</sub>) is underlyingly toneless, and therefore gets its surface tone in a similar way, from the verb-stem tone. (f) = Surface structures

Now we turn to the disyllabic verbs in (46). We observe that the suffixes present in the base verbs are absent in the reduplicated forms. The question we ask ourselves is "what happens to the suffix in the base word when reduplication takes place?"

In order to understand how the base suffix is discarded in the reduplicated form, we need to consider the verb structure which is  
 stem plus suffix<sub>1</sub>, plus suffix<sub>2</sub>

In chapter one we said suffix<sub>1</sub> is a lexical suffix because it derives elements that have to be included in the lexicon, while suffix<sub>2</sub> is a grammatical suffix<sub>2</sub> because it is assigned there by the grammar of the language. If we observe the reduplicated forms in (45) and (46)

we realize that the reduplicate can be classified as a lexical suffix (suffix<sub>1</sub>), since it derives lexical categories of verbs.

To account for the reduplicated forms in (46) we have posited a suffix constraint in Lámnsō? which says that a verb stem can only accommodate one lexical suffix and/or one grammatical suffix at a time. This means that verbs with two lexical suffixes or two grammatical suffixes are prohibited in Lámnsō?. We can therefore have the structures

stem + suffix <sub>1</sub> , as in yí-kír	“to eat continuously”
stem + suffix <sub>2</sub> , as in yí-ín	“eaten”
stem + suffix <sub>1</sub> , suffix <sub>2</sub> , as in yí-kír-ín	“eaten continuously,”

but we cannot have

stem + suffix <sub>1</sub> + suffix <sub>1</sub> , or
stem + suffix <sub>2</sub> + suffix <sub>2</sub> , or
stem + suffix <sub>1</sub> + suffix <sub>1</sub> + suffix <sub>2</sub> , or
stem + suffix <sub>1</sub> + suffix <sub>2</sub> + suffix <sub>2</sub> ,

because of this constraint.

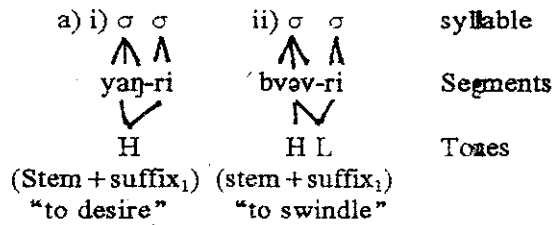
It is this suffix constraint that we will use to account for the absence of the suffix in the reduplicated forms in (46)

Below in (48) we will derive

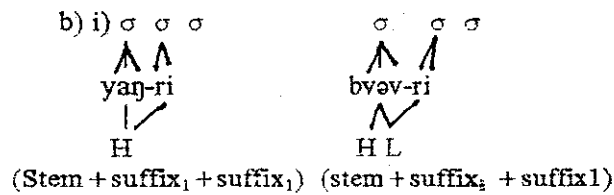
- i) yáŋ.yáŋ “to worry” and
- ii) bvəv.bvəv “to wink” in order to show how the suffix constraint works in Lámnsō?.



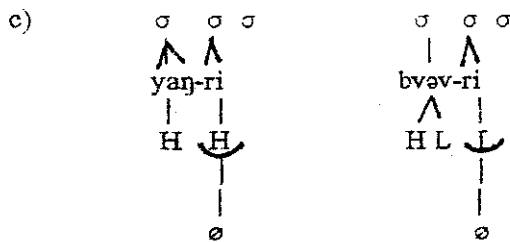
(48) We have the bases:



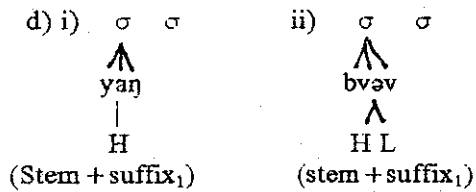
We suffix a mono-syllabic template (which is another suffix<sub>1</sub>)



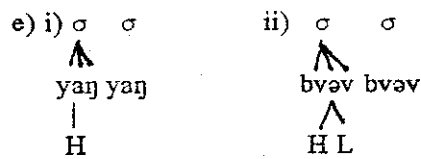
The suffix constraint prohibits the structures in (b) above, so the former suffix<sub>1</sub> (-ri), has to delete in order to make it possible for the stem to accommodate the latter suffix<sub>1</sub> (syllable template):



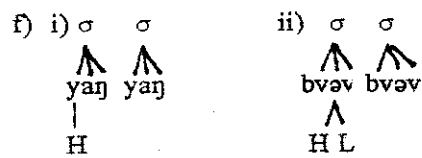
When the suffix constraint conditions the deletion of the former suffix<sub>1</sub> then we are left only with the stem and the latter suffix<sub>1</sub> - which is the syllable template



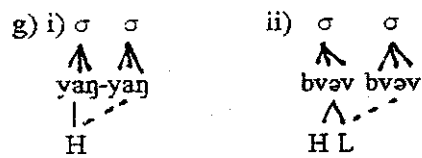
The stem melody is copied to the right



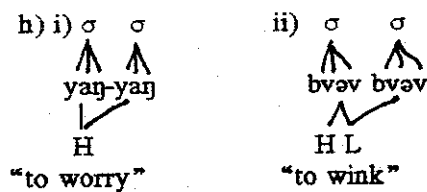
The copied melody maps to the template from right to left:



The base stem tone spreads to the toneless reduplicate:



We thus have the surface structures:



we conclude on reduplication in verbs by answering the analysis - questions in (14)

- A) Reduplication here means that a new lexical item is created from an existing one.
- B) The reduplicative template is one syllable
- C) The mono-syllabic template is suffixed
- D) The whole melody of the stem is copied
- E) The copied melody is mapped to the template from right to left
- F) No segmental phonological rules result from reduplication
- G) The tone is assigned to the reduplicate through the Progressive Tone Spreading (PTS) rule (rule 3):

### 3.2 REDUPLICATION IN ADJECTIVES

There are three types of reduplication processes going on in Lámnso? adjectives. These processes are entitled: whole-word reduplication, whole-stem reduplication and Partial-Stem reduplication

#### 3.2.1 Whole-Word Reduplication

Whole -word reduplication in adjectives is similar to that which occurs in nouns (section 21.1). Below in (49) (50) and (51) are, respectively, monosyllabic, disyllabic and polysyllabic examples of whole-word reduplication in adjectives:

- (49) a) j ûŋ "good"      jûŋ.jûŋ "very good"  
 b) j'ééy "different"      j'ééy.j'ééy "different (referring to many things)"

- c) dâ "tall"      dâ.dâ "quite tall (emphatic)"  
 d) kwèè "four"      kwèè.kwèè "in fours"  
 e) mbìy "first"      mbìy.mbìy "always first"
- (50) a) kì-yūŋ "good"      kì-jūŋ.kì-jūŋ "very good"  
 b) kì-bí "bad"      kì-bí.kì-bí "very bad"  
 c) à-bàà "two"      à-bàà.à-bàà "in pairs"  
 d) shì-shàr "little"      shì-shàr.shì-shàr "in bits (bit by bit)"  
 e) mòʔón "one"      mòʔón.mòʔón "in ones or one by one"
- (51) a) kì-távín "strong"      kì-távín.kì-távín "strong (emphatic)"  
 b) kì-térí "small"      kì-térí.kì-térí "small (referring to many things)"  
 c) à-mòʔón "one"      à-mòʔón.àmòʔón "one by one"  
 d) vì-kûʔùn "big"      vì-kûʔùn.vì-kûʔùn "big (many things)"  
 e) còvmòʔón ghvèm "eleven"      còvmòʔón ghvèm. còvmòʔón ghvèm  
     "in groups of eleven each"

When we look at the data above, the first thing we remark, is the presence of prefixes. It is as if we were dealing with nouns. Since these prefixes are the same as those that mark noun classes. In fact, the prefix is a type of concord or agreement relating the adjective to a noun class. This prefix fuses with the adjective in such a way that when an adjective is uttered in isolation, it is accompanied by the prefix. Nevertheless, whether or not the prefix is there, does not affect the meaning of the adjective for example bàà = à-bàà = vì-bàà = mè-bàà = two.

