

ILLUSTRATIONS OF THE IPA

Kalabari-Ijo

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Kalabari-Ijo (hereafter, Kalabari) is one of the four lects of the KOIN group of East Ijo of the Ijo language cluster in the Niger-Congo phylum (Williamson & Blench 2000: 22). The other lects in this group are Kiriķe (Okrika), Ibanī and Nkoroṛo. Kiriķe and Ibanī are mutually intelligible with Kalabari, and Nkoroṛo is partially so. All the lects in this group are spoken in Rivers State, Nigeria. In addition, there are three other groups of Ijo: Nembe-Akaha (Akassa) in East Ijo, Inland Ijo (Oruma, Akīta (Okordia), Biseni) and Iḡon, which together make up West Ijo. These groups are all spoken in Bayelsa State, Nigeria, with Iḡon spreading further to the west (Williamson, p.c.).

Kalabari has a very limited amount of published work. Some earlier works that include Kalabari as part of a wider study or as the only study include Ladefoged (1964), Williamson (1972, 1988) and Jenewari (1978, 1989). More recent publications include Akinlabi (1995, 1997). This list is by no means exhaustive.

Consonants

There are 22 phonemic consonants in Kalabari, as shown in the consonant chart below.

	Labial	Alveolar	Post-alveolar	Palatal	Velar	Glottal	Labial Velar
Nasal	m	n					
Plosive	p b	t d	ḡ		k g		kḡ ḡb
Implosive	ḡ	ḡ					
Trill		r					
Fricative	f v	s z				h	
Approximant				j			w
Lateral		l					

The consonants are illustrated as follows:

/m/	/ámá/	ámá	‘town’
/n/	/ànà/	ana	‘fish species’
/p/	/páká/	páká	‘go/come/out’
/b/	/bá ⁺ bá/	bábā	‘cut’
/t/	/tà/	ta	‘wife’
/d/	/dà/	da	‘wedge/rule’
/d̥/	/d̥à/	ja	‘some’
/k/	/áká/	áká	‘teeth’
/g/	/ágá/	ágá	‘cane’
/k͡p/	/ák͡pà/	akpa	‘bag’
/g͡b/	/ág͡bá/	ágbá	‘paint’
/β/	/bá/	bá	‘kill’
/d̥/	/d̥à/	da	‘father’
/r/	/árú/	árú	‘boat’
/f/	/fà/	fa	‘lost’
/v/	/válà/	vála	‘sail’ n.
/s/	/sá/	sá	‘debt’
/z/	/ázizà/	áziza	‘broom’
/j/	/jé/	yé	‘thing/do’
/h/	/hóí/	hóín	‘introduction’
/w/	/wá/	wá	‘we/our’
/l/	/lá ⁺ á/	/láā/	‘reach’

The consonants /z/ and /h/ are restricted in their occurrence in morphemes. /z/ occurs mainly in loanwords, and also in free variation with /d̥/ in some morphemes. /h/ occurs in two morphemes only, both used to introduce a story during a story-telling session.

Ladefoged (1964: 10) provides an instrumental study of the labial-velars, /k͡p/, /g͡b/ and the implosives, /β, d̥/, in Kalabari. He clearly demonstrates that these consonants are produced with some suction due to a velaric airstream. Connell’s (n.d.) instrumental study of Kalabari labial-velars confirms Ladefoged’s account of the presence of suction and contrast in these consonants.

Homorganicity

The nasals /m/ and /n/ may occur both syllable-initially and syllable-finally. However, whereas syllable-initially there is a phonemic distinction between them, syllable-finally the contrast is neutralized before plosives. They become homorganic with the following plosives. These nasals never occur preceding implosive stops. Examples of nasal homorganicity are given below.

