

The tone system of Kam

1 Introduction: Kam, an Adamawa language (?)

- Niger-Congo language spoken in central-east Nigeria, Taraba State, Bali Local Government Area
- 5,000-11,000 speakers
- Classification (Adamawa? Benue-Congo?) is unclear (Lesage 2019c)
- Important links (linguistically or socially) with various groups
 - Jukun (Benue-Congo)
 - Mumuye (Adamawa)
 - Yendang (Adamawa)
 - Jirim (Chamba Daka, Benue-Congo (?))
 - Hausa (Chadic)
 - Fulfulde (Atlantic)

2 Structure of the presentation

3. TBU = the syllable
4. Tone inventory
5. Phonological tonal processes
6. Grammatical tone
7. Phonetic tonal processes

3 TBU = the syllable

- Heavy and light syllables (which can be phonetically long) can both carry either a level or a contour tone.

- (1) nǐzá ‘nine’
 kwî ‘walking stick’
 zâ ‘frog’

4 Tone inventory

- Surface contrast between three levels: L, M, and H
- Contour tones: LH and HL

	L	M	H	LH
L				
M	m̀p̀ò̀m ‘rain’ m̀p̀ò̀m ‘wing’			
H	ẁò ‘blood’ ẁó ‘dog’	à̀nā ‘today’ à̀ná ‘father’		
LH	ǰ̀à̀sí ‘pour’ ǰ̀í̀zà ‘nine’	n/a	ǰ̀é̀ní ‘refuse’ ǰ̀í̀zà ‘nine’	
HL	k̀ù̀b ‘become weak’ k̀ù̀b ‘reedfish’	kp̀ā̀b ‘mix’ k̀ù̀b ‘reedfish’	f̀ó̀g ‘farm’ k̀ù̀b ‘reedfish’	n/a

- Notes on contrasts
 - Contours are combinations of L and H tones due to elision of a syllable
 - Contrasts with contours are difficult to find because
 - LH is very rare (attested in 3 nouns)
 - HL is rare (attested in 8 nouns)
- M tones are fairly rare (adjectives are not taken into account in these counts, since they are always morphologically complex, either synchronically or diachronically, cf. Lesage 2019a):

	N of stems with M tone	% of stems with M tone	Total stems
Common Nouns	30	6%	509
Proper nouns	2	5%	37
Verbs	23	9%	249
Other	18	21%	86
Total	73	8%	881

- Underlyingly, one could argue, Kam only has L and H tones. M tones are likely historically, and in some cases synchronically, derived from LH tones. Indications of this are the following:
 - Symmetry: on the surface there is a gap in the occurrence of LH contours (there are only three cases) vs. HL contours.

- There is no clear evidence of a contrast between LH and M tones.
- Some forms of the verb *mà* ‘to give’ have integrated patient pronouns with H tone in an L-toned verb, which has resulted in M tones on the surface:

(2)	<i>mà</i>	+	<i>m^L</i>	→	<i>mām^L</i>
	give		1SG.NON-S		give:1SG.NON-S
	‘give me’				
(3)	<i>mà</i>	+	<i>á^L</i>	→	<i>mā^L</i>
	give		2SG.NON-S		give:2SG.NON-S
	‘give you’				
(4)	<i>mà</i>	+	<i>ú^L</i>	→	<i>mō^L</i>
	give		3SG.NON-S		give:3SG.NON-S
	‘give him’				
(5)	<i>mà</i>	+	<i>í^L</i>	→	<i>mī^L</i>
	give		3PL.NON-S		give:3PL.NON-S
	‘give them’				