Lámnsōʔ adjectives use whole-word reduplication to do a lot of things, for example:

- to show intensity of a quality as in (49) *jũŋ.j ũŋ* "very good"  
 to express a regular activity as in (49) *mbiy.mbiy* "always first"  
 to show emphasis as in (49,c) *dâ.dâ* "quite tall"  
 to indicate a type of plurality as in (51) *kî-térí.kî-térí* "small,"  
 and to derive adverbial expressions as in (50) *à-bàà.àbàà* "in pairs"

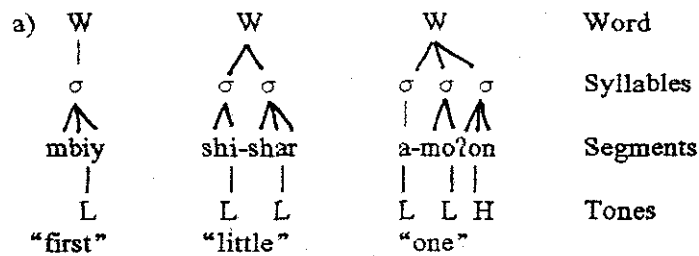
Whole-word reduplication in adjectives can be analyzed in the same way as in nouns (section 2.1.1), since adjectives do not only describe nouns, but tend to surface with (concord) noun class prefixes and reduplicate with these prefixes

Given that we had elaborated on whole-word reduplication in section 2.1.1 of this very chapter, we will, in brief, give derivations for

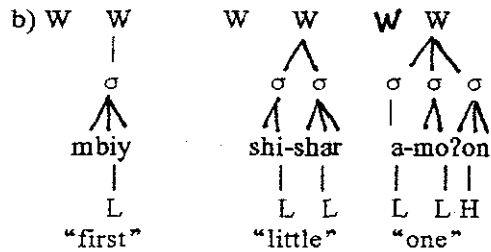
- i) *mbiy.mbiy* "always first"  
 ii) *shî-shâr.shî-shâr* "in bits"  
 iii) *à-mòʔón à-mòʔón* "one by one,"

in (52) below, to show how whole-word reduplication takes place in adjectives.

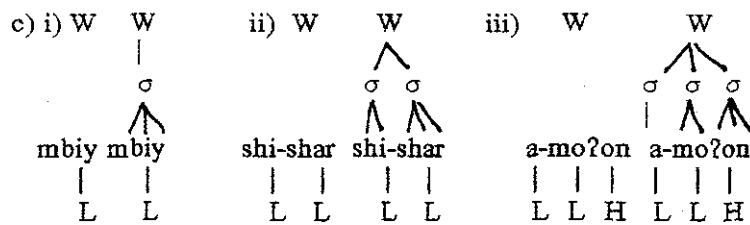
(52) We have the base adjectives



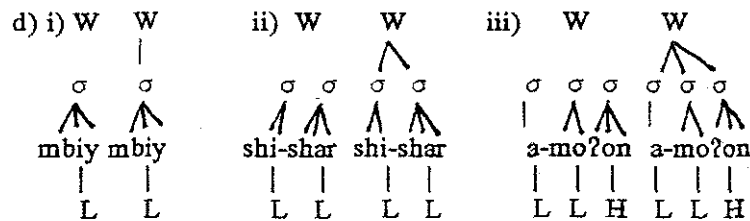
We prefix a word template



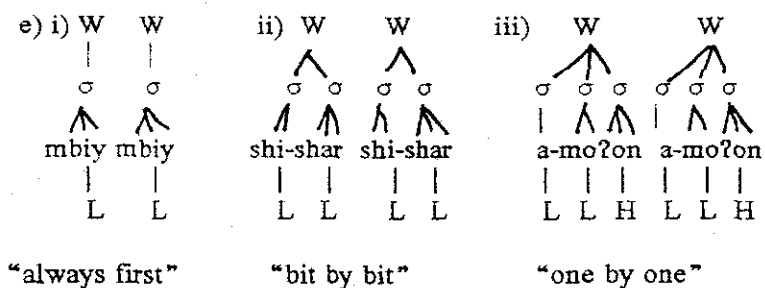
We copy the entire word melody to the left (Tones are copied alongside the segments; tones are always copied in Lámnso? whole-word reduplication)



The copied melody undergoes automatic syllabification (after the base)



Then the syllable nodes map to the word template from left to right



### 3.2.2 Whole-Stem Reduplication

Just as in nouns (section 2.1.2) and in verbs (section 3.1) whole-stem reduplication in adjectives is undergone by monosyllabic stems. (53) below shows examples of whole-stem reduplication in adjectives

- (53) a) jééy “different”    jééyjééy “difference”  
 b) réŋ “right”    réŋréŋ “same”  
 c) cér “fast”    cércér “faster”  
 d) tsóm “short”    kî-tsóm-tsóm “quite short”  
 e) wán “little”    shì-wánwán “quite short (and fat)”  
 f) láy “minute/hidden”    shì-láy-láy “very minute”

Whole-stem reduplication in adjectives has diverse functions.

A monosyllabic adjective-stem reduplicates wholly to derive a noun as in (53 a)

jééy “different”    jééy.jééy    “difference”  
 adjective ..... > noun

It may reduplicate just to derive another adjective as in (53 b)

rɛŋ “right” ....> rɛŋ.rɛŋ “same”

It may also reduplicate to show the comparative as in (53 c)

cér .....> cércér  
 “fast” “faster”

Sometimes it reduplicates to indicate intensity for example

tsám .....> (kì) tsám.tsám  
 “short” “quite short”

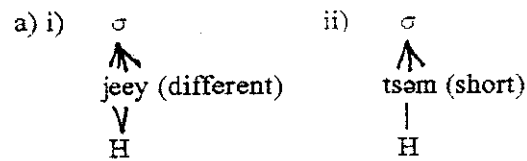
Whole-stem reduplication in adjectives is similar to whole-stem reduplication in nouns (section 2.1.2)

The derivations of i) jéey.jéey “difference” and

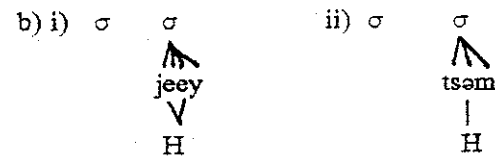
ii) kì-tsám.tsám “quite short” below in (54)

illustrates whole-stem reduplication in adjectives

(54) The base stems are:



A syllable template is prefixed.

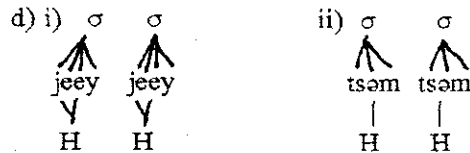


The base melody (tone and segments) is copied to the left

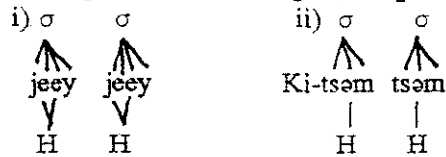




Mapping of the copied melody to the syllable template is done from left to right.



Optional                      prefixation takes place to give



“difference”

“quite short”

### 3.2.3 Partial-Stem Reduplication

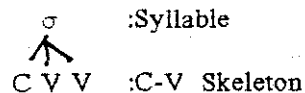
Adjective stems in Lámnsō? reduplicate partially to indicate intensity of the quality. The paradigms in (55) and (56) below include, respectively, monosyllabic and disyllabic examples of adjectives and their partially reduplicated forms.

The first column contains the bases, the second column contains the reduplicated forms which means “very X” where X is the corresponding base; the third column is the gloss.

