Logoori-Tiriki Comparative Noun Tone

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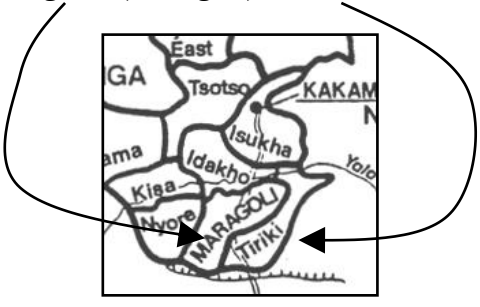
Empirical Hypothesis: It is possible to reconstruct the tone of the latest shared ancestor of Logoori (Maragoli) and Tiriki



How to reconstruct noun tone of proto-Tiriki-Logoori:

Line up the proto-Tiriki nouns with the proto-Logoori nouns.

Why not just compare the tones of nouns in Tiriki with the tones of nouns of Logoori?

Variation in tonal form arises from subsequent confounding factors

‘rabbit’ in Logoori (11 speakers)

kɪ-sóngʊra	kí-sʊ́ʊ́ngʊra	kí˥-sóngʊ́ra	kɪ-sʊ́ʊ́˥ngʊ́ra
kí˥-sʊ́ʊ́ngʊ́ra	kɪ-sʊ́ʊ́˥ngʊ́ʊ́ra	kí-sʊ́ʊ́˥ngʊ́rá	

H kɪ-sóngʊra, kí-sʊ́ʊ́ngʊra (21%)

HH# kí-sʊ́ʊ́˥ngʊ́rá (34%)

HH kɪ-sʊ́ʊ́˥ngʊ́ra, kí˥-sʊ́ʊ́ngʊ́ra, kɪ-sʊ́ʊ́˥ngʊ́ʊ́ra (45%)

Which form should be compared to Tiriki [ʃísúúngula]? H is the least frequent, but the most similar

Should this noun be included at all? (Probably a later loan from Swahili)

‘announcement flute, megaphone’

Logoori	H	ri-dúúreere	22%	HH	ri-dúú˥réére	8%
	HF	ri-dúú˥réere	39%	HH#	ri-dúú˥rééré	31%
Tiriki	HF	ín-dúú˯léeɭa	83%	HH	tsíín-dú˯lééɭa	16%

Exclude post-proto loans (how stringently should exclusion criteria be applied?)

Tiriki	*Logoori*		
ínúkúta	ınúguda	‘letter (alphabet)’	Proto Luyia predated local alphabet; form variation
ʃĭ↓líímbóto	ıkíriimbóoto	‘flea’	From Sw. *kiroboto*, t=t is unhistorical
ísóti	esooti	‘vulture’	Nilotic (Luo *achuth*, Nandi *chep-sengwet*), t=t
ítííka	ıtííga	‘giraffe’	Swahiili *twiga*, t=t

Some loans look old enough (expected correspondences) to not expel

Tiriki	*Logoori*		
líí↓pwóoni	ırí[l]bwóoni	‘potato’	Luo *rabuon*
italaŋi	ıdaranyi	‘lion’	Iraqw *diraangw*

The General Picture

Tones of Tiriki and Logoori nouns are basically the same.

Tiriki shifted certain final Hs to the penult: Logoori better reveals the earlier system

Both languages “tend” to turn F into H, Logoori more so than Tiriki (?)

Where did H vs. Fall come from?

Logoori has a “trend” to put everything in the single-H class

About 80% of our examples have a comprehensible relation to a protolanguage tone pattern

Overview of the tone patterns, Logoori perspective

0, 1 or 2 H tones

Single H usually root-initial; a few cases have H on σ_2

H on prepausal long penult is realized level vs falling, lexically governed

2-H nouns have second H on final or penult (lexical)

First H is predictably pre-stem or stem-initial (stem-initial if following V is not short H)

L	‘measles’	eke-heregete
H	‘finger’	eke-déte
2	‘prominent buttocks’	í-gívínɪ
F	‘man’	ʊmʊ-sáaza
H	‘lake’	ɪ-ɲáánza
HH	‘lizard’	ɪrí$^{!}$-syáágári
HH#	‘infant’	ín$^{!}$-dááná
HF	‘potato’	ɪrí$^{!}$-bwóoni

