

# **A Phonological Sketch of Lamnso'**

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## 1. Introduction

The phonology of Lamnso' was first described in detail in Grebe and Grebe (1976), hereafter G&G (1976). That early work did not use the International Phonetic Alphabet (IPA). This present paper attempts for the most part to be a brief summary of that early work while using modern IPA symbols for all the phonetic data<sup>1</sup>. The present sketch attempts to summarize the Grebes' work by describing various phonological alternations in a series of charts with a bare minimum of prose explanation and almost no examples. The reader who wants more details or examples of these variations should examine the longer and more detailed version done by G&G (1976).

Lamnso' (literally "language of the Nso' people"), ISO language code 639-3: "lns" (also referred to as Lamnso, Nso, Nsaw or Banso), was believed to be spoken by about 100,000 speakers back in 1976 but is believed today to be spoken by some 250,000 or more. It is spoken mainly in the North West Region of Cameroon and is classified linguistically as: Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Wide Grassfields, Narrow Grassfields, Ring, East (Lewis, Simons & Fennig, 2015).

## 2. Morpheme Types

### 2.1 Roots

Lamnso' roots<sup>2</sup> consist of the following: (N<sup>3</sup>) C<sub>1</sub> (w<sup>4</sup>) V<sub>1</sub> (C<sub>2</sub>) (V<sub>2</sub>) (C<sub>3</sub>), i.e. an obligatory root-initial consonant, an optional labiovelar semivowel or a fricative, an obligatory vowel, and optional final consonants and vowels. A description of the various kinds of syllables found in these roots can be found in G&G (1976:8-13).

### 2.2 Affixes and Grammatical Words

Lamnso' prefixes (on nouns and verbs) and some grammatical words may, in addition to simple CV(C) syllables, have just a syllable nucleus consisting of either a vowel or a homorganic nasal consonant (symbolized as /N-/) or the unique syllabic bilabial nasal consonant /m̩/, a pronoun meaning "I".

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<sup>1</sup> The following changes were made from G&G's earlier phonetic symbols to the modern IPA: consonants dʒ, č, ʝ, ɣ, r and y to be symbolized dʒ, tʃ, dʒ, ɣ, r and j respectively, as well as vowels ɪ, ʊ and ʌ to become ɪ, u and ɜ respectively.

<sup>2</sup> The formula shown in this paper shows the possibilities for all kinds of Lamnso' roots, even though specific subsets of words can have just a part of this set: e.g. verbs would be limited to just C(w)V(C).

<sup>3</sup> See section 3.3 below for the treatment of homorganic "prenasalisation".

<sup>4</sup> See section 3.4 below for the treatment of "labialisation".

### 3. Consonants

#### 3.1 Underlying basic consonants

Lamnso' has 23 underlying basic consonants<sup>5</sup> (all except glottal stop can fill the C<sub>1</sub> position mentioned above), as shown in the following chart. (See the end of section 3.3 below for mention of the only word consisting of a syllabic nasal.)

		Labial	Coronal	Palatal	Velar	Labio-Velar	Glottal
Stops:	Voiceless		t		k	kp	ʔ
	Voiced	b	d		g	gb	
Affricates:	Voiced			tʃ			
	Voiceless			dʒ			
Fricatives:	Voiceless	f	s	ʃ			
	Voiced	v			ʝ		
Nasals:		m	n	ɲ	ŋ		
Flaps:			r				
Liquids:			l	j		w	

Note: Syllable-final consonants are limited to the phonemes /v, ʔ, m, n, ŋ, r and j/ (G&G 1976:9) and /s, ʃ and k/ in loan words.

#### 3.2 Consonant variation utterance-final

Two phonemes freely vary in utterance-final position, as below:

Underlying Consonant	Utterance Final	Normal
/v/	p~v	v
/r/	r~s	r

/kóv/    [kóv] ~ [kóp]    *forest*  
 /wír/    [wír] ~ [wís]    *person*

<sup>5</sup> Grebe's later work (Grebe 1984:17) lists 31 underlying consonants by also including five labialised "units" and three nasal "units" (which are handled differently here, by sections 3.4 and 3.3 respectively).

### 3.3 Prenasalisation

“Prenasalisation” is a term used by G&G (1976:18) to discuss nasal consonants that immediately precede another consonant at the beginning of a root syllable. Despite the fact that these nasal consonants carry pitch and might be syllabic, this paper treats them as initial root consonants<sup>6</sup> as their pitch is predictable based on the rest of the root tone and they are not noun class prefixes. From this point-of-view, specific homorganic<sup>7</sup> nasal consonants may precede certain consonants at the beginning of a root, as in the chart below:

Single Consonant	/Prenasal Cluster/	[Prenasal Cluster]
/b/	/Nb/	[mb]
/f/	/Nf/	[mpf] <sup>8</sup>
/t/	/Nt/	[nt]
/d/	/Nd/	[nd]
/s/	/Ns/	[nts] <sup>9</sup>
/ʃ/	/Nʃ/	[ntʃ] <sup>10</sup>
/tʃ/	/Ntʃ/	[ntʃ]
/dʒ/	/Ndʒ/	[ndʒ]
/k/	/Nk/	[ŋk]
/g/	/Ng/	[ŋg]
/gb/	/Ngb/	[ŋmgb]

In addition to these homorganic nasals, there is a unique syllabic nasal /ṁ/ (meaning “I”) that does not assimilate to the following consonant and functions as a word.