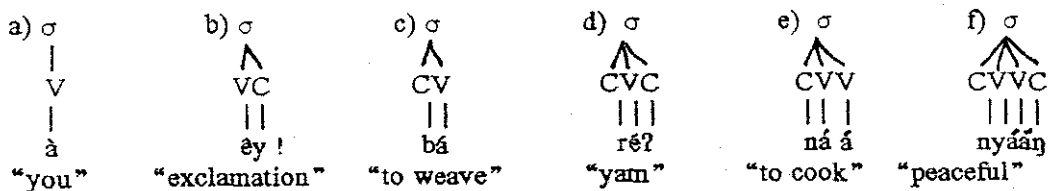
(55)	a) bí	bíbí	bad
	b) wán	wááwán	small
	c) wíy	wííwíy	big
	d) mà	máámà	large
	e) mbìy	mbíímbìy	first
	f) dzèṁ	dzééèdzèṁ	all
	g) shàr	sháàshàr	little
	h) dâ	dáàdâ	tall
	i) jûṅ	júùjûṅ	good

- (56) a) *tér-í*      *téétér-í*      small  
 b) *táv-ín*      *táátáv-ín*      strong  
 c) *à-nén*      *à-néénén*      plenty  
 d) *fō-tèr*      *fō-téètèr*      easy  
 e) *kú?-ùn*      *kúúkú?ùn*      big

We observe in (55) and (56) that partial-stem reduplication in adjectives involves the copying of the initial CV of the stem, just like in nouns (section 2.1.3) but unlike in nouns the copied V is lengthened. In (56) a, b and e, the suffixes constitute part of the stems because we cannot utter the stems in isolation without them. But the prefixes in (56) c and d are optional and we assume here that they can only attach after reduplication has taken place. We have posited the reduplicative template to be one syllable having an onset and two nuclei, that is



In order to account for the nature of the template in partial-stem reduplication in adjectives, we will introduce here the notion of syllable weight in Lámnso?. For a tone language like Lámnso?, a heavy syllable simply refers to that which contains two moras and a light syllable refers to that which contains one mora (HYMAN 1985). We have seen in chapter one (section 1.4.3.1) that the Lámnso? syllable has six forms



Given that syllable codas are not moraic in Lámnsoʔ, and following the definitions of light and heavy syllables above, we will group Lámnsoʔ syllables following weight thus:

light syllables: V, VC, CV, CVC,

heavy syllables: CVV, CVVC

That is, four forms of light syllables and two forms of heavy syllables. We notice, therefore, that the difference between the reduplicative template in partial-stem reduplication in adjectives and that in nouns (section 2.1.3), is that the template is a heavy syllable in adjectives and a light syllable in nouns.

In section 2.1.3, we said that the reduplicative template is identical with the core syllable in major syntactic categories (Nouns, verbs, adjectives, adverbs) we will add here that it is a “light core-syllable.” Therefore, in adjectives the reduplicative template is equally a core syllable, but a “heavy core-syllable” we strongly feel that the templates in partial-stem reduplication in adjectives and nouns come from a common source (core syllable) because they have a common meaning - “very” as in:

- i) shì-ŋwà-ŋwàʔ “a very small book” (ŋwàʔ - book)
- ii) sháà.shàr “very little” (shàr -little)

Hence, we will analyze partial-stem reduplication in adjectives (as in (55) and (56)) to be the prefixation of a heavy core-syllable template to the adjective stem. Since the core syllable is one onset and one nucleus, it is but logical that a heavy - core syllable will just involve some vowel lengthening (Katamba 1989: 177) which yields one onset, two nuclei.

We give derivations in (57) below, for

i) bíbí                      ii) júùjúù and                      iii) táátávín

to illustrate the process of partial - stem reduplication in Lámnsõ? adjectives.

(57) The bases include:

a) i) $\sigma$	ii) $\sigma$	iii) $\sigma$ $\sigma$	Syllables
$\wedge$	$\wedge$	$\wedge$ $\wedge$	C-V Skeleton
CV	CVC	CVCVC	
			Segments
bi	ju ŋ	ta vi n	
	$\wedge$		Tones
H	HL	H H	
"bad"	"good"	"strong"	

The mono-syllabic template is prefixed:

b) i) $\sigma$ $\sigma$	ii) $\sigma$ $\sigma$	iii) $\sigma$ $\sigma$ $\sigma$
$\wedge$ $\wedge$	$\wedge$ $\wedge$	$\wedge$ $\wedge$ $\wedge$
CVV CV	CVV CVC	CVV CV CVC
bi	ju ŋ	ta vi n
	$\wedge$	
H	H L	H H

The whole stem melody is copied to the left (we suppress tone here, to explain later in the work)

c) i) $\sigma$ $\sigma$	ii) $\sigma$ $\sigma$	iii) $\sigma$ $\sigma$ $\sigma$
$\wedge$ $\wedge$	$\wedge$ $\wedge$	$\wedge$ $\wedge$ $\wedge$
CVV CV	CVV CVC	CVV CV CVC
bi bi	ju ŋ ju ŋ	ta vi n ta vi n



What makes partial-stem reduplication in adjectives a unique process is its iterativeness, that is, it is recursive, as in (58) below

- (58) a) wán "small"  
 b) wáá wán "very small"  
 c) wáá wáá' wán "very very small"  
 d) wáá wáá' wáá wán "very very very small"  
 etc.

This implies that once the reduplication process is completed at one stage, the reduplicated form serves as input to the next stage. For example, the reduplicated forms in (57g) can serve as the bases for the derivations in (59) below

(59) bases include:

- |                     |                   |                                  |
|---------------------|-------------------|----------------------------------|
| a) i)               | ii)               | iii)                             |
| $\sigma$ $\sigma$   | $\sigma$ $\sigma$ | $\sigma$ $\sigma$ $\sigma$       |
| $\wedge$ $\wedge$   | $\wedge$ $\wedge$ | $\wedge$ $\wedge$ $\wedge$       |
| CVVCV               | CVVCVC            | CVV CVCVC                        |
|                     |                   |                                  |
| bii bi              | juu juḡ           | taat avin                        |
| $\vee$ $\backslash$ |                   | $\vee$ $\backslash$ $\backslash$ |
| H H                 | H L L             | H H H                            |
| "very bad"          | "very good"       | "very strong"                    |

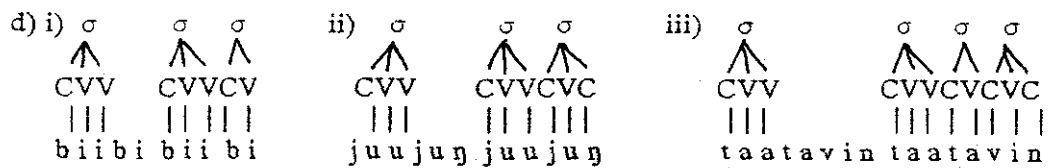
template is prefixed to the base:

- |                            |                            |                                     |
|----------------------------|----------------------------|-------------------------------------|
| b) i)                      | ii)                        | iii)                                |
| $\sigma$ $\sigma$ $\sigma$ | $\sigma$ $\sigma$ $\sigma$ | $\sigma$ $\sigma$ $\sigma$ $\sigma$ |
| $\wedge$ $\wedge$ $\wedge$ | $\wedge$ $\wedge$ $\wedge$ | $\wedge$ $\wedge$ $\wedge$ $\wedge$ |
| CVV CVVCV                  | CVV CVVCVC                 | CVV CVVCVCVC                        |
|                            |                            |                                     |
| bii bi                     | juu juḡ                    | taat avin                           |

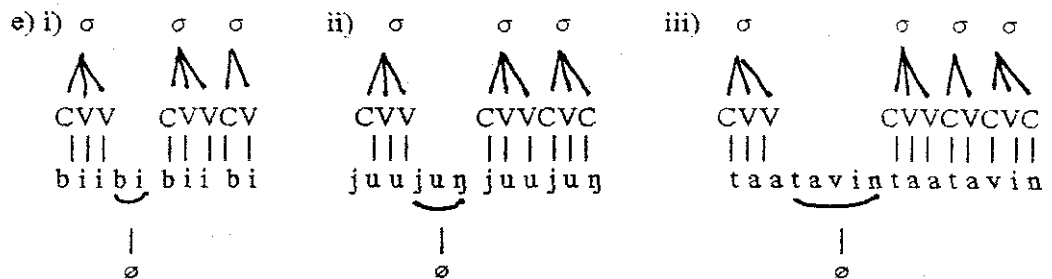
base melody is copied to the left



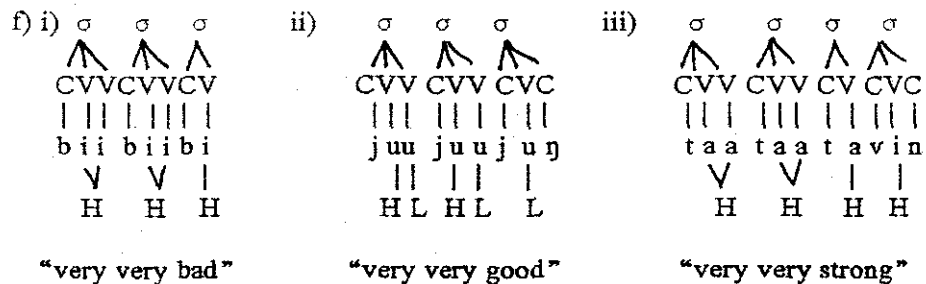
The copied melody maps to the template left to right