Simple correspondences: Tiriki and Logoori tones are identical

L	*Tiriki*	*Logoori*	117 examples
‘blood’	lii-saahi	ama-saahi	
‘animal room’	ʃi-ko	eke-go	
‘rat’	im-beva	em-beva	
‘measles’	ʃi-heɭekeɭe	eke-heregete	
Basella alba	in-deɭema	en-derema	
‘desert’	ʃ-aaŋgalaaŋgwe	ɪch-aangaraangwe	
‘lion’	i-talaŋi	ɪ-daranyi	
‘virgin boy’	mu-sooleeɭi	ʊmʊ-sooreeri	

H	*Tiriki*	*Logoori*	86 examples
‘granary’	ʃy-áátʃi	ʊrw-ááchi	
‘finger’	ʃi-téṛe	eke-déte	
‘snake’	ín-zúxa	en-zóka	
‘wild pig’	ím-bíitsi	ɪm-bíízi	
‘lake’	í-ɲáánza	ɪ-ɲáánza	
‘old man’	mú-sááxulu	ʊmʊ-sáákʊrʊ	
‘grandchild’	mw-íítsuxula	ʊmw-íísʊkʊrʊ	
‘poverty’	vú-mánani	ʊvʊ-mánani	

σ_2	*Tiriki*	*Logoori*	3 examples
‘jealousy’	ím-bótóxa	em-bódóka	
‘big buttocks’	í-tʃívíni	í-gívínɪ	
‘epilepsy’	ín-dúlúme	ín-dúrúme	

Fall is problematic

Penult Fall vs. level H technically contrast in both language. Tiriki “favors” Fall, Logoori “favors” H. H ~ F variation exists in both languages. Tiriki F corresponds to Logoori H sometimes, Tiriki H corresponds to Logoori F once (*lw-éévo, ʊrw-éevo*: experimental error?).

Deeming the tone of a word tone to be Fall vs. Level H requires further scrutiny in both languages – part of the proto-Logoori, proto-Tiriki desideratum

F=F	*Tiriki*	*Logoori*	29 examples
‘milk’	má-véeɭe	aḿ-béere	
‘jigger’	í-ɲéende	é-ng’éende	
‘sheep’	líí-kóondi	ɪri-góondi	
‘man’	mú-sáatsa	ʊmʊ-sáaza	
‘child’	mw-áana	ʊmw-áana	
‘month’	mw-éeɭi	ʊmw-éeri	

F(H)>H, 50% have tone doublets in Tiriki 18 examples

	Tiriki	*Logoori*
‘pot’	í-ɲúuŋgu	í-nyííngʊ
‘neighbor’	mú-ɻéende	m-téénde
‘grass sp.’	ʃí-véembe	e-véémbe
‘body hair’	vw-óoya	ʊvw-óóya
‘quail’	í-síindu ~ í-sííndu	ɪ-sííndʊ
‘crust’	líí-ɭóondo ~ líí-ɭóóndo	ɪl-lóóndo
‘valley’	lú-váanda ~ lú-váánda	ɪkí-váánda
‘tree’	mú-sáala ~ mú-sáála	ʊmʊ-sáára

H=H (no attested variation in Tiriki) 10 examples

	Tiriki	*Logoori*
‘lake’	í-ɲáánza	ɪ-ɲáánza
‘rooster’	í-tááywa	ɪ-dááywa
‘monkey’	í-xóóndo	eke-kóóndo
‘bean’	líí-káánda	ɪri-gáánda

Both languages have some tendency to turn F into H; there is no contrary H > F tendency. Logoori may more strongly tend to level falling tones

Double-H patterns

HF	*Tiriki*	*Logoori*	4 examples, note H~F variation
‘skipper’	ím-bé˩˥ɭéeŋdʒe	é˥m-béréenge	
‘peanut’	í˩˥ɲ-dʒúuku	í˥n-jóʊgʊ	
‘potato’	líí˩˥-pwóoni	ɪrí˥-bwóoni	
‘maize’	líí˩˥-túuma ~ líí˩˥-túúma	ɪrí˥-dúuma	

HH (short penult)	*Tiriki*	*Logoori*	5 examples
‘ant sp.’	í˩˥n-dúkúli	í˥n-dógónyi	
‘pig’	í˩˥ŋ-gúlúme	í˥n-góróve	
‘lizard’	líí˩˥-syáákáli	ɪrí-syaagári	
‘cockroach’	lii˩˥-síɭlíɭi	rí˥-síríhi	
‘bowl’	ʃĩ-pí˩˥ɭáúúni	ɪkɪ-bí˥ráʊʊ́ni	

Double H w. penult H is low-frequency in Logoori
Tiriki HH (short) penult has two historical sources, see below

The problem of final H

CV H	*Tiriki*	*Logoori*	14 examples
‘louse’	ín-da	ín-dá	
‘head’	mú-r̰wi	ʊmó-twí	
‘Napier grass’	lú-si	ʊró-sí	
‘crotolaria’	mú-r̰o	ımí-tó	

Logoori CV́# shifts to penult in Tiriki.
Logoori CV́# may also shift to penult in Logoori.