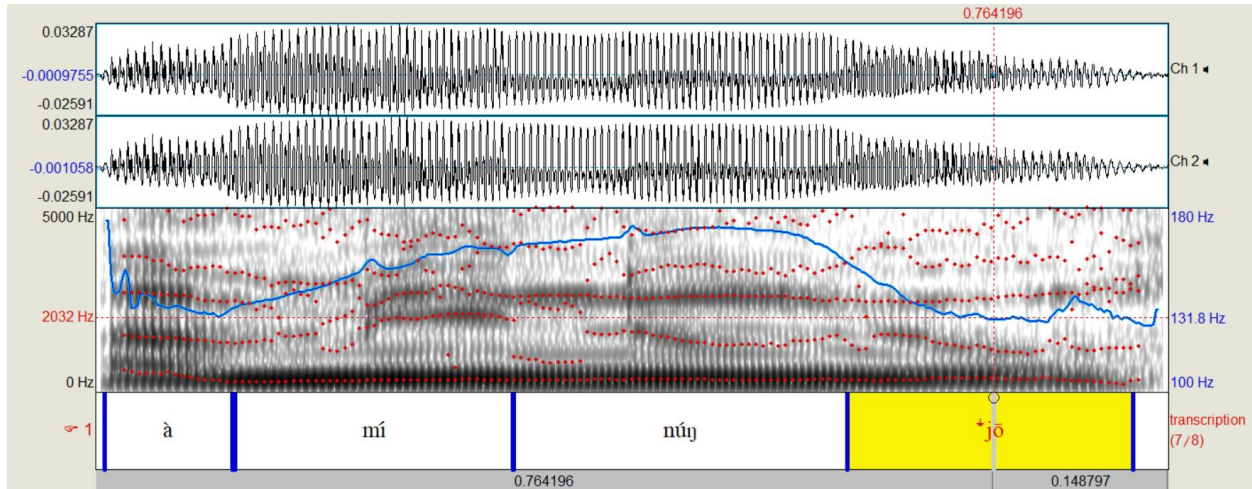
- Only floating L tones are attested. So far, floating H tones have not been attested. Floating L tones are usually either (1) the result of a delinked L tone due to H or M tone spread or (2) attached to some grammatical items, such as all non-subject pronouns and the indefinite modifier *mí^L*.

5 Phonological tonal processes

- H tone spread, delinking any following L tones and M tones. Tone spread is in principle optional but occurs almost always.

(6)	<i>sírá</i>	<i>á⁺líb</i>		
	<i>sírá</i>	<i>àlíb</i>		
	hair	head		
	‘head hair’			
(7)	<i>ní</i>	<i>jó⁺</i>	<i>á</i>	<i>bā</i>
	<i>ní</i>	<i>jō</i>	<i>á</i>	<i>bā</i>
	people	PL	PROX	one:PROX
	‘These are people.’			

- (8) à mí núŋ⁺ jō
 à mí (à)nùŋ jō
 dew eye PL
 ‘teardrops’



- M tone spread (delinking any following L tones)

- (9) ñtǣ̃ ãr̃
 ñtǣ̃ àr̃
 star stone
 ‘star of the stone’

- Floating L tones (and delinked M tones) cause downstep.
 - See above for examples of delinked L and M tones causing downstep (6)-(8)(7).
 - As mentioned in the section on tone inventory, some grammatical morphemes feature a following floating L tone. A good example of this, apart from the ones given before, is derivation of attributive adjectives from verbal stems, which is done according to the following templates with a H á-prefix followed by a floating ^L tone :

- (10) CVC verbs → á(n)^L -V/H-í
 lèm ‘to become good’ → á⁺lémí ‘good’
- CV verbs → á^L-V/H
 wū ‘to become ripe’ → á⁺wú ‘ripe’

- Reduplication is segmentally partial reduplication, but tonally full reduplication. In the following example, the segmental form of the verb *mùsí* ‘to fill’ is partially reduplicated, giving the partial copy /mù/. Tonally, however, *mùsí* is fully reduplicated, which should give the melody L-H-L-H. This melody is crammed into a trisyllabic *mùmú⁺sí*, which is realized with a downstepped H tone on the final syllable.

(11) mùmú⁺sí
~mù-sí
PRED~become.full-CAUS
‘full, filled up’

Appendix/supplementary materials

6 Grammatical tone

- TAM and negation marking on verbs and pronouns: replacive tone on verbs and 1SG and 2SG pronominals:

TAMP category	Verb Tone
Affirmative non-future (perfective and imperfective constructions)	H
Affirmative future (with or without patient)	HL
Negative perfective without patient	Lexical tone
Negative perfective with patient	H
Negative imperfective	H (? – this needs to be checked)
Negative future	H
Imperative	Lexical tone (and free variation)
Content interrogative with patient	Lexical tone

TAM category	Pronoun Tone
Perfective	H
Imperfective	L
Future (with or without patient)	H
Negative non-future (with or without patient)	L
Negative future	H

Overview of positive TAM constructions (cf. Lesage 2019b):