The unmapped material truncates



The surface structures remain (with grammatical tones)



As far as the behaviour of tone is concerned, partial -stem reduplication in adjectives is a very complex process. Each tone tends to have an independent and sometimes varied behaviour, that cannot be easily accounted for by phonological rules; this is exemplified in (60) for High tones and (61) , for Low tones and 62) for falling tones

	" X "	veryX	very veryX	Gloss
(60)	a) nèn	néénén	néénéénén	many/plenty
	b) téré	téétéri	téétéétéri	small
(61)	a) shàr	sháàshàr shàáshàr	sháàsháàshàr shàáshàáshàr sháàshààshàr shàáshàāshàr	little
	b) tèr	tèètèr	tèètèètèr tèètèètèr	easy
(62)	a) dā	dáàdā	dáàdāáàdā dāádāáàdā dāádāààdā	tall
	b) kú?ùn	kúúkú?ùn	kúúkúúkú?ùn	
	c)		kùúkúúkú?ùn kùúkùúkú?ùn	big

Following the complexity (and unpredictability) with which the tone behaves, especially as in (61) and (62), we will assume here that tone is assigned in partial-stem reduplication in adjectives, by the grammar of the language.

We are not in a position here to explain how this grammatical assignment of tone works, because it obviously demands: a general phonetic study of tone, a semantic study and possibly an etymological



study of words - these fields are not only out of the scope of the present study but we are constrained by the limited time given for this study.

### 3.3 REDUPLICATION IN ADVERBS

If we have to include a whole section on reduplication in adverbs, it is just for the sake of formality because reduplication in adverbs is very similar, if not identical to reduplication in adjectives. We have not mixed adjectives and adverbs in the preceding section (3.2) for fear of overcharging the section. Most, or all of the analyses used for reduplication in adjectives are relevant for reduplication in adverbs. Moreover, the concepts of adjective and adverb overlap in many Lámnso? words, that is, these words are used in some contexts as adjectives and in others as adverbs. Some of these words are included in (63) below

- (63) a) jééy      “different / differently ”  
 b) wèè      “slow / slowly”  
 c) cér      “quick / quickly”  
 d) nyáán      “peaceful / peacefully”  
 e) fōtèr      “easy / easily”  
 f) kî-bí      “bad / badly”  
 g) kî-távín      “strong / strongly or aloud”

As in adjectives, there are three types of reduplication in adverbs; whole-word reduplication; whole-stem reduplication, and Partial-Stem reduplication. If we proceed to analyze these reduplication types in adverbs separately, there will be a lot of repetition of the analysis in the preceding section (3.2), so we will just give examples of each type of

reduplication and then answer the analysis-questions in (14), or just give an illustrative derivation.

### 3.3.1 Whole-Word Reduplication

We include (64), (65) and (66) below, monosyllabic, disyllabic and polysyllabic examples respectively.

- (64) a) jééy “differently” jééy. Jééy “differently”  
 (referring to more than one thing)  
 b) wèè “slowly” wèè. Wèè “very slowly”  
 c) shíí “anxiously” shíí. shíí “very anxiously”  
 d) nyáán “peacefully” nyáán. Nyáán “very peacefully”  
 e) cá? “only” cá?. cá? “only (emphatic)”
- (65) a) yōōní “yesterday” yōōní.yōōní “just yesterday”  
 b) fōtèr “easily” fōtèr. fōtèr “very easily”  
 c) kì-bí “badly” kì-bí .kì-bí “very badly”  
 d) kì-jún “well” kì-jún .kì-jún “very well”
- (66) a) kì-jàvndzē “in the morning” kì-jàvndzē. kì-jàvndzē  
 “very early in the morning”  
 b) kì-távín “loudly” kì-távín. kì-távín  
 “very loudly”  
 c) kì-bvəəshí “tomorrow” kì-bvəəshí. kì-bvəəshí  
 “in the nearest future”

From the data in (64) (65) and (66) above, we proceed to answer the analysis questions in (14):

A) Whole- word reduplication in adverbs has many meanings: it may mean some plurality, as in (64a) or intensity as in (64b,c and d), or emphasis as in (64e)

B) The reduplicative template is a word, which may be monosyllabic (64), disyllabic (65) or polysyllabic (66)

C) The word template is prefixed (following from nouns and adjectives)

D) The whole-melody of the word is copied to the left

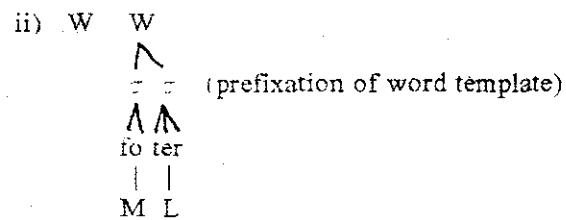
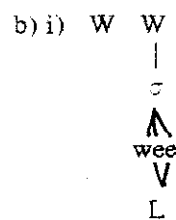
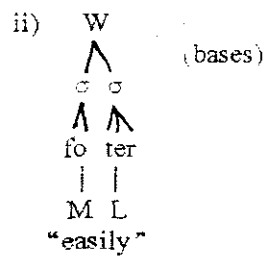
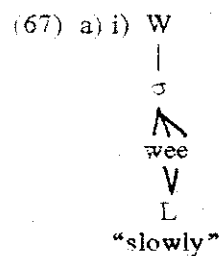
E) The direction of melody mapping is from left to right

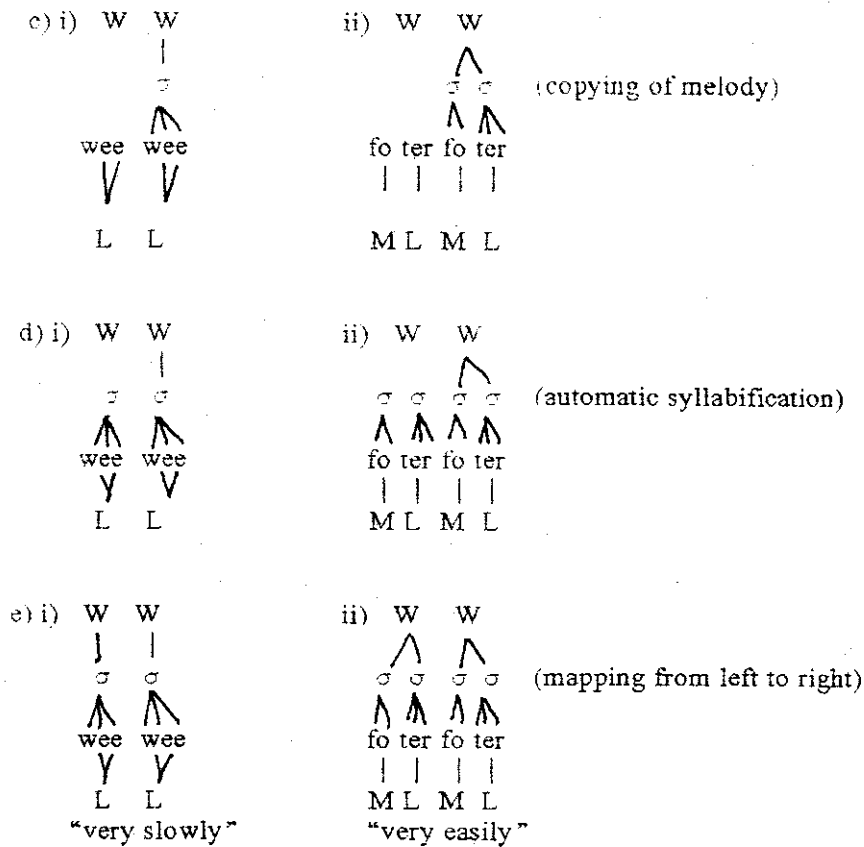
F) No phonological rules result from whole-word reduplication in adverbs.