[ĩmpó] ~ [n̥pó]	‘filthy’	[ĩmbí] ~ [n̥bí]	‘coconut’
[ĩn ⁺ tó] ~ [n̥tó]	‘type of game’	[ĩ ndó] ~ [n̥dó]	‘breast’
[ĩŋkòrò] ~ [n̥kòrò]	‘talking-drum’	[ĩŋ ⁺ góló] ~ [n̥ŋ ⁺ góló]	‘limpet’
[ĩŋmkpára] ~ [n̥mkpára]	‘walking-stick’	[ĩŋmgbè] ~ [n̥ŋmgbè]	‘oyster’

Vowel nasalization in the examples above will be discussed under ‘Vowels’ below.

Syllabic nasal

In the cases above, the initial close vowels may be deleted, in which case the nasals become syllabic, bearing the tone of the deleted vowel. But non-close ones remain, for example,

[ómbú]	‘navel’
[éndé]	‘four hundred’
[ánǵá]	‘corner/place’

Some functional morphemes are inherently syllabic nasals, for example,

/n̩/	‘they’
/ʌm̩/	‘past tense marker’

The clitic pronoun, /n̩/, varies with two longer counterparts, /ɪn̩/ ~ /ĩn̩/. The syllabic nasal precedes consonant-initial morphemes, while the others precede vowel-initial ones, with the Advanced Tongue Root (ATR) value of such morphemes playing a crucial role in the choice of the type of long clitic. The long clitics must agree with the [ATR] value of the following morphemes in the phrase or sentence (see Jenewari 1980; Akinlabi 1995, 1997 for details on clitic pronouns in Kalabari). Examples of the use of these pronouns are given in the illustrative passage.

In addition to the VN- syllable preceding plosives, as seen above, Kalabari has a CVN syllable preceding plosives, but no word-final nasals except syllabic -m, for example,

[kùmbù]	‘axe’	[kóndó]	‘left’
[máǵá]	‘cross-eye’	[mímǵbà]	‘today’
[ḍ̩im̩ḍ̩im̩]	‘whale’	[élem̩]	‘old’

Implosive harmony

Implosive harmony occurs as a distributional constraint involving the implosives /ɓ, ɗ/ versus anterior plosives /b, d/ in morphemes. Within a simple morpheme, only members of the same set can co-occur. No bilabial or alveolar plosive can co-occur with the implosives (Jenewari 1989: 109). However, as in Ẹ̀m̀m̀, an IẸ̀m̀ lect, velar and labial-velar plosives can co-occur with the implosives (Efere 1994: 19), for example,

/ḍ́áḍ́á/	‘dream’
/bàdàrà/	‘very large’
/ḍ́ákó/	‘knock’

The bilabial implosive, /ɓ/, may be reduced to a labial-velar approximant, /w/, intervocalically in morphemes. Further, this approximant may be deleted in that environment, leaving a sequence of two vowels or a long vowel on the surface.

/sùḍ̀è/	→	[sùwè]	→	[sùè]	‘well(n.)’
/ḍ́úḍ́ú/	→	[ḍ́úwú]	→	[ḍ́ú:]	‘grave(n.)’

Labialization

Obstruents are labialized when they occur before a sequence of a back vowel followed by another vowel. Where the tone on the preceding vowel is different from that of the following

vowel, the following vowel is lengthened in order to bear the tone of the de-syllabified vowel, for example,

- /ákúá/ → [ák^wá] ‘drum’
 /ígúá/ → [íg^wá] ‘high-jump’
 /í[↓]róá/ → [í[↓]r^wá] ‘sun’
 /sùá/ → [s^wǎ:] ‘wear’

Palatalization

Like in labialization, obstruents are palatalized when they occur before a sequence of a close front vowel followed by another vowel, for example,

- /ikìà/ → [ik^jà] ‘friend’
 /ògìè/ → [òg^jè] ‘knife’

For some speakers, the close front vowels are reduced to palatal approximants, for example,

- /ikìà/ → [ikjà] ‘friend’
 /ògìè/ → [ògjè] ‘knife’

For other speakers, the stop-approximant cluster is split by reintroducing the close front vowel due to the need to maintain the basic CV-CV pattern in those words, for example,

- [ikjà] → [ikijà] ‘friend’
 [ògjè] → [ògijè] ‘knife’

