

A PRELIMINARY TONAL ANALYSIS OF THE BASSA LANGUAGE

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I. INTRODUCTION

This analysis is based upon Dr. Kenneth Pike's method as outlined in his *TONE LANGUAGES* (Ann Arbor, 1948). The material used for this study was the contents of my dictionary file after one year's study. All items up to and including four-syllable items were used. In addition, all the verb stems were grouped according to their phonetic form and shape, and studied in all their various tenses. This was a valuable aid and check to the tonal analysis.

Bassa² is a register-tone language with a slight overlap of contour-tone characteristics. It has glides on short vowels, but the glides are not basic to the system. Tone markings used in this material are phonetic, or tonetic. Tonemic writing is considered in section IV below. The following symbols are used here:

á high tone	â high-low glide
ā mid tone	a` mid-low glide
à low tone	ǎ low-high glide
	`a low-mid glide

II. LEVEL TONES

Bassa has three registers, high, mid, and low. Tonemes usually appear on vowels, but they can also appear on syllabic nasals. E.g.: *ń dĕ* 'my mother', *m̃ ɓa`* 'your father'. The three levels can be compared in the following three words, where the last tone in each word is the only one that differs:

sĕĕń 'basket', *fĭĩn* 'piece of meat', *pĩni-gbò* 'clinic'.

The word for 'a bunch of rice' shows the three levels also: *m̃s̃-zà*. These three levels can be demonstrated in the frame *ń . . . s̃* 'my two . . .':

EXAMPLE I

<i>kpá</i>	bone	<i>xwé</i>	corpse	<i>p̃</i>	lap
<i>kpā</i>	debt	<i>xwē</i>	deer	<i>p̃</i>	mud
<i>gbà</i>	hook	<i>hwè</i>	baboon	<i>b̃</i>	news

In a three level system, disyllabic items, or syllables with long vowels, can theoretically occur in nine patterns:

“	~	∨
˘	—	˘
^	˘	“

¹ A second article by Miss Hobley, on Bassa Verbal Formations, will appear in a future issue of the *Journal*.—*Editors*.

² Bassa is spoken by about 150,000 people between Monrovia and the River Cess, in central Liberia. It is one of the Kru languages and as such is classified by Greenberg (*THE LANGUAGES OF AFRICA*, The Hague, 1963) as a part of the Kwa family of Niger-Congo languages. Westermann and Bryan (*HANDBOOK OF AFRICAN LANGUAGES*, PART II, London, 1952) say, 'The Kru dialects are closely interrelated both in vocabulary and structure, but are not inter-intelligible. Their closest relations are the Kwa languages, but the greater part of their vocabulary is exclusively their own.'

On single-syllable items, six of these patterns occur in Bassa. The items in brackets show the nearest approaches to the missing patterns:

EXAMPLE 2 Frame ní . . . s̄́ 'my two . . . '

sáá	animal	s̄́é	snail	(g`aá)	mat
sáā	sacrifice	s̄́ā	tie it	gàā	man
(sáâ)	pipe	(s̄́a`)	spider	gâà	horn

On disyllabic items, all of the patterns occur, although the mid-high pattern has not yet been found on one word:

EXAMPLE 3 Frame ni . . . s̄́ 'my two . . . '

čáná	oil	pō kpé	to cry	záká	instrument
páni	pan	sāsā	tiredness	zàsē	witness
kó-dù	knee	nyē-gbè	wood	zòtà	bottle

III. GLIDES

All glides in Bassa are analysed in terms of their end-points, and are thus looked upon as two tonemes juxtaposed, rather than separate tonemes. Glides may be parts of single morphemes, e.g., dŭ 'head', cāá 'parrot'; or may be interrupted by a morpheme boundary, as in tíò nyé n̄ dyi māá? 'what time did you come?'. The māá here is a contraction of mā 'past tense' and ké 'question indicator'.

