

TONAL ICONS IN BINI

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Bini, a language spoken by a million horticulturists in and around Benin City, Nigeria, belongs genealogically to the Edo branch of the Kwa family of the Niger-Congo phylum. Typologically, it is characterized by open syllables and lexical tone of a "terrace" type.

Bini dialects differ in their tonemic inventory, which ranges from four to six tonemes per dialect. But all dialects exhibit two and only two morphotonemes--high and low--which are the prosodic units discussed here.

In the semiotic terminology of philosopher Charles Sanders Peirce [1931], icons are signals, linguistic or otherwise, which resemble their referents (as opposed to symbols, whose connection with their referents is purely arbitrary).

Grammatically, the Bini lexicon can be divided into six form-classes, as follows (cf. Wescott [1962-63]):

1. nouns
2. pronouns
3. verbs
4. adverbs
5. particles
6. exclamatives

Of these classes, two--verbs and pronouns--lack tonal iconicity because their tone is grammatical rather than lexical in nature.

All of the remaining four exhibit lexical tone and some degree of tonal iconicity. The importance of iconicity in each class is indicated, in descending order, as follows:

1. adverbs
2. nouns
3. particles
4. exclamatives

Well over 95% of Bini adverbs exhibit obvious tonal iconicity. There are, I think, three reasons for this fact. First, adverbs, alone among Bini form-classes, normally have uniform tone (one to eight consecutive high tones per word or low tones per word). Second, adverbs are, not surprisingly, the most descriptive of Bini lexemes. And third, the adverbs of Bini correspond, in their proneness toward morphemic replication and phonic echoism, to the "ideophones" of other Niger-Congo (especially Bantu) languages (cf. Fortune [1955]).

Because Bini adverbial iconism presents the linguist with an abundance of illustrative riches, the most concise way to present this iconicity is in terms of the following five semantic polarities:

1. tall vs. short
2. thin vs. thick
3. tight vs. loose
4. bright vs. dull
5. open vs. closed

Lexical illustrations of these five antonymies follow:

(with uniform high tone)		(with uniform low tone)	
<u>Tall</u>		<u>Short</u>	
gadagbaa	long and lanky	betee	short and fat
gidigbii	big and high	gieghegieghe	short
gbokoo <sup>1</sup>	tall and portly	gieenrien	small
gbahuun <sup>2</sup>	tall and fat	giegieegie	tiny
higboo	tall and fat	guerle	very small
gegege	lofty	kpekurlu	short
geletee	towering	kpekurlu	cringing

<sup>1</sup>Bini has no phonemic consonant clusters. All digraphs used in this paper represent single phonemes, as follows:

kp	a voiceless labio-velar stop
gb	a voiced labio-velar stop
bh	a voiced bilabial fricative
kh	a voiceless velar fricative
gh	a voiced velar fricative
rh	a voiceless apical trill
rl	a voiced retroflex lateral

<sup>2</sup>The letter n after a vowel represents (suprasegmental) nasalization of that vowel.

gogoogo	very high	woo	burning low
golotoo	way up	gbaa	level
gongɔngɔn	upright	bɛbɛɛbɛ	bulging
gbokoo	tall and lumpy	bhuebhueɛbhue	fat and lazy
gboghodoo	long and wide	papaapa	flat and smooth
dinhindinbhin	deep	perhɛɛ	flat
gulugulu	deep and narrow	kpatakpata	pelting heavily
huɛnrɛɛn	very deep	guozaa	falling heavily
vɛɛn	limitless	gbarɪaghada	falling heavily
vuun	extremely deep	lɛ'u	falling heavily
		m ɛ 'un	falling heavily
		gunkan	sitting down heavily
		kpukpukpu	covering
		zigharɪakpa	crippled
		gizaka	falling crookedly
		kpu	plop!