‘alcohol’	ámá-rwá	ámá!-rwá	ámá-rwa
‘bow’	ʊvó-tá	ʊvó!-tá	ʊvó-ta
‘louse’	ın-dá	í!n-dá	ín-da
‘Napier grass’	ʊró-sí	ʊró!-sí	ró-sı
‘firewood’	ʊró-kó	óró!-kó	óró-kʊ
‘hair’	ıríí-só	ıríí!-só	iríí-sʊ
‘finger millet’	ovó-ró	ovó!ró	
‘dog’	ím-bwá	í!mbwá	

Leftward shift of final H as part of Tiriki synchronic tonology. Near future: H roots have H on root σ_1

a-la[ví̱r̥-a]	‘he will pass’	a-la[lé̱er̥-a]	‘he will bring’
a-la[vú̱kul-a]	‘he will take’	a-la[ká̱laaŋg-a]	‘he will fry’
a-la[xó̱ómool-a]	‘he will make faces’		

With CV roots, H is pre-root

a-lá[ly-a̱]	‘he will eat’

H retracts only pre-pausally

a-la[ly-**á̱**] vwaaŋgu	‘he will eat quickly’
a-la[vé̱k-a] vwaaŋgu	‘he will shave quickly’
a-la[vó̱yoŋan-a] vwaaŋgu	‘he will go around quickly’

With a following modifier, CV H nouns have the H word-finally (downstepped H after is predicable)

‘N’	‘good N’	
lú-sya	lúsy**á** ꜜlúláhi	‘branch’
vú-si	vús**í** ꜜvúláhi	‘flour’
líí-swi	líísw**í** ꜜlííláhi	‘hair’
mú-r̥wi	múr̥w**í** ꜜmúláhi	‘head’

Class prefixes in Tiriki are underlyingly L: [lú-sya] ← /lu-syá/ is synchronically recoverable

"Issues" with final H are widespread in Luhya, e.g. selective leftward shift of final H's (which ones?). See M_2 pattern for H roots, avoiding final H:

a-li[ly-a]	'he will eat'
a-li[vek-a]	'he will shave'
a-li[teéx-a]	'he will cook'
a-li[vukúl-a]	'he will take'
a-li[voyóŋán-a]	'he will go around'
va-li[teex-án-ír-a]	'they will cook for e.o.'

Melodic H on CV stems does not shift, on CVCV stems it does

a-li[tsy-á]	a-li[tsy-á] vwaaŋgu	'he will go (quickly)'
a-li[lím-a]	a-li[lim-á] vwaaŋgu	'he will dig (quickly)'
a-li[vakál-a]	a-li[vakál-a] vwaaŋgu	'he will spread out to dry (quickly)'
va-li[molóm-er-an-ir-an-a] (vwaaŋgu)		'they will talk for each other (quickly)'

Details of final retraction in Tiriki need further investigation. It is not a superficial phonetic process, it is a complex phonological rule.

Consequences of final retraction, in HH# nouns

Logoori HH# → Tiriki HH: HH# plus retraction of final H in Tiriki 9 examples

	Tiriki	*Logoori*
‘chicken’	íˬŋ-góxo	éˡ-ngókó
‘sunbird’	múˬ-tsúni	ʊmóˡ-zúné
‘squirrel’	ʃíˬ-káˬmánʸa	ɪkɪ-jáˡmáɲó
‘liver’	íŋ-gúˬrúmáni	ɪri-kóˡdómání
‘tent’	líí-táálaandálwa	ɪri-dááˡndárwá

H H
| |
mʊ-dzʊne > H H
| |
mʊ-dzʊne

HH# with long penult:
→ H + F, H in Tiriki (doublets attested)

		Tiriki	*Logoori*
H	‘infant’	íˬ-ndáána	ínˡ-dááná
	‘chicken flea’	vúˬ-lóólo	ékéˡ-róóró
F	‘chameleon’	íˬ-ɲáambu	íˡ-ɲáámbú
	‘gum’	vúˬ-líimbo	ʊvóˡ-ríímbó

H~F	‘ant’	líí˩-móoɲo ~líí˩-móóɲo	ɪrí!-móóɲó
	‘vegetable’	líí˩-súutsa ~ líí˩-súútsa	ɪrí!-súúzá
	‘key’	lú˩-fúuŋgu ~ lú˩-fúúŋgu	ɔró!-fóóngó
	‘squirrel’	ʃí˩-múuna ~ ʃí˩-múúna	ɪkí!-móóná
	Like í˩ŋgóxo with penult H~F puzzle		

