The 10 tonemes of Ticuna, an Amazonian oddity

MAIN CLAIM

San Martín de Amacayacu Ticuna (isolate (?), Western Amazonia) features:

- **10 tonemes in stressed syllables**
- **5 tonemes in unstressed syllables**

→ claim as to *phonological* (NOT just phonetic) units

→ typologically rare, areally unique

INTRODUCTION
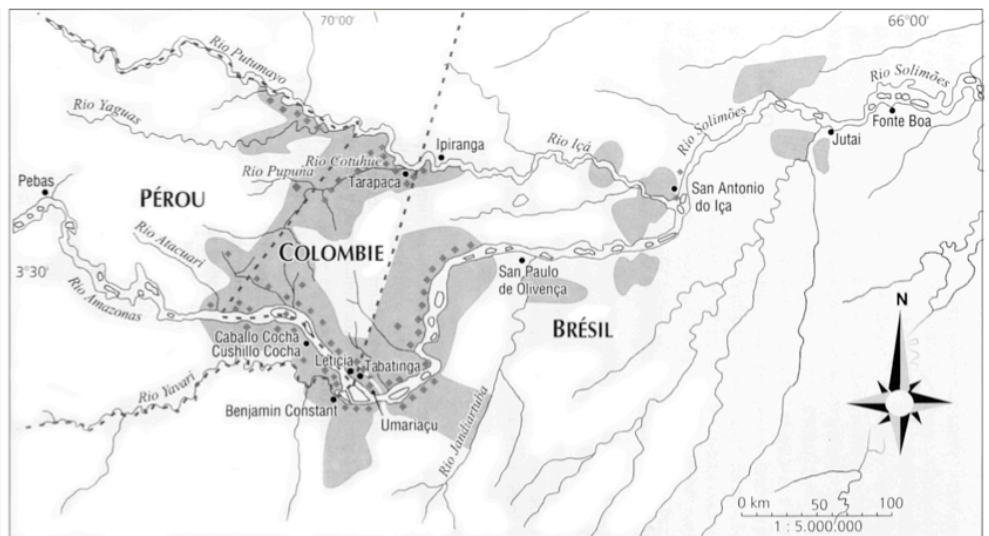SOME PHONOLOGICAL BACKGROUND
ANALYSIS—STRESSED SYLLABLES
ANALYSIS—UNSTRESSED SYLLABLES
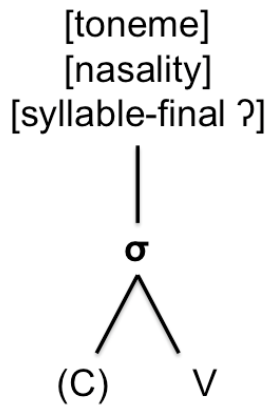DISCUSSION
CONCLUSION

INTRODUCTION

Language

Légende
- villes
- territoire tikuna
- principaux établissements tikuna

Dessin : D. Kergosien 2007
Source : Acosta Muñoz 1999
Goulard (2009)

SOME PHONOLOGICAL BACKGROUND

Structure of SMAT syllable

[toneme]
[nasality]
[syllable-final ʔ]

|

σ

(C)   V

p	t	t͡ɕ	k	kʷ~ʍ
b	d	d͡ʑ	g	w
			ŋ	

i		ɯ		u
	e		o	
a̰ɪ		a		a̰ʊ̰

+ demarcative stress (1st syllable of independent morphemes)