G) The tone is copied alongside the segments

We will give derivations of i) wèè.wèè "very slowly" and

ii) fōtèr.fōtèr "very easily" in (67) below, to illustrate the above answers





### 3.3.2 Whole-Stem Reduplication

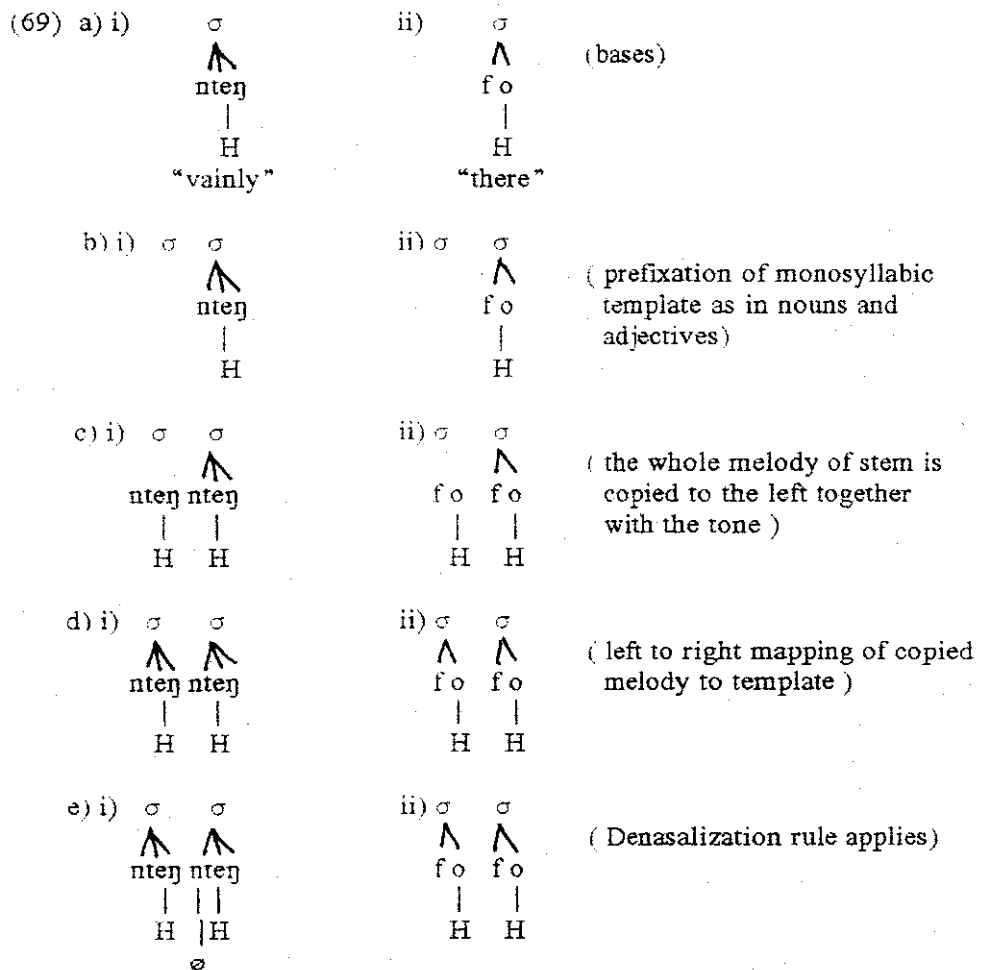
Examples in (68) below.

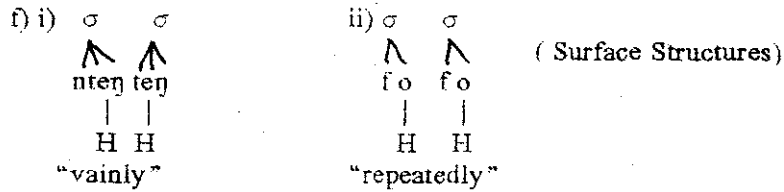
- |         |       |           |            |                     |
|---------|-------|-----------|------------|---------------------|
| (68) a) | lán   | "today"   | lán.lán    | "recently"          |
| b)      | lèn   | "now"     | lèn.lèn    | "soon"              |
| c)      | bám   | "behind"  | bám.bám    | "secretly"          |
| d)      | nténj | "vainly"  | nténj.ténj | "vainly (emphatic)" |
| e)      | cér   | "quickly" | cércér     | "very quickly"      |
| f)      | fó    | "there"   | fófó       | "repeatedly"        |

Whole-stem reduplication is mainly derivational in that new adverbs with different meanings are derived from existing ones. Nevertheless, there are still cases of inflection where more is added to the existing meaning in terms of intensity or emphasis. (The cases of (68d and e) above. We will give derivations for

i) nténténj "vainly"

ii) fófó "repeatedly" below in (69)





### 3.3.3 Partial-Stem Reduplication

Examples below in (70). Column one stands for "X"

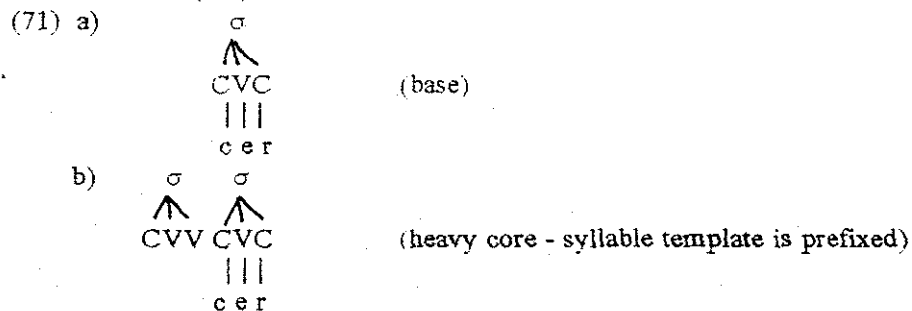
Column two means "very X",

Column three means "very very X" "Where

X is the base adverb, column four is the gloss

- (70) a) cér céécér céécéécér quickly  
 b) mbiy mbiímbiy mbiímbiímbiy ahead  
 c) bí bíbí bíbíbí badly  
 d) júŋ júùjùŋ [júùjúùjùŋ] well  
 [júùjúùjùŋ]  
 e) távín táátávín táátáátávín loudly

This type of reduplication as in (70) takes place only in adjectives and adverbs. We will give a derivation of céécéécér "very very quickly" "below" in (71)



- c)  $\begin{array}{cc} \sigma & \sigma \\ \wedge & \wedge \\ CVV & CVC \\ ||| & ||| \\ cer & cer \end{array}$  (whole - stem melody is copied to the left)
- d)  $\begin{array}{cc} \sigma & \sigma \\ \wedge & \wedge \\ CVV & CVC \\ || & ||| \\ cer & cer \end{array}$  (left to right mapping of copied melody to the template)
- e)  $\begin{array}{cc} \sigma & \sigma \\ \wedge & \wedge \\ CVV & CVC \\ || & ||| \\ cer & cer \end{array}$  (associated template [syllabic] segment spreads to the floating template V)
- f)  $\begin{array}{cc} \sigma & \sigma \\ \wedge & \wedge \\ CVV & CVC \\ ||| & ||| \\ ceer & cer \end{array}$  (unattached segment(s) are truncated)
- g)  $\begin{array}{cc} \sigma & \sigma \\ \wedge & \wedge \\ CVV & CVC \\ ||| & ||| \\ ceer & cer \\ \vee & | \\ H & H \end{array}$  (Surface Structure where grammar assigns the tone)  
"very quickly"

Because Partial- Stem reduplication is iterative the reduplicated structure becomes the new base)

- h)  $\begin{array}{ccc} \sigma & \sigma & \sigma \\ \wedge & \wedge & \wedge \\ CVV & CVV & CVC \\ ||| & ||| & ||| \\ ceer & ceer & cer \end{array}$  (template is prefixed to the new base)





## CHAPTER FOUR

### *OTHER FORMS OF REDUPLICATION and GENERAL CONCLUSION*

This chapter is meant to be a concluding chapter, but we cannot conclude without alluding to the fact that reduplication in Lámnsō? is vast and varied, and sometimes very confusing. In the preceding chapters (chapters 2 and 3) we have talked about reduplication in nouns, pronouns, verbs, adjectives and adverbs; indeed, the forms of reduplication processes described in chapters two and three are what we can call "normal" reduplication processes in Lámnsō?. "Normal," because these processes are very frequently used in the language and it is easy to identify the reduplicating base and its independent meaning. This chapter, as indicated by the title, is divided into two main sections: Other forms of reduplications; and General Conclusion. In section one dealing with other forms of reduplications, we will explore, in a sketchy manner, what we have called here ideophonic reduplications, pseudo-reduplications and syntactic reduplications. Section two comprises the General conclusion on reduplication in Lámnsō?: it recapitulates the types of reduplicative processes in Lámnsō?, their functions, the relationship between these processes, and the phonological and tonal processes resulting from Lámnsō? reduplication. Section one of this chapter - other forms of reduplication gives us a claim to completeness in this work, since all forms of reduplication in the language have been treated, if not mentioned.