Imperfective:	n̄/à/NP	rì	V/H (?)	(NP)	
Perfective:	ń/á/NP		V/H	(NP)	(-à)
Future 1:	ń/á/NP		V/HL	(NP)	(V)
Future 2:	ń/á/NP		V/HL~		

Overview of negative TAM constructions:

Perfective 1:	n̄/à/NP	(màg)	V		h̄h̄
Perfective 2:	n̄/à/NP	(màg)	V/H	NP	h̄h̄
Imperfective:	n̄/à/NP		V/H	NP	h̄h̄
Future:	ń/á/NP	rî	V/H	NP	(rî) h̄h̄

- Case marking on pronominals

Person-number	Subject index 1 (H) (PFV, FUT, NEG.FUT)	Subject index 2 (L) (IPFV, NEG.N-FUT)	Non-subject index (H ^L)
1SG	H: ń	L: ñ	H ^L : m̄ ^L
2SG	H: á	L: à	H ^L : (n)á ^L (?)
1PL	L: jùrù L: ì (Only in Lowlands Kam)		H ^L : jú ^L rú ^L
2PL	L: jò		H ^L : jò ^L
3SG	LH: àwú /<>_ H: ú /elsewhere		H ^L : ú ^L
3PL	LH: àjí /<>_ H: í /elsewhere		H ^L : í ^L
Logophoric	H: í (?)		H ^L : í ^L

- Deverbal derivation
 - Replacive L tone in verbal derivation with a *-tí*, *-sí* or *-rí* suffix (e.g. causative)

(12) f̄j̄b/L + tí → f̄j̄p-tí or [f̄j̄p̄-tí]
 become.hot/CAUS CAUS become.hot/CAUS-CAUS
 ‘to boil’

- Replacive H tone in stative verbal derivation

(13) vég/H + ájì → vég-ájì
die/STAT STAT → die/STAT-STAT
'dead'

- Deverbal participant and action/state nominalization with replacive H tone:

(14) à + zùb/H → à-zúb
NLZ steal/NLZ NLZ-steal/NLZ
'thief'

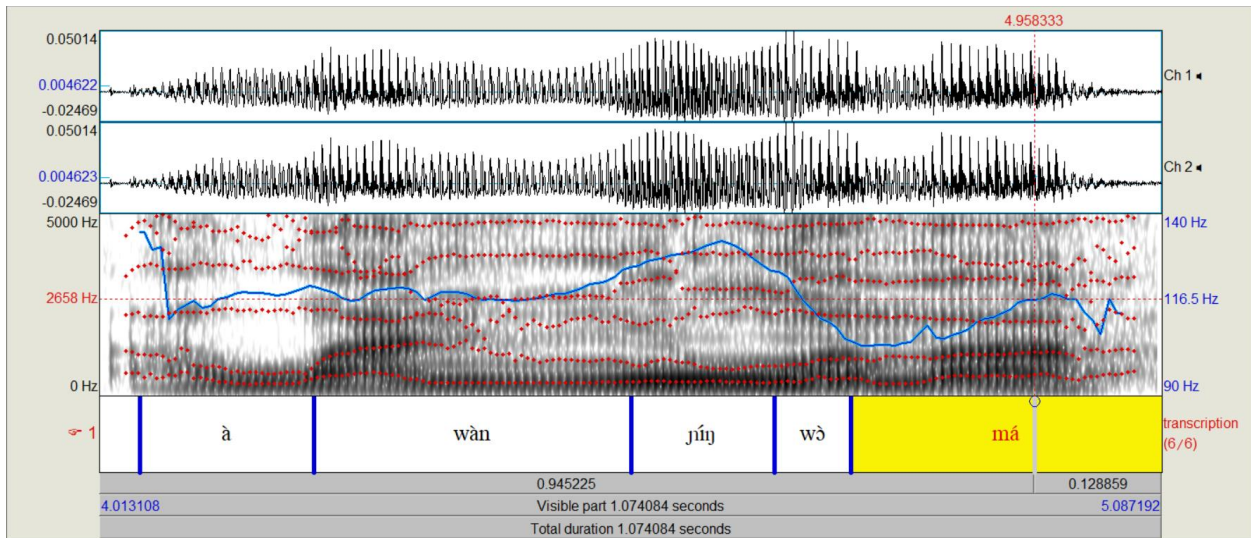
(15) à + lèm/H + rì → à-lém-írî
NMZ good/NMZ NMZ NMZ-good/NMZ-NMZ
'goodness'