However, where the tone of the close front vowel is different from the tone on the following vowel, the close front vowel is not reduced to a palatal approximant, for example,

- /àní[↓]é/ → [ǎní[↓]é]

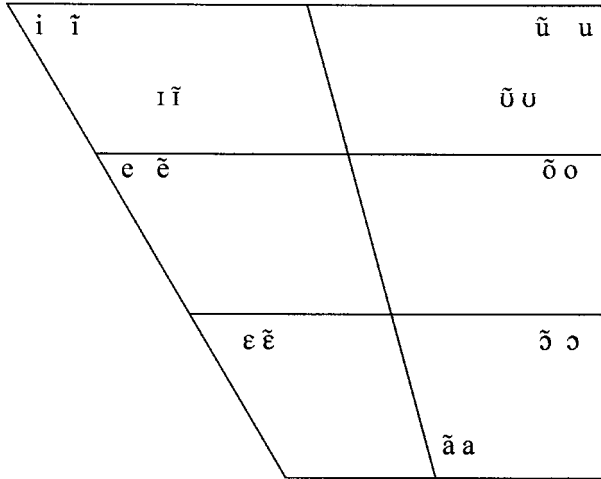
Approximant nasalization

The approximants /j/ and /w/ are nasalized in a nasal environment, for example,

- /òj[̃]ò/ → [òj[̃]ò] ‘calamity’
 /òw[̃]í / → [òw[̃]í] ‘bite’
 /májá/ → [máj[̃]á] ‘catarrh’

Vowels

Kalabari has 18 phonemic vowels, nine oral and nine nasal. Some of these vowels have advanced tongue root position, while others have retracted tongue root position. The IPA distinguishes these two types by using the symbols *ɨ* under the advanced ones and *ɨ̠* under the retracted ones. We will not use these symbols here; rather, for convenience, we will use equivalent phonetic symbols in the chart below.



Vowel harmony

Like most Ijo and many West African languages, Kalabari has a vowel harmony system. The close and mid vowels (oral and nasal) are divided into two mutually exclusive sets based on the size of the pharynx. The size of the pharynx is affected by the relative positions of the tongue root and the larynx in the production of these vowels (Lindau 1978: 10). Set 1 is distinguished by an Advanced Tongue Root [+ATR] position, while set 2 is distinguished by a retracted Tongue Root [-ATR] position. The result of this division is that only vowels of a particular set can co-occur in a given simple morpheme. On the other hand, the only open vowel, /a/, is neutral to this ATR-harmony, as it co-occurs with vowels from both sets. For illustrative purposes, we will give the oral sets only with the IPA diacritics for [+ATR] and [-ATR], as shown below:

Set 1		Set 2
[+ATR]		[-ATR]
ĩ [i]	ɸ [u]	ĩ [ɪ]
ɛ [e]	ɔ [o]	ɛ [ɛ]
	a [a]	ɔ [ɔ]

In the orthography, [-ATR] is distinguished from [+ATR] vowels by placing dots under the [-ATR] vowels. Also, nasality is marked by placing an 'n' after the vowel symbol. The lexical pairs below illustrate the contrast between [+ATR], [-ATR], oral and nasal vowels in Kalabari.

/i/	/si/	si	'bad/evil'	/ĩ/	/sĩ/	sin	'drink/remove'
/ɪ/	/fɪ/	fɪ	'eat'	/ɪ/	/ɔfɪ/	ɔfɪn	'sweep'
/e/	/dé'é/	dé'ē	'drive/abort'	/ē/	/dēĩ/	dēin	'peace'
/ɛ/	/sé/	sé	'stand/state'	/ē/	/sēĩ/	sēin	'shave/load'
/a/	/sá/	sá	'debt'	/ã/	/sã/	sãn	'urine'
/ɔ/	/sɔ/	sɔ	'enter/fight'	/ɔ̃/	/fɔ̃'ɔ̃/	fɔ̃ɔ̃n	'ashes'
/o/	/só/	só	'go'	/õ/	/fõĩ/	fõin	'swell/float'
/ɔ/	/sɔ́/	ɔ́sú	'vomit'	/ũ/	/sũ/	sũn	'even'
/u/	/sú/	sú	'sing'	/ũ/	/sũ/	sũn	'hat'

The close back vowels, /ɔ/ and /u/, never occur without an onset consonant word-initially. Also, the mid vowels rarely occur alone. Most often, they occur with another vowel in a sequence.