#### **4.1 OTHER FORMS OF REDUPLICATIONS**

##### **4.1.1 Ideophonic Reduplications**

An ideophone can be defined as a "vivid representation of an idea in sound" (MUTAKA 1995:240).

The word "ideophonic reduplications" is used in this work to refer to those reduplications in which we find a lot of difficulty in separating the reduplicate from the reduplicating morpheme, because what seems to be the reduplicating morpheme or base has not got a clear independent meaning. In fact, the base

is an idea captured in sounds and there seems to be no consensus amongst the native speakers about the nature of the idea: consequently, it is as if the word can only have meaning in its reduplicated form.

YIWOLA (1989), while treating reduplication in Yoruba with respect to the status of the ideophone, proposed that ideophones be made an independent lexical category with the same rank as nouns, verbs, adjectives and adverbs. Examples of ideophonic reduplications in Lámsò? are included below in (72) and (73)

- (72)
- |    |           |  |
|----|-----------|--|
| a) | lâlà?     | “butterfly”                            |
| b) | lálán     | “net”                                  |
| c) | lálàn     | “flat intestine”                       |
| d) | bábár     | “pneumonia”                            |
| e) | tútú?     | “football, or a type of swollen fruit” |
| f) | nyâ.nyày  | “plenty or to tickle”                  |
| g) | kì-tó.tór | “tube of pen or pen container”         |
| h) | kì-kókór  | “hard part”                            |

- (73)
- |    |                   |              |
|----|-------------------|--------------|
| a) | gwàgwá            | “duck”       |
| b) | ṅkónkón           | “too much”   |
| c) | ntintìn           | “middle”     |
| d) | kì-lélé           | “a joke”     |
| e) | kwárá kwàrà       | “mat”        |
| f) | kwátá kwátá       | “completely” |
| g) | féyì féyì         | “really”     |
| h) | kì-màtàm kì-màtàm | “very large” |

When we observe the data in (72) above, we find that the type of reduplication process going on is similar to partial-stem reduplication in nouns (section 2.1.3) where initial CV of a stem is copied to the left of the stem as a prefix. If from this similarity we suppose that ideophonic reduplications behave like noun reduplications, we can conclude that the reduplication process in (73) involves whole-base reduplication which should be similar to that taking place in sections 2.1.1 and 2.1.2

Some of the surface structures in (2) like

- i) ηκόηκόη "too much"
- ii) ntìntìn "middle"

can be said to have undergone the Denasalization rule thus:

	UR / ntìntìn	ηκόηκόη /
	:	:
	:	:
DN rule	∅	∅
	PR [ntìntìn	ηκόηκόη]

#### 4.1.2 Pseudo-Reduplications

The word "pseudo" is an adjective (prefix) which means "false." Hence pseudo-reduplications is synonymous with false reduplications.

Pseudo-reduplications in Lámnsō? refer to those word forms which on the surface are reduplications but which, underlyingly, do not result from reduplicative processes. Rather, these word forms result from other morphological processes like affixation, borrowing, compounding or possession.

The term pseudo-reduplication is a cover term which gives us the opportunity to mention the irregular forms of reduplication in Lámnsō?, if we consider, as we have already done, that the forms in chapters two and three are the regular forms of reduplication in Lámnsō?.

##### 4.1.2.1 Affixation

Affixation can be defined as a process in morphology, whereby a morpheme-called an affix, and usually a bound morpheme, is added to another morpheme-which is more often a free morpheme (and can be a root, a stem or even a

word). When the bound morpheme is added word initially, it is a prefix, when it is added word medially, it is an infix, and when it is added word finally it is a suffix. Some affixes in Lámnso? are similar phonemically to certain stems to which they attach, not because reduplication has taken place, but because of coincidence or an historical accident.

Such affixations are included in example (74) below

(74)	Prefix	Stem(root)	Suffix
a)	kì-	kím	"crab"
b)	kì-	kív	-ír "cub of corn"
c)	shì-	shív	"a small quantity of medicine"
d)		méèm	-è "to rest"
e)		yíy	-í "to yawn"
f)		síy	-sì "to arrange"

The similarity between the affixes and stems makes it obvious to take the surface forms in (74), for reduplications. But when we consider that these forms result from the addition of the prefixes *kì-* and *shì-* to the stems, as in 74 (a,b and c); and from the addition of the suffixes *-i*

and *-si* to the stems, as in 74 (d,e and f) we can only say that these are pseudo-reduplications because they are not a consequence of reduplicative processes.

In the preceding paragraph, we have only mentioned two suffixes *-i* and *-si*, while in fact we have three of them *-e*, *-i* and *-si* in example (74) above. This can be justified by the fact that the suffix *-e* in (74d) is derived from the underlying suffix *-i* by rule.

This rule we have called rule 4: Vowel Lowering (VL) rule:

[+syllabic] ....> [-high] / [+nasal] -  
 [+high ] [-low]

The rule says that a [high] vowel becomes one step lower when it follows a [+nasal] consonant.

Thus the addition of the suffixes */-i/*, */-ir/* and */-in/* gives respectively [-e], [-er] and

[-en] in the surface structures in (75) below, due to the vowel lowering rule above.

- (75)
- |    |          |                        |
|----|----------|------------------------|
| a) | méèm -è  | “to rest”              |
| b) | néèm -è  | “sleeping/ lying down” |
| c) | són -ér  | “to blacken”           |
| d) | bôn -èr  | “to make good”         |
| e) | bém -ér  | “to frighten”          |
| f) | nyèŋ -èn | “smashed”              |
| g) | féŋ -é   | “flown”                |

We want to remark here that this vowel lowering rule exerts a considerable effect on the production of English Speech by Lámnsō? native speakers as they tend to lower /i/ to /e/ and /u/ to /o/ in their pronunciation as in (76) below

(76)

	R P	CamE	Gloss
a)	/mit/	/met/	meat
b)	/mi/	/me:/	me
c)	/minit/	/menet/	minute
d)	/njus/	/jos/	news
e)	/mud/	/mo:d/	mood

In (76) above, RP stands for Received Pronunciation which is purported to be the standard pronunciation of English. CamE stands for Cameroon English which represents the pronunciation of English by Lámnsō? native speakers.

#### 4.1.2.2 Borrowings

Borrowings are words adopted from other languages that the target language is in contact with (MUTAKA 1995, 231). These borrowings are very often used to designate new phenomena.

The “mispronunciation” or localization of the phonological realizations of certain borrowed words has yielded reduplicative structures in Lámnsō? as in (77) below

Localization or “mispronunciation” here refers to the tendency where target speakers tend to adapt the borrowed words or loanwords to the sound structure of their language. The target speaker is the borrower of the word

	Borrowing	Gloss	Source
(77)	a) sásár / sísar	scissors	English
	b) pòpó	pawpaw	English
	c) cícà (cíà)	teacher	English
	d) nánár	pineapple (ananas)	French

The words in (77) above can be classified as pseudo-reduplications because they do not result from Lámnso? reduplicative processes.

However, the words behave like partial reduplication in nouns (section 2.1.3) in that the first CV is prefixed to a pseudo base as in sa.sar (scissors) and na.nar (pineapple) where we can consider “sar” and “nar” respectively to be the bases.

#### 4.1.2.3 Compounding

A compound word is a word composed of two or more lexical items - free morphemes.