<sup>6</sup> Though G&G treat prenasalisation as a “feature of the nuclear syllable” (G&G:18), this paper treats this as a kind of consonant cluster because it is in contrast with non-prenasalised forms where it occurs.

<sup>7</sup> While G&G, for some reason, assert that the nasal elements of these prenasalised consonants assimilate “approximately” to the point of articulation of the following consonants, this paper takes the liberty of assuming that they in fact assimilate completely (or, at least, as completely as reported in other Grassfields languages).

<sup>8</sup> Grebe (1984:18) lists this output with the intervening [p], contrary to the earlier G&G (1976) view.

<sup>9</sup> Grebe (1984:18) lists this output with the intervening [t], contrary to the earlier G&G (1976) view. This is interesting in that the phonetic variant [ts] can then result from two underlying sources: an underlying /s/ after /N/ (as here) or an underlying /t/ before /ə/ (as in section 3.5 below).

<sup>10</sup> Though he neglects to mention the intervening [t] of this surface form in Grebe (1984:18), he does show it later in the same paper when listing examples (1984:30). The interesting result for this particular variant is that, because both /ʃ/ and /tʃ/ are full phonemes in Lamnso', the presence of the intervening [t] in /Nʃ/ makes it neutralise with the surface form of [ntʃ] which also results from /Ntʃ/.

### 3.4 Labialisation

In Lamnso', only six consonants may be followed by a /w/ before a vowel<sup>11</sup> (and then only when those consonants occur in the first syllable of the root), namely the following:

Underlying Consonant	Labial Cluster
/dʒ/	/dʒ <sup>w</sup> /
/ʃ/	/ʃ <sup>w</sup> /
/k/	/k <sup>w</sup> /
/g/	/g <sup>w</sup> /
/m/	/m <sup>w</sup> /
/ŋ/	/ŋ <sup>w</sup> /

### 3.5 Consonant variation before [ə]

Several underlying consonants have affricated phonetic variants before [ə] and have unmodified variants before all other vowels, as below:

Underlying Consonant	Before /ə/	Before other vowels
/b/	bv	b
/t/	ts <sup>12</sup>	t
/d/	dʒ <sup>13</sup>	d
	dz	
/k/	kf	k
/g/	gv	g
/ɣ/	ɣv	ɣ
/m/	ŋv <sup>14</sup>	m

<sup>11</sup> Though G&G treat labialisation as a “feature of the nuclear syllable” (G&G:19), this paper treats it as a kind of consonant cluster because it is in contrast with non-labialized forms where it occurs. Grebe (1984:17) only lists five of these six clusters, omitting the /mw/ option found in our chart.

<sup>12</sup> The phonetic variant [ts] can result from an underlying /t/ before /ə/ (as here) or from an underlying /s/ after /N/ (as in section 3.3 above).

<sup>13</sup> The /d/ phoneme has a highly unusual retroflexed variant when following a nasal consonant and before /ə/, a more regular alveolar affricate in other cases before /ə/, and a normal stop variant before all other vowels.

<sup>14</sup> Though G&G (1976:26,28) mislabeled this sound as a simple labio-velar nasal in their earliest work, it is clear from later works (e.g. Grebe 1982:2; Grebe 1984:17-18) that this should have been followed by a fricative [v] offglide.

### 3.6 Unique sounds in ideophones, interjections and loan words

In Lamnso', the two consonants [p<sup>h</sup>] and [h] only occur in ideophones, interjections or loan words, never occurring in more basic kinds of words.

### 3.7 Resulting phonetic consonant chart

Excluding the additional complexities of prenasalisation and labialisation, one finds the following basic phonetic consonants in Lamnso':

		BiL	L-D	Alv	A-P	Ret	Vel	Glott
Stops:	Voiceless	p						ʔ
	Aspirated	p <sup>h</sup>		t <sup>h</sup>			k <sup>h</sup>	
	Voiced	b		d			g	
Affricates:	Voiceless		pf	ts	tʃ		kf	
	Voiced		bv	dz	dʒ	dʒ	gv	
Fricatives:	Voiceless		f	s	ʃ			h
	Voiced		v				ɣ, ɣv	
Nasals:		m	ɱv	n	ɲ		ŋ	
Flaps:				r				
Liquids:		w		l	j			

BiL: Bilabial  
L-D: Labio-dental  
Alv: Alveolar

A-P: Alveopalatal  
Ret: Retroflex  
Vel: Velar

Glott: Glottal

## 4. Vowels

### 4.1 Underlying vowels

Lamnso' has six underlying vowels, as in the following chart:

Underlying Vowels	Front	Mid	Back
High	i	ə	u
Low	e <sup>15</sup>	a	o <sup>16</sup>

<sup>15</sup> I have chosen to label this phoneme /e/ instead of the /ɛ/ of G&G (1976:41-42, handwritten note) because it seems more natural to describe the allophonic process as a laxing from [e] to [ɛ] for the short form. Grebe's later work (1984:17) also symbolises the underlying six vowels as we have done here.