In a three-register tone language, there are six possible combinations of tonemes to form glides, thus:

FALLING	RISING
high to mid	low to mid
high to low	low to high
mid to low	mid to high

Glides can be long or short; that is, there may be one-mora and two-mora glides. Both one-mora and two-mora glides occur in Bassa. It is interesting to note that the three patterns which were missing on the single-syllable items with long vowels (example 2) appear as one-mora glides.

EXAMPLE 4

two-mora only	one-mora only	one-mora only	one-mora two-mora	one-mora only	two-mora only
sāā sacrifice	n̄ here	fo` wait	j`e lizard	dŭ head	ḃēé pig
nēē dews	pŭ just	na` walk	gb`ε bed	gbă trick	dyōó fish
tíē darkness		so` come	gâā man		mōó rice

FRAMES

ní . . . t̄ā	ḡ dyi . . .	ḡ . . . mā	ḡ . . . t̄ā	nì . . . s̄́	ḡ . . . s̄́a
my three . . .	he came . . .	he . . . past tense	his three . . .	your two . . .	his two . . .

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IV. THE TONEMES

The tonemes of Bassa:

orthographically written	realized tonetically as
high ' [ˈ] high tone	[ˈ] low-high glide, occurring only after fortis consonants (b d g gb gm h hw j v z)
mid zero [ː] mid tone	[ː] low-mid glide, occurring only after fortis consonants
low ` [ˋ] low tone	[ˋ] mid-low glide, occurring only after lenis consonants (č f k kp p s t xw ɓ ɗ dy m n ny w)
fall ^ [ˑ] high-low glide	

V. PITCH CHANGES

Pitch changes are of two kinds: the substitution of one toneme for another, and the modification of a toneme by its environment.

SUBSTITUTION

1. Showing morphological change. There are very few of these. Those found concern the time of day. E.g.: gànà kúún 'in the morning', gànà kúún 'today morning, this morning'; ɖɛaa 'that', ɖɛaa nyɔaa 'this'.
2. Mechanical, meaningless changes.
 - (a) In forming compound nouns, the second noun always takes the low toneme, regardless of its original toneme.

EXAMPLE 5

ní	water	bí	hole	ní-bí`	well
xwí	civil	wūɖū	language	xwí-wu`dù	English
hw`ē	palm	ní	water	xw` ē-ní`	palm-butter
gāā	man	dyú	child	gāā-dyu`	boy
ní	water	dū	head	ní-dù	spring

- (b) Certain qualifying adjectives act similarly when appearing with the nouns they qualify. E.g.:

ɓ mɔ` súá 'it is old', but ɓ mɔ` gbòɖòò su`à 'it's an old box'

ɓ mɔ` ɖíé 'it is new', but ɓ mɔ` ɖɓ ɖí`è 'it's new cloth'

MODIFICATION

1. Modification of the low toneme. Partial assimilation.
 - (a) The mid-low glide which occurs after lenis consonants is modified to high-low when following a high toneme, and is lowered when following a low toneme, except when two mid-low glides occur together. E.g.: pe`e` 'fruit', se`e` 'orange', si`i` 'epilepsy'.

TABLE I
MINIMAL CONTRASTIVE SETS Frame: 5 . . . 'he, his . . .'