Compounding therefore refers to the morphological process whereby two or more lexical items combine to form another lexical item. Some of the surface reduplications in Lámnso?, as in example (78) below, result from the process of compounding

- (78)
- a) sê?sê?                    “trouble maker”  
(sê? - to find fault, sê? - trouble)
  - b) kâm kâm                “stingy person”  
(kâm - to be stingy, kâm-stinginess)
  - c) nyòmnyôm            “an insect, or something which is sweet”  
(nyôm - to be sweet, nyôm - sweetness)
  - d) fân fân                “coward”  
(fân - to fear, fân - fear)



The words possess themselves thus:

- b) i)  $\begin{array}{cc} \text{HL} & \text{L HL} \\ \vee & \vee \\ \text{wan} & \text{wan} \end{array}$       ii)  $\begin{array}{cc} \text{H} & \text{L H} \\ | & | \\ \text{won} & \text{won} \end{array}$

The low floating tone causes downstep on the following tones

- c) i)  $\begin{array}{cc} \text{HL} & \downarrow\text{HL} \\ \vee & \vee \\ \text{wan} & \text{wan} \end{array}$       ii)  $\begin{array}{cc} \text{H} & \downarrow\text{H} \\ | & | \\ \text{won} & \text{won} \end{array}$

H L contour is downstepped to L and H to M

- d) i)  $\begin{array}{cc} \text{HL} & \text{L} \\ \vee & | \\ \text{wan} & \text{wan} \\ \text{"grand child"} \end{array}$       ii)  $\begin{array}{cc} \text{H} & \text{M} \\ | & | \\ \text{won} & \text{won} \\ \text{"grand children"} \end{array}$

GREBE (1984, 90) expressed this downstepping using the following formulas (which he called rules)

- a)  $L + \text{HL} = L$   
b)  $L + \text{H} = M$

meaning that; (a) a floating low tone merges with a following HL contour to produce a low tone and (b) a floating low tone merges with a H tone to produce a mid tone.

We have the words

- (81) a) i)  $\begin{array}{cc} \text{LH} & \\ || & \\ \text{baa} & \text{"father"} \end{array}$       ii)  $\begin{array}{cc} \text{LH} & \\ || & \\ \text{mami} & \text{"mother"} \end{array}$

The words possess themselves:

- b) i)  $\begin{array}{cc} \text{LHLLH} & \\ || & || \\ \text{baa} & \text{baa} \end{array}$       ii)  $\begin{array}{cc} \text{L HLL H} & \\ | & | & | & | \\ \text{mamimami} & \end{array}$



The floating low tone in (b) above cannot downstep the following tone any further since it is already a low tone, and a low tone may not go lower than low except that it falls in final position. But the floating low tone seems to be determined to make its presence felt, instead of just fusing with the following low tone, it rather docks on the preceding mora as in (c) below, producing a HL contour

L H L L H         (c) i) baa baa "grand father"	L H L L H         ii) mami mami (tone docking) "grand mother"
--	--

The point we want to make here, in the above derivations (80) and (81), is that some words that are reduplications in Lámnsõ? are in fact resulting from possessive processes, and sometimes the tones of the words can help us to determine their source - possession.

#### 4.1.3 Syntactic Reduplications

It is true that this study is a morphophonological study, but we need to make mention of other reduplications existing in the language, and which we have not analyzed in any detail, because they do not fall within our domain of study. So the inclusion of syntactic reduplications here is merely for information, and we leave the task of the description of the process involved in this form of reduplication, to syntacticians.

Syntactic reduplications refer simply to those reduplications which can be analyzed at the level of syntax, that is, at the level of sentences, and not words.

Most syntactic reduplications in Lámnsõ? fall under the category of phrases. "A phrase is a group of related words which are part of a sentence (WARRINER and MERSAND and GRIFFITH (1963))

There are two types of syntactic reduplications in Lámnsõ?: Pronoun phrases and verb phrases.

#### 4.1.3.1 Pronoun Phrases

A pronoun phrase is a pronoun of more than one word. Pronoun phrases in Lámnso? which are syntactic reduplications are included in (82) below

- (82) a) mó mò "I, myself" (mō = me)  
 b) wó wò "you, yourself" (wò = you)  
 c) wún wūn "he/she, himself / herself" (wūn = him/her)  
 d) vén vĕn "you, yourselves" (vĕn = you (plural))

These pronoun phrases, very often, occur sentence initially.

#### 4.1.3.2 Verb Phrases

A verb phrase is a verb of more than one word, which obviously, forms part of a sentence. There are two types of verb phrases which are syntactic reduplications in Lámnso?. The first type of verb phrase contains a verb and noun as in (83) below

- (83) a) lîm lîm "to be doing some work"  
 (work work)  
 b) dû dû "to be going on a particular journey"  
 (go go)  
 c) wîy wîy "to come in a particular way"  
 (come come)  
 d) bán bán "to shine in a certain manner"  
 (shine shine)

A sample sentence would be:

Wù lîm lîm "he/she is doing some work"  
 (he/she work work)

The second type of verb phrase is composed of a verb and its past participle as in (84) below.

- (84) a) bá bāán "to just plait"  
 (plait plaited)  
 b) fɛŋ fɛŋén "to just fly"  
 c) béè bèèn "to just shelter"  
 (shelter sheltered)  
 d) báʔtí bāʔtín "to just gather"  
 (gather gathered)  
 e) yíkír yíkírín "to just eat"  
 (eat eaten)  
 f) bánén bānén "to just assemble"  
 (assemble assembled)

At one point in our analysis, we were tempted to analyse the reduplications in (84) as a morphological process, but the fact that the verb can be separated from its past participle as in the sentences in (85) below, shows that these reduplications can only be analyzed at the level of the sentence (syntax)

- (85) a) wù bá kítú bāán "He/she is just plaiting the hair"  
 (He/she plait head plaited)  
 b) wù béè wúú béèn "He/she is just sheltering from rain"  
 (He/she shelter rain sheltered)  
 c) shùý bàn lán bānén kishíy kífúr  
 (sun shone today shone day full)  
 "The sun shone today the whole day"  
 d) wù dzóó nāà vífá vē yī nāán "He is still cooking food"  
 (He/she still cook things-of-eat cooked)  
 e) shínón shín shí yī fɛŋ ghán sì dzəm fɛŋén  
 (bird this it do fly time all flown)  
 "This bird always flies (all the time)"

Reduplication analyzable at the level of the word (morphology) would not undergo such separation as in the sentences in (85) above.

## 4.2 GENERAL CONCLUSION

As a general conclusion on reduplication in Lámnsō?, we can say that Lámnsō? is very rich in reduplications. There are four forms of regular reduplicative processes in the language (where "regular" stands for those reduplications resulting from the affixation of a skeletal morpheme).

These processes include: whole-word reduplication which takes place in nouns - sá?.sá? "full of /like fibre" (sá? = fibre), pronouns - wūn.wūn "by himself/herself" (wūn = him/her), adjectives - jééy.jééy "different (of many things)" (jééy = different), and adverbs - shíí.shíí "very anxiously" (shíí = anxiously); whole-stem reduplication which occurs in nouns - kî-sá?.sá? "bamboo stump", verbs - kâṅkâṅ "to worry" (kâṅ = to claim), adjectives - jééy.jééy "difference", and adverbs - lèn.lèn "soon" (lèn = now); partial-stem reduplication in nouns, where initial CV of stem is prefixed to the stem for example: shî-sá?.sá? "a very small fibre"; and partial-stem reduplication in adjectives and adverbs where initial CVV of stem is prefixed to the stem, for example táátávin "very strong/strongly" (távin = strong/strongly). Reduplications (irregular reduplications) also result from other morphological processes like possession, compounding, borrowing and (non-reduplicative) affixation.

Reduplication can function derivationally, like whole-stem reduplication which results in the creation of new lexical items from existing ones for example géègéè "fifth day of the week" (géè = tiredness). It can function inflectionally like whole-word reduplication - lám.lám "full of languages" (lám = language) partial-stem reduplication in nouns - shî-lálám "a very small language" and partial - stem reduplication in adjectives and adverbs - júùjùṅ "very good/well," which only result in the addition of more meaning to existing lexical items.

The reduplicative affixes or templates in Lámnsō? are not just any string of C-Vs, but they can be captured in terms of prosodic units; in whole-word reduplication, the template is a word, in whole-stem reduplication it is a syllable, in partial-stem reduplication in nouns it is a core syllable and in partial-stem reduplication, in adjectives and adverbs it is a heavy core-syllable.

The templates are prefixed in nouns, pronouns adjectives and adverbs, but suffixed in verbs

Whole-stem reduplication results in the Denasalization rule (rule1) where a prenasalized consonant denasalises when it follows a nasal. It has equally led us to develop the suffixation constraint in verbs (section 3.1) specifically, where a verb cannot accommodate two lexical suffixes.