- Deverbal adjectivization (see section on floating L tones in 'phonological tonal processes' above, p. 4)

7 Phonetic tonal processes

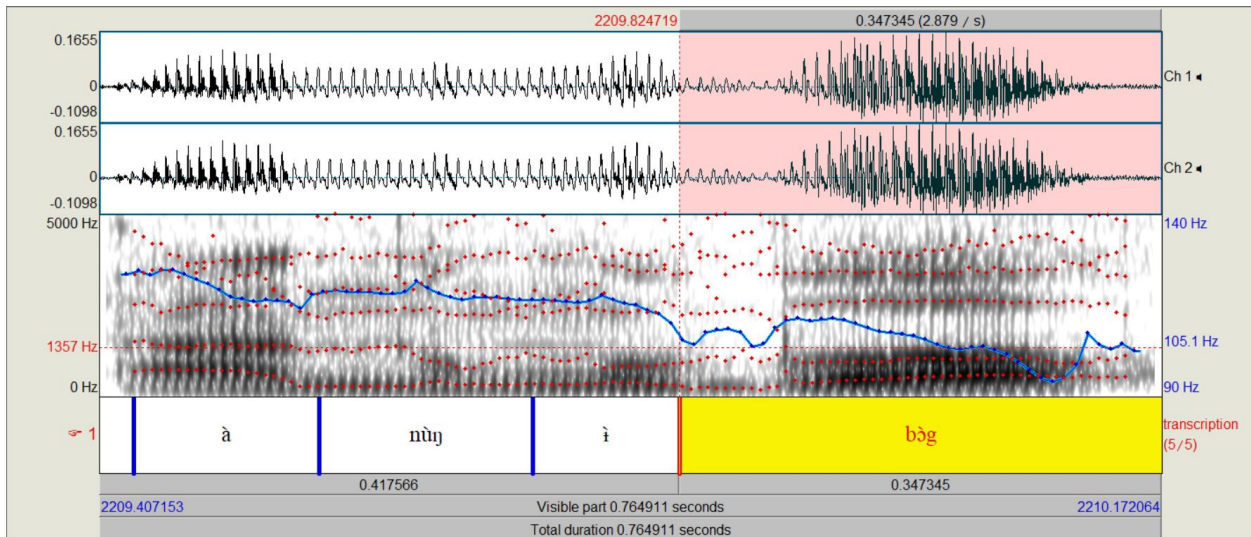
- Downdrift after L

(16) nìm àwàn jí ηwòm á
nìm àwàn jí àηwòm á
1SG.ID king people-Kam COP
'I am the king of Kam.'



- After a succession of two lows, a following low can be phonetically lowered:

- (17) [lámìkär] ‘earwax’
 [bèr ǐʃɔ̃b] ‘haunted tree’
 [àʃäg ʃürɔ̃g] ‘horn of elephant’
 [ànùŋ ǐbɔ̃g] ‘ankle’



8 One more currently unexplained phonological rule: M → L/M_#

- A currently unexplained phonological rule: When two M tones meet before a pause, the second M tone will be realized as L. The explanation for this is probably to be sought in the presumed LH pattern underlying M tones, although the exact process at work is currently still unclear.

- (18) mē tʃũ (cf. miē tʃũ á bà ‘This is a mother of an uncle.’)
 miē tʃũ
 mother uncle
 ‘mother of the uncle.’
- (19) tʃũ mè
 tʃũ miē
 uncle mother
 ‘uncle of the mother’

9 References (available at <http://llacan.vjf.cnrs.fr/AdaGram/talks.html>)

- Lesage, J. (2019a). *Adjectives in Kam*. Paper presented at the 49th Colloquim on African Languages and Linguistics (CALL), Leiden.
- Lesage, J. (2019b). *Tense, aspect, modality, and (some) negation in Kam (and some hidden information structure)*. Presentation presented at TAM systems in Adamawa Languages, Universität Hamburg.
- Lesage, J. (2019c). *The position of Kam (Central-Eastern Nigeria) within Niger-Congo (And the overestimation of genealogical uniformity in African languages)*. Presented at Approaches to the study of language variation and change in indigenous minority languages (ASIMIL), Leiden.