Vowel nasalization

Oral vowels occurring in the environment of nasal(ized) consonants become nasalized. Examples are given above and in the passage below.

Vowel assimilation

In connected speech, the final non-close vowel of an initial morpheme completely assimilates to the initial onsetless vowel of a following morpheme. But the close vowel only assimilates to the following vowel if the two vowels agree in the feature value for [back]. Jenewari (1980: 15) notes that complete assimilation may lead to contraction, where the identical vowels in sequence become a single short vowel. This happens where the tone of the preceding deleted vowel is either lost or identical to the tone on the affecting vowel, for example,

/mà + éréme/	→	[mǎ:réme]	→	[mǎ:réme]
two women				‘two women’
/tò + ángá/	→	[tà:ngá]	→	[tàngá]
what place				‘where?’
/mí + ójíḃḃ/	→	-----	→	[míójíḃḃ]
this male-person				‘this man’
/mí + éréḃḃ/	→	[mé:rèḃḃ]	→	[méréḃḃ]
this female-person				‘this woman’

Deletion

The close vowels /i/ and /u/ are not reduced to [j] and [w] respectively when their associated tones are different from the tones on the following vowels. However, the close front vowel is deleted in the verb complement, /wérári/. In this case, the delinked low tone is reassigned to the preceding alveolar trill /r/, becoming syllabic in the process.

The peripheral vowels (close and open) may be deleted when they occur between an obstruent and an alveolar trill /r/, provided both tone and vowels in the morphemes are identical, for example,

/kúru/	→	[krú]	‘wood species’
/píri/	→	[pri]	‘bush’
/kára/	→	[krá]	‘carve’

Tone system

Kalaḃari is a tone language with two tone levels, high, /´/ and low, /`/. In addition, a phonemic downstep, [ˆ], occurs, which can give rise to a three-way contrast in morphemes, for example,

/íkú/	‘lice’
/iˆkú/	‘heavy’
/ikù/	‘cocoyam’

Further, downdrift occurs in Kalaḃari, whereby in an utterance any successive high tone is on a pitch lower than a preceding high due to an assimilatory effect of a surface intervening

low tone (Jenewari 1977, Harry 1998). Similarly, downstep is underlyingly a high tone lowered by a preceding unassociated low tone in Kalabari.

All tones will be marked in broad and narrow transcriptions of the illustrative passage. In the orthographic rendition of the passage, high tone will be marked with the acute accent, downstep with a macron and low tone left unmarked, following the present orthographic conventions for Kalabari (Jenewari 1978).

Transcriptions of the passage in Kalabari

Narrow transcription

ìg^wè fèrù nǐ í^rwá nǎ jé bák^wári mǐnè, ìnà bú^ú tówó krò tē^í? ò mí jè mē bák^wári bè té biár ògbò, àní^é gbórú^bó † tó ó^dzú ófrímá^r òpù kápà s^wà wérár ìgòní^bò bó b^ró jé^é. ìgòní^bó † b^e b^ró gbórú krikri, àní^é ìn ìnà bú^ú b^e jé mǐnè, ìnè mǐè tó òpù kápà s^wà wérár bi ìgòní^bò b^e, òrò òpù kápà mē sǐbó sǐbó àní^é krò tē^íjé^é. ìg^wè fèrù wèní sá^íkí kròmó òrì iné brí iné brá fié. ò kròmá f^árì sàkí, òpù kápà s^wì ìgóní^bò b^e pìkí kápà mé kè kròmá ò bú^ú fínámá^r. ìg^wè fèrù f^e wéní: sá^íkí, òrì só † b^e érí^té mǐnò òpù kápà mé só dók^wá^tá, ò wèní brá sǐ. ìg^wè fèrù brá sǐ té só, àní^é í^rwá kélé kè b^á pákà jé^é. í^rwá b^e b^á pákà gbórú krikri, ówú wèno òpù kápà s^wì ìgòní^bò b^e † b^á, àní^é ò brá nà ò s^wà: wérár òpù kápà mé sǐ jé^é. kápà mé só tē só, ìg^wè fèrù wèní. brá nǎ mǐnè ò bú^ú pírì mǐnè, òrì nǐ í^rwá nǎ, í^rwá krò tē^ím.