ANALYSIS
STRESSED SYLLABLES

Phonetic sample A

| **pa**:³⁶	-ka¹	to.cling-liver	'to cling at so's liver'
tu:⁵²	=ta⁴	to.drag=FUT	'to drag (fut.)'
pa:⁴³	=ta⁴	to.be.dry=FUT	'to be dry (fut.)'
pa:³⁴	=ta⁴	to.be.nubile=FUT	'to be nubile (fut.)'
ʔu:³³	=ta⁴	to.say=FUT	'to say (fut.)'
ʔa:³¹	=ta⁴	to.burn=FUT	'to burn (fut.)'
ka:²²	=ta⁴	to.stab=FUT	'to stab (fut.)'
pa:²¹	=ta⁴	to.be.tired=FUT	'to be tired (fut.)'
pa:̰	=ta⁴	to.cling=FUT	'to cling (fut.)'
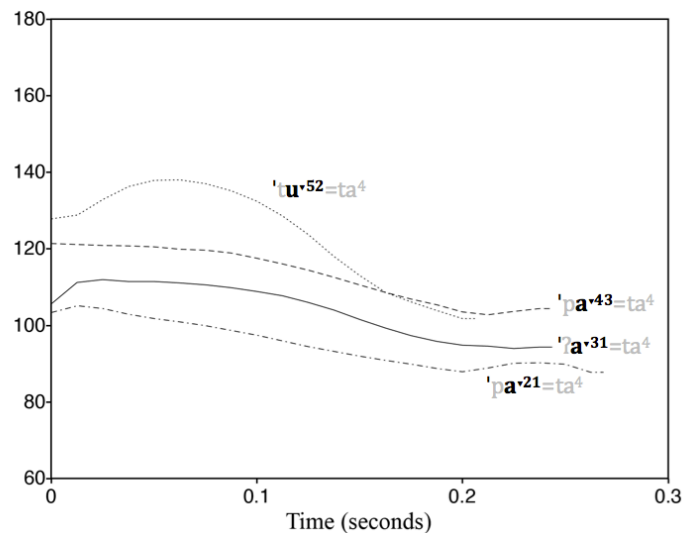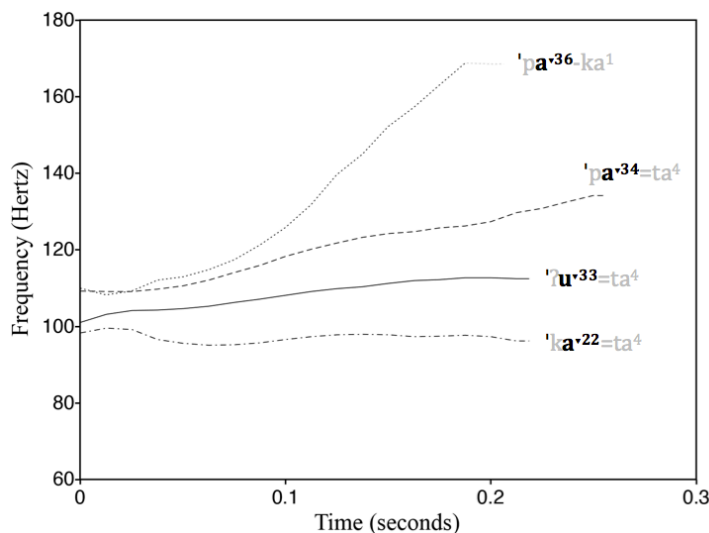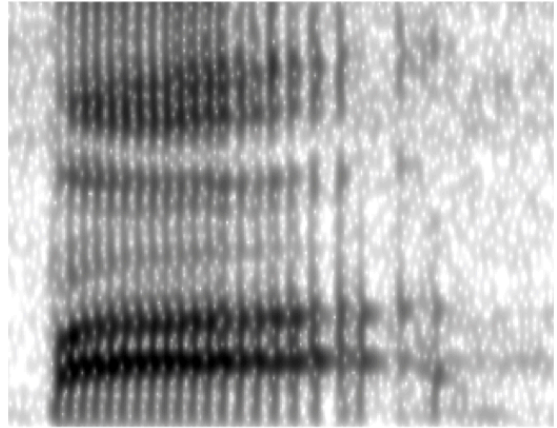
paː(=ta⁴)

| pa | a̰ |

Phonetic sample B

t͡ɕa³=nã³=	ŋoː:³⁶	-ka¹	1SG=3=to.bite-liver	'I bite its liver'
t͡ɕa³=nã³=	tu:⁵²	=taʔ¹	1SG=3=to.drag=too	'I drag it too'
t͡ɕa³=nã³=	mũ:³⁴	=taʔ¹	1SG=3=to.encircle=too	'I encircle it too'
t͡ɕa³=nã³=	mũ:³³	=taʔ¹	1SG=3=to.weave=too	'I weave it too'
t͡ɕa³=nã³=	mũ:³¹	=taʔ¹	1SG=3=to.harpoon=too	'I harpoon it too'
t͡ɕa³=nã³=	mũ:²²	=taʔ¹	1SG=3=to.free=too	'I free it too'
t͡ɕa³=nã³=	ŋa:²¹	=taʔ¹	1SG=3=to.scold=too	'I scold it too'
t͡ɕa³=nã³=	mũ:̰	=taʔ¹	1SG=3=to.eat=too	'I eat it too'
t͡ɕa³=nã³=	ʔɯ:⁴³	=taʔ¹	1SG=3=to.boil=too	'I boil it too'

σ-initial vs σ-final creaky-voice-ness (in conservative varieties)

| t͡ɕ | o | o̰ |

'to be white'

| t͡ɕ | o̰ | o |

'to open (a canoa)'

31
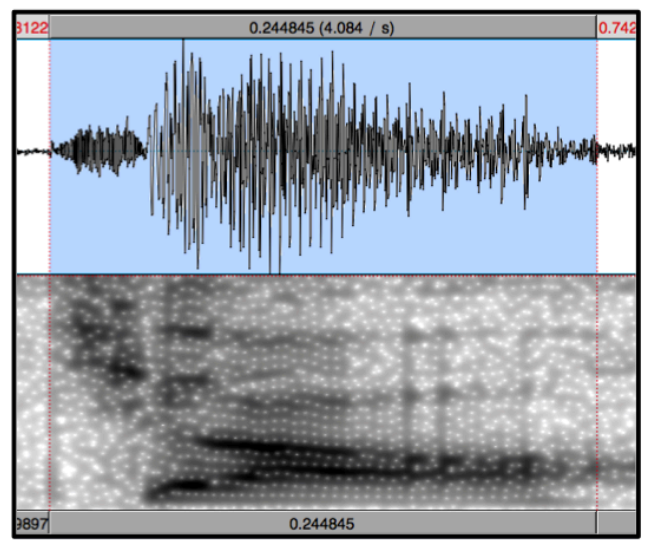