Thin

gilogilo	tall and slender
sigosigo	tall and thin
gokaan	tall and lean
gunkaan	very thin
floghoflogho	tall and thin
rhigoo	tall and lean
rhɪamarhɪama	lean
viɛnvɛɛnvɛn	small and thin
vɛn'in	delicate
yinghenyinghen	very lean
simosimo	skinny
singensingen	very thin
wɛɛnrɪɛn	narrow

Thick

gbankangbankan big and thick

<u>Tight</u>		<u>Loose</u>	
kankaankan	tight	panpaanpan	slack
gbangbaangban	stiff	bolozo	fleshy
kakaaka	hard	guazaguaza	billowy
kokooko	hard	zeghezeghe	loose, shaky
lukuluku	strong	logologo	loose-jointed
		logiologio	swaying
		buzebuze	powdery
		waghawagha	crumbly
<u>Bright</u>		<u>Dull</u>	
gieenrien	bright and clear	muen	faint, dull
gborlogborlo	loud and clear	gbo	gaping, foolish
goorlo	high-pitched		
goghogogho	high-pitched		
rhanrhaanrhan	loud		
rleghee	loud		
<u>Open</u>		<u>Closed</u>	
gboo	wide open	kukuuku	closed

In a few cases, a single segmental adverb will have two different prosodic realizations, with semantic contrast corresponding to tonal contrast:

(with uniform high tone)		(with uniform low tone)	
betεε	big and fat		short and fat
gunkaan	emaciated		sitting down heavily
gbodoo	long and wide		full (of the moon)
gidigbii	tall		husky
leleεεε	big (of a corpse)		big (of a yam-stick)

About 10% of Bini adverbs have non-uniform tone, their tonal irregularity recalling that of nouns. They are not, however, exceptions to the iconicity rule, since all of them without exception denote irregular shape or motion. Most of these prosodically irregular adverbs are tonally "triangular", exhibiting the pattern high-low-high or high-high-low-low-high-high. Examples are:

rhúrhrúrhú	staggering
périépèrièpérié	fluttering
tíghítíghítíghí	twisted
kínókinòkínó	woven
bígbìgbòbígbó	crooked
góbágòbàgóbá	crippled
khúríúkhùríùkhúríú	jerky
ghériéghèrièghérié	stealthy
yínghényínghènyínghén	skimpy
yéngghényèngghènyéngghén	kinky

A few other tonally irregular adverbs follow idiosyncratic patterns (yet remain iconic). Examples are:

vàghavághá	staggering
wèkèéwèkèé	waddling

Tonally counter-iconic adverbs are extremely rare. The only ones I have been able to find are these:

wòòrìòò	tall
bòòzì	big and long
lúkú!úkú	stocky
géngééngén	shut tight

And two of them may actually be tonosemically regular, if *bòòzì* refers to the horizontal rather than the vertical dimension and if *géngééngén* refers primarily to tightness rather than to closedness.

Besides adverbs, the only Bini lexemic class most of whose members exhibit tonal iconism are nouns. But relatively few nouns are tonally uniform, and fewer still show the kind of phonosemic pairing observed in adverbial pairs like *gídígbí* 'tall' ~ *gìdìgbí* 'husky'. The sole nominal example of such pairing that I have encountered is:

áyó 'high number' ~ òyò 'small boy'

And even here the semantic pairing is only partial.

Most nouns exhibit non-uniform tone and segmental prefixation. Many also exhibit segmental suffixation; and a few exhibit compounding of roots. The only noun-tone that is significant as far as phonic iconism

is concerned is root-tone. (Needless to say, any noun that has two or more roots with contrasting tones is iconically indeterminate.)

Nouns which exhibit the kind of paired semantic subcategorization found in adverbs are few. In fact, the only real semantic polarity they do display is that between High and Low, although "height" and "lowness" in Bini nouns may be spatially, acoustically, or judgmentally interpreted. Examples of such pairings are:

<u>High</u>		<u>Low</u>	
	(with high root tone)		(with low root tone)
ùké	top	òtò	bottom
ìsó	sky	òtò'è	earth
ùhùnbhù	head	òwè	foot
érlérlé	flute	úbè	drum
òtén	true kinsman	ùmòbò	step-kin
ègé	gold	ìkù	trash
èdó	Bini	ésàn	Ishan <sup>3</sup>
èsé	goodness	Ádàn	evil <sup>4</sup>

There are at least two semantic subcategories of the high-low polarity in Bini whose realizations among nouns are, though plethoric, lop-sided, in the sense that they exhibit no antonymous pairing. These two are authority (high status, with high tone) and sickness (low status, with low tone). Examples of authorities are:

érhá	father
ólágá	chairman
òká	village headman
ólógún	lord
òkóríó	prince
óbá	king

<sup>3</sup>The Ishan are neighbors and "country cousins" of the Bini, whom the Bini regard as base and uncouth.