Broad transcription

ìgùè fèrù ná í^rúá nà jè bákú^árì mǐnè ì nà bú^úbú túbó kùrò tē^í. ò mí jè mé bákú^árì bèté biárì ògbò, àní^é gbórú^bó † té ò^dzú ófrímá^r òpù kápà s^wà wérárì ìgòní^bò bó b^ró jé^é. ìgòní^bó † b^e b^ró gbórú krikiri, àní^é ìnì ìnà bú^úbú b^e jé mǐnè, iné mǐè té òpù kápà s^wà wérárì b^e ìgòní^bò b^e, òrì òpù kápà mé sǐbó sǐbó àní^é kùrò tē^í jé^é. ìgùè fèrù wèní sá^íkí kùròmá òrì iné b^árá iné b^árá fié. ò kùròmá fié^rì sàkí, òpù kápà s^wà ìgòní^bò b^e pìkí kápà mé kè kùròmá ò bú^úbú fínámá^r. ìgùè fèrù fié wéní sá^íkí, òrì só † b^ó érí^téé mǐnè òpù kápà mé só dókú^áá, ò wèní b^árá sǐ. ìgùè fèrú b^árá sǐ té só, àní^é í^rúá kélé kèi^bà pákà jé^é. í^rúá b^e biá pákà gbórú krikiri, ówú wèní òpù kápà s^wà ìgòní^bò b^e † b^á, àní^é ò b^árá nà ò s^wà wérárì òpù kápà mé sǐ jé^é. kápà mé só té só, ìgùè fèrù wèní b^árá nà mǐnìní ò bú^úbú pírì mǐnè, òrì nà í^rúá nà, í^rúá kùrò tē^ím.

Orthography

Igue fèrù ná í^rúá ná yé bákú-á^rì mǐnè ìnà bú^úbú túbó kùrò tē^ín. N mí ye mé bákú-á^rì bèté bi-á^rì ogbo, aníè gbórú^bótē, ójū ófrímá-á^rì opu kapa s^wa wérárì b^e igonibò b^ó b^óró yéè. Igonibò b^e b^óró gbórú krikiri, aníè ini ina bú^úbú b^e yé mǐnè, iné mǐèté opu kapa s^wa wérárì b^e igonibò b^e, ori opù kapa mé sǐn-b^ó sǐn-b^ó aníè ìnà bú^úbú kùrò tē^ín yéè. Igue fèrù wèní sá^íkí kùromá ori iné b^árá iné b^árá k^e fié. O koroma fié-á^rì sakí, opu kapa s^wa igonibò b^e pìkí kápà mé k^e koromá o bú^úbú fínámá-á^rì. Igue fèrù fié wéní sá^íkí, ori só b^ó érí^téé mǐnè opu kapa mé só dúkú-á^ā, o wèní b^árá sǐn. Igue fèrù b^árá sǐn té só, aníè í^rúá kélé k^e biá pákà yéè. Í^rúá b^e

ɓja páká gbórú kirikiri, ówú wení opu kápa súa igoníḅo bé ɓā, aníē ọ ɓará na ọ súá wéráɾi opu kápa mé sín yéē. Kápa mé só tẹ só, igue fẹrụ wení ɓará na mininí ọ ɓùɓù ɓírí mìnẹ, ori na írúá na, írúá kuro tẹjĩm̃.

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