<sup>16</sup> Likewise, I have chosen /o/ instead of /ɔ/ for the same reason.

Each of these six underlying vowels can be modified by length in nuclear syllables (never in peripheral syllables), as in the following chart:

<b>Underlying Vowels</b>	<b>Short</b>	<b>Long</b>
/i/	i	i:
/e/	ɛ	e:
/ə/	ə	ə:
/a/	a	a:
/u/	u	u:
/o/	ɔ	o:

#### 4.2 Vowel variation before certain consonants

Three of the six Lamnso' vowels are slightly centralized before nasal consonants or glottal stop, as shown in the following chart:

<b>Underlying</b>	<b>Before nasals or glottal stop</b>	<b>Elsewhere</b>
/i/	ɪ	i
/a/	ɜ	a
/u/	ʊ	u

#### 4.3 Vowel variation when lengthened

Two of the six Lamnso' vowels are lowered when in their short lax form<sup>17</sup>, as below:

<b>Underlying</b>	<b>Short</b>	<b>Long</b>
/e/	ɛ	e:
/o/	ɔ	o:

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<sup>17</sup> This alternation was handwritten on the original G&G typed manuscript, presumably by one of the authors and perhaps at a later date.



#### 4.4 Resulting phonetic vowel chart

As a result of these variations, one finds the following phonetic vowels in Lamnso':

	Short Front	Long Front	Short Central	Long Central	Short Back	Long Back
Close	i	i:			u	u:
Near-close	ɪ				ʊ	
Mid		e:	ə	ə:		o:
Open-mid	ɛ		ɜ		ɔ	
Open			a	a:		

#### 5. Tone

Though G&G (1976:14) describe Lamnso' tone as a contrastive feature of nuclear syllables (with tones on peripheral syllables being predictable from those on nuclear syllables), the same analysis would today be described as root-level or even word-level tone. They went on to describe the eight contrastive tones (found on nouns in object position): three level tones (L, M, H), two rising tones (MH<sup>18</sup> and LH), and three falling tones (HM, HL and L-falling).

Later, Grebe went on to posit the relationship between these synchronic tone classes (classified as the three level tones and the HL glide, together with a floating lexical tone) and their probably historical antecedents (Grebe 1982:14), as below.

Historical Trisyllabic Pattern	Present Tone Patterns	Present Tone Class
H-H-H	HHḡ	H´
H-H-L	HHḡ	H`
L-H-H	LHHḡ	M´
L-H-L	LHLḡ	M`
L-L-H	LLHḡ	L´
L-L-L	LLLḡ	L`
H-L-L	HLLḡ	HL`
H-L-H	HLHḡ	HL´

<sup>18</sup> Though G&G (1976) call this a "high-rising" tone, it appears to be a mid-high rise in the tone frames they show.

For his most detailed and rigorous paper, Grebe (1984) did an MA thesis on noun tone patterns and their tone changes across an unusually broad range of phonological and grammatical constructions.

## 6. Elision

G&G (1976:6-7) mention three similar cases of elision in Lamnso', where certain initial or final consonants are elided in specific grammatical contexts, namely:

1. The initial /w/ of possessive pronouns is always elided following words that end in /v, m, n, ŋ/; likewise the initial /v/ of possessive pronouns following words that end in /r/.
2. The initial /w/ consonant of the relative introducer /wɔ/ is always elided following /m, n, ŋ, r/, and optionally elided after any other consonant except glottal stop.
3. The final /ŋ/ of the first noun in an associative noun phrase may be optionally deleted, changing the preceding vowel into a long vowel as it drops out.

## 7. Conclusion

This present sketch is a brief summary of the research results presented in G&G (1976), a paper written by Karl and Winnifred Grebe after only one year of research. If they had written a later paper on the phonology, before they both passed away, it would surely have included more details but would still have been built on the same framework summarized above. For this reason, the interested reader is referred to the G&G (1976) paper for more details and numerous examples of the features discussed in this sketch.

## 8. BIBLIOGRAPHY

- Grebe, Karl and Winnifred Grebe. 1976. A Phonology of the Nso Language. Yaoundé: SIL, ms. <http://www.silcam.org/folder030401/page.php>
- Grebe, Karl. 1982. Nouns, noun classes and tone in Lam Nso'. (first draft). Yaoundé: SIL.
- Grebe, Karl. 1984. The domain of noun tone rules in Lamnso'. M.A. thesis, University of Calgary.
- Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig (eds.). 2015. *Ethnologue: Languages of the World, Eighteenth edition*. Dallas, Texas: SIL International. Online version: <http://www.ethnologue.com>