In all of whole-word reduplication, the tone is always copied alongside the segments as in *bvêm sī.bvêm sī* "full of stomachs" (*bvêm sī* = stomachs)

In whole-stem reduplication tone is copied along with the segments in nouns, adjectives and adverbs, for example *lân.lân* "recently" (*lân* = today), but not copied in verbs where reduplicate stems obtain their surface tones through the Progressive Tone Spreading rule (rule3) as in

$$\begin{array}{c} \text{HL} \\ \swarrow \searrow \\ \text{V} \quad \text{V} \\ \text{kânkân} \end{array} \quad \text{"to worry"} \quad (\text{kânkân})$$

In partial-stem reduplication in nouns, the tone is not copied along with the segments, the reduplicate material gets its tone through the regressive tone spreading rule (rule2) as in

$$\begin{array}{c} \text{H L} \\ \swarrow \searrow \\ \text{shì-bvâbvâm} \end{array} \quad \text{"a very small stomach"}$$

In partial-stem reduplication in adjectives and adverbs the behaviour of tone is much more varied and complicated and can be explained more by a grammatical study than by phonological processes.

However, from simple observation we can bring out general tendencies: we could say that the tone is copied along with the segments, and a super high tone is associated with the second V to mark reduplication, as in the following data

- (86) a) *bíbí* "very bad" (*bí* = bad)  
 b) *néénén* "very plenty" (*néén* = plenty)  
 c) *bàábàm* "right behind" (*bàm* = behind)  
 d) *ròóròṅ* "right down" (*ròṅ* = down)  
 e) *yūúyūv* "right up" (*yūv* = up)  
 f) *mvě́mvě́m* "right inside" (*mvě́m* = inside)

The above assumption can account for all bases with high tones and most of the bases with low tones but it will not account for variations from the above data

- such as a) yūyūv "right up"  
 b) m̄v̄ē̄m̄v̄ē̄m̄ "right inside"

where mid tone bases can also obtain mid tone in the reduplicates;

Bases with HL contour tones obtain HL in the reduplicates and L in the bases as in

- a) dā "tall" dáàdà "very tall"  
 b) jūŋ "good" júùjùŋ "very good"

The peculiarity with partial-stem reduplication in adjectives and adverbs is that it is iterative, (unlike all other reduplications for example).

- wíy "much"  
 wíwíy "very much"  
 wíwíwíy "very very much"  
 wíwíwíwíy "very very very much" etc.

Finally, we note that reduplication cannot take place twice at the same level. Morphemes or items that have undergone stem-level reduplication can no longer undergo any form of stem reduplication, be it whole or partial; and words that have undergone whole-word reduplication can no longer undergo any form of reduplication, but stem-level reduplications can still undergo word-level reduplication as below

- a) sǎʔsǎʔ. sǎʔsǎʔ "full of bamboo stumps" (sǎʔsǎʔ = bamboo stumps)  
 b) shì-sǎsǎʔ. shì.sǎsǎʔ "full of /like a very small fibre"  
 (shì.sǎsǎʔ = a very small fibre)  
 c) júùjùŋ.júùjùŋ "very good (emphatic)" (júùjùŋ = very good)

## BIBLIOGRAPHY

1. Allerton, D.J. (1979) Essentials of Grammatical Theory: a Consensus view of Syntax and Morphology, Routledge and Kegan Paul, London, Boston and Henley.
2. Banboye, William (1980) A Guide to Lamnso? Orthography, Secrétariat Permanent de l'Enseignement Catholique, Yaounde.
3. Banyee, William (1992) Basic Lam Nso? Vocabulary, Bamenda.
4. Bible Society of Cameroon (1990) Sa?ka Nguy Wo Jun, Yaounde.
5. Bird, Steven (1996) Dschang Syllable Structure and Moraic Aspiration, Centre for Cognitive Science, University of Edinburgh. Research Paper EUCCS/RP-69.
6. Breton, Roland and Fotung Bikia (1991) Atlas Administratif des Langues Nationales du Cameroun, CERDOTOLA ACCT, CREA, ISH, MESIRES. *Handwritten: 8. 11-00-01*
7. Chem-Langhëë, B. and V.G. Fanso (1997) "Social categories, local politics and the uses of oral tradition in Nso? Cameroon" Colloque International, Université de Provence, Publications de l' Université de Provence.
8. Chomsky, Noam (1967) "Some general properties of phonological rules" in MAKKAL, V. (ed.) Phonological Theory: Evolution and Practice, Jupiter Press, Lake Bluff, Illinois.
9. Crystal, David (1986) A Dictionary of Linguistics and Phonetics, Oxford, Basil Blackwell.
10. Dieu, Michel and Patrick Renaud, eds. (1983) Situation linguistique en Afrique Centrale: Inventaire Préliminaire: le Cameroun., (ALCAM), Paris: ACCT, Yaounde: DGRST/CERDOTOLA.

11. Dzelambong, T. Yugun (1996) The Influence of Mother Tongues on English Language Usage in Cameroon: A Case Study of Lamnso?, M.A. Dissertation, University of Yaounde I.
  
12. French, K. Matsuda (1988) Insights into Tagalog: reduplication, infixation and stress from non linear phonology, Publication Number 84, SIL and the University of Texas at Arlington.
  
13. Goldsmith, John A. (1990) Autosegmental and Metrical Phonology, Cambridge, Basil Blackwell.
  
14. Grebe, Karl (1975) "Verb clusters of Lamnsok" in Grimes, E. Joseph (ed.) Network Grammars, SIL, University of Oklahoma, Norman, pp. 85-105.
  
15. Grebe, Karl (1975) "Verb Tone Patterns in Lamnso?" in Linguistics 149:15-23.
  
16. Grebe, Karl (1984) The domain of noun tone rules in Lamnso, M.A. Dissertation, University of Calgary.
  
17. Grebe, Karl (1986) How to Read and Write Lamso SIL- Yaounde.
  
18. Grebe, Karl (ed.) (1989) Metitivy: Fairy Tales volume 1, SIL-Yaounde
  
19. Grebe, Karl (ed.) (1989) Vimfër ve Wanyeeto: Anteatat Stories, Book 5 SIL Yaounde.
  
20. Hyman, Larry (1985) A Theory of Phonological Weight, Dordrecht, Foris.
  
21. Katamba, Francis (1989) An Introduction to Phonology, Longmans, London.
  
22. Kenstowicz, Michael (1994) Phonology in Generative Grammar, Oxford, Basil Blackwell.
  
23. Kenstowicz, Michael and Charles Kisseberth (1979) Generative Phonology: Description and Theory, Academic Press Inc., Harcourt Brace Javanovich Publishers.



24. Langacker (1973) Language and its structure: some fundamental linguistic concepts, University of California, Harcourt Brace Javanovich, New York.
25. Marantz, Alec (1982) "Re-reduplication" in Linguistic Inquiry 13:435-482. no center for se 1.26
26. Mutaka, M. Ngessimo (1994) "Tone assignment in Duala noun reduplication" Journal of West African Languages XXIV,2: 65-76.
27. Mutaka, M. Ngessimo and Pius Tamanji (1995) An Introduction to African Linguistics, Université Catholique d' Afrique Centrale/I.C.Y. and University of Yaounde I.
28. Mutaka, N. and Larry M. Hyman (1990) "Syllables and Morpheme Integrity in Kinande Reduplication" Phonology 7 : 7-119.
29. Ndjozeka, T. Célestine (1996) Population Growth and Health Care Units in Kumbo Sub-Division, M.A. Dissertation, University of Yaounde I.
30. Perrin, Robert (1990) The Beacon Handbook, Houghton Mifflin, Boston.
31. Spencer, Andrew (1991) Morphological Theory, Cambridge, Basil Blackwell.
32. Tadadjeu, Maurice. and Etienne Sadembouo (eds.) (1984) General Alphabet of Cameroon languages, PROPELCA Series Number 1.
33. Umenjoh, A. Florence (1997) Reduplication in Ngie, M.A. Dissertation University of Yaounde I.
34. Warriner, E. , J. Mersand, and F. Griffith (1963) English Grammar and Composition, Harcourt, Brace and World Inc., New York.
35. Yiwola, Awoyale (1989) "Reduplication and the Status of Ideophones in Yoruba" The Journal of West African Languages Volume XIX, 1: 15-34.