1. (a)	wé	sick	dí	spear	ché	learn	kpá	bone	sá	grab
	wé`	broken	dí	eat	ché	cut	kpā	debt	sā	tire
(b)	k̄	back	s̄	two	sá	sneeze	nyó	animal	nēé	dew
	k̄`	own	s̄	arm	sā	tie	nyō	person	nēé`	iron
(c)	wíqí	money	máná	nose	dyóó	sea	sóó	saw	déé	peanut
	wíqí	goat	mānā	swallow	dyóó	fish	sóó	stone	déé	stranger
(d)	wédé	song	xwé`è	nail	tié	darkness	bé	to tap	tōqō	hill
	wé`dè	lizard	xwéé	hook	ti`è	basket	bē	lick	tò`qò	bear
(e)	túú	cage	f̄	flesh	péé	game	xwé	corpse	ná	drink
	túú	nail	f̄`	rest	pe`è	fruit	xwé`	how	ná`	walk
(f)	qáá	kill	bíqí	home	bédé	have	f̄ó	bird	dyédé	eye
	qáá	rain	bí`qí	cow	bédé	sing	f̄ó	fork	dyé`dè	monkey
(g)	dyúá	face	dyóó	raw	qúú	rope	pédé	cross		
	dyúá	seed	dyóó`	sky	qu`ù	ear	pédé	sell		
2. (a)	z̄	year	b`i`	mud	d`é	shame	g`áá	mat	gb`é	bed
	z̄`	under	bíì	eddoes	dè	fly	gāá	man	gbè	load
(b)	gb`o	waist	hw`ó	feast	dédé	deer	dòò	mortar		
	gbò	house	hwó	canoe	dédé	beans	dóó	bird		
3. (a)	mó	want	qá	to call	sé	bamboo	só	plot	tá	tree
	mó	may	qā	to fry	sē	negative	sō	net	tā	stem
	m`	is	qá`	has	sè	leave	s`	get out	ta`	chew
4.	sáá	animal	b̄ó	refuse it	kp̄ó	branch				
	sāá	sacrifice	b̄ó`	to hit	kp̄ó	eggplant				
	sáá	pipe	b̄ó`	sir	kp̄ó`	to be fat				
	sāá	tire	b̄ó`	bag	kp̄ó`	toad				
5.	gbàà	hat	b̄áá	friend						
	gbāā	lock it	b̄áá	plant it						
	gbāā	to redeem	b̄áá`	beg						
	gb`āā	spread it	b̄á`á	daddy						
	gb`aa`	to roof	b̄á`ā	father's						
	gbāā	worm	b̄á`a`	animal						
	gb`āā	shelter	b̄á`à	lead						

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EXAMPLE 6

m̄ b̄a my father	m̄ f̄s I rest
̄5 b̄a` his father	̄5 f̄s` he rests
m̄ b̄a` your father	m̄ f̄s` you rest

- (b) When the second vowel of a double vowel takes a low toneme, it is partially assimilated to the toneme of the first vowel. E.g.: s̄aâ 'pipe', p̄éê 'to pay', b̄āa` 'beg', p̄ēē` 'to be cold'.
- (c) When the first vowel of a cluster carries a low toneme, and it is followed by a high, then it is partially assimilated to it. E.g.: g`aá 'mat', v`ěé 'feeler'.

2. Modification of the low toneme by neighbouring low toneme. The low toneme group has been subdivided into two sub-groups on the basis of this modification. When using a mid-tone frame, all low words acted alike. When using a low-tone frame, however, some words were heard to rise before the low toneme of the frame. A difficulty then encountered was the presence of several apparently minimal pairs between the two groups:

EXAMPLE 10 Frame: ̄5 . . . vènè 'his, he . . . big'.

z̄à	red	leaf	gbùù	farm shelter	old farm
j̄ì	sufficient	a noise	dùù	cannon	caterpillar
hwè	finish	baboon	bùì	trap	relative
dè	set down	palm kernel			
dòò	torch	tree			
dèdè	bathe	sit			

The people recognize a difference between these groups, and I have conducted tests which have shown me there is a difference. However, there is no evidence that there are two low tonemes – they cannot be proved separate in frames, and the only difference heard is in this low tone environment. All are marked with low tone, and there has been no difficulty encountered. The verbs also divide into two subgroups, one of which shows the same rise in tone in certain formations.

3. Modification of the high-low glide.

When a high-low toneme occurs on the second vowel of a vowel-cluster, it is lowered. E.g.: gbàâ 'to redeem'.

VI. TONE SANDHI

d̄é 'what, which', used in a question 'what . . . ?' or 'which . . . ?', will always cause the noun it modifies to take a low toneme.

m̄énéé 'small' changes tone when modifying dyú 'child' – dyú m̄ènéé – but does not change when modifying other high-tone words.

The verb auxiliary nì` changes to n̄i following a mid or high stem verb in the negative.