Cases of unretracted final H: cl. 1a nouns

	Tiriki	*Logoori*
‘cousin’	mu-syaalá	mɔ-syaará
‘in-law’	mu-xwaasí	mɔ-kwaasi
‘sibling-in-law’	mu-lamwá	mɔ-ramwá
‘grandfather’	kuuká	guugá
‘uncle’	xootsá	koozá
‘grandmother’	kuuxú	góókɔ
‘aunt’	seenǰé	séénge
‘mother’	ɲina	ńnyá
‘father’	isé ~ ise	ísé

Originally HH# (a pattern?)
Lack of H_1 *in the singular* is related to lack of augment
H_1 comes *from* the augment

Not totally regular but frequent

Tiriki L → Logoori H 16 examples

	Tiriki	*Logoori*
‘blackjack’	lu-kohe	oro-góhe
‘fig tree’	mu-xuyu	ʊmʊ-kóyʊ
‘cold’	vu-tsiililu	vʊ-zíllʊ
‘whirlwind’	ʃi-kukuti	ɪkɪ-kógʊti
‘flat land’	ʃi-ɻeɭemo	eke-réremo
‘stalk’	ma-sakati	ama-ságati
‘sparrow’	lii-toondolitsi	ɪri-dóóndolizi
‘peak’	in-dooŋgoosi	en-dóóngoozi
‘woodpecker’	ʃi-xooŋoondi	en-góóngoondi
‘pot’	ʃi-paaɲdʒi, ʃi-páaɲdʒi, ʃi-pááɲdʒi	ɪkɪ-báanji
‘knife handle’	ʃi-ɭuuŋgu, ʃi-ɭuuŋgu, ʃi-ɭúúŋgu	ɪkɪ-rʊ́ʊ́ngʊ
‘gourd’	ʃi-saanda, ʃi-sáánda, ʃi-sáanda	ɪkɪ-sáánda

A developing tone change in Logoori: L words shift to the H class (rampant in the verb system, extant in nouns)

Summary:

86% of 413 cognate nouns are have strictly regular or reasonable regular correspondences (modulo H ~ F variation and spontaneous L→H in Logoori)

We can invent more sub-classes to label repeated trends in the remainder:

Tiriki HH > single-H (Logoori)

	Tiriki	*Logoori*
‘scar’	í˩˥-mbála	ɪm-bára
‘cheek’	í˩˥-ndáma	ín-dáma
‘hoof’	ím-bá˩˥káyu	ʊrʊ́-hágayʊ
‘chain’	mú-ɲó˩˥lólo	ʊmʊ́-nyólolo
‘amaranthus sp.’	líí-vó˩˥kóyi, líí-vókoyi	ɪri-vógoyi
‘fingernail’	líí˩˥-sáánda, líí-sáánda	ɪri-sáánda

And the opposite:

	Tiriki	*Logoori*
‘spleen’	lú-híima, líihíma	ʊrʊ́ꜜ-hí(í)má
‘skull’	ʃĩ-hááŋga	ɪkíꜜ-háángá
‘bone’	ʃĩ-kúúmba	kíꜜ-gʊ́ʊ́mbá
‘stupidity’	vú-hííŋgwa	ʊvʊ́ꜜ-yííngú

CV H>L

	Tiriki	*Logoori*
‘mouth’	mu-nwa	ómó˥-nwá
‘mortar’	ʃi-nu	ıkí-nó
‘metal’	ʃi-vya	ıkí-vyá

Longer HH#(Logoori) > L (Tiriki)

	Tiriki	*Logoori*
‘hippo’	iŋ-guvu	í˥ngóvó
‘seizure’	lu-tetʃe.la	ró-dé˥gérá
‘protrusion’	ʃi-kukuɲi	ıkı-gó˥góɲó
‘basket’	ʃi-hiinda, ʃi˯híinda	ıkí˥-hííndá
‘termite’	lii-fweete.le	ıri-fwéé˥déré
‘whydah’	ʃi-siimbiki.la	ıkı-síí˥mbííkírá

Plain old irregular

	Tiriki	*Logoori*
‘fog’	luumbi	ıl-lóómbı
‘milk cow’	i-twaasi	í-dwáasi
‘clay paste’	lu-tuumbi	ʊrʊ-dúumbi
‘mantis’	í-swéé˯néene	i-sweenene