<sup>4</sup>The capital letter A represents a vocalic morphophoneme, whose color is unknown, though its tone persists. This vowel occurs only at the peripheries of bound lexemes, whose vocalism is assimilated to that of the unbound forms to which they are attached.

Examples of sicknesses are:

òkpò	hemorrhoids
òkpàtàlè	gonorrhoea
àrìòṅ	craw-craw
òkùkù	chicken-pip

In rare cases, tonosemic pairing without grammatical pairing occurs. One such case is:

ègíèègíè	'quickness' <sup>5</sup>	~	wèè	'slow'
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My impression of Bini nouns is that about 75% of them exhibit tonal iconism--a considerably lower percentage than in the case of adverbs but still far higher than one would expect from chance alone. Examples of nouns with uniform low tone in which high tone would be expected, at least in the root, are:

òvèn	sun
ùkí	moon
òsà	god
ògíè	chief
èsí	virtue

Among exclamatives, there are many examples of words with high tone which express a high degree of excitement, such as:

á	oh!
tá	watch out!
lá	hail!
gèè	hey! <sup>6</sup>

The iconic significance of such utterances, however, is highly questionable. For it is doubtful whether the attention of intended hearers could be caught at all if these word-tones were low.

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<sup>5</sup>The noun ègíèègíè is a compound, consisting of a reduplication of the noun \*ègíè, in which the root is -gíè.

<sup>6</sup>Morphologically, gèè consists of a root ge- and a segmental suffix -A.

Particles are equally problematic. Many have variable tone. An extreme example of this indeterminacy is the interpolative particle -ikA-, 'every', whose tones depend wholly on lexical context. Yet there are two particles which exhibit phonosemic pairing of the type found among nouns and adverbs. These are:

rhÁ (emphatic prepositive) ~ rhÀ (negative prepositive)

In effect, then, the only two Bini lexemic classes that exhibit marked tonal iconism are nouns and adverbs. The reason why adverbs are so much more iconic than nouns may be that adverbs (some of which modify nouns as well as verbs) are, in terms of their incapacity to serve as head-words, more descriptive than nouns.

In sum, tonal iconism is a salient characteristic of Bini. The question which this fact inevitably raises in the minds of Africanists is whether such iconism is typical or exceptional among Niger-Congo languages. According to Samarin [1965] it does occur in Gbeya and Ewe. Courtenay [1968] has shown, interestingly, that corresponding to the Bini adverbs denoting irregular shape or notion, Yoruba has ideophones of the tone pattern high-mid-low-mid denoting "deviation from the norm". My own impression of Igbo (based on informant work as well as Welmers and Welmers [1968], Swift [1962], Wescott [1962]) is that it occurs, but less widely than in Bini. My impression of Twi (based on Welmers [1946] and Redden [1963]) is that it occurs here too, but less widely than in Igbo. Some Igbo examples are:

éíú	high (sky)	àlà	low (ground)
ógó!ógó	tall	ńkpèrèsè	short
ńnúkwú	bright	ńgòńgò	dull
ó cá	clear	dègùù	gloomy

An analogous pairing from Twi is èsó 'top' ~ àsè 'bottom'. (While Twi exhibits unpaired icons like téntén 'high' it also exhibits counter-icons like wàrè 'be tall'.)

Such a cross-language sampling, of course, is inadequate both in depth and in scope. I hope, however, that the question of tonal iconicity may come to interest a sufficient number of my colleagues so that an adequate survey of Niger-Congo tonal icons will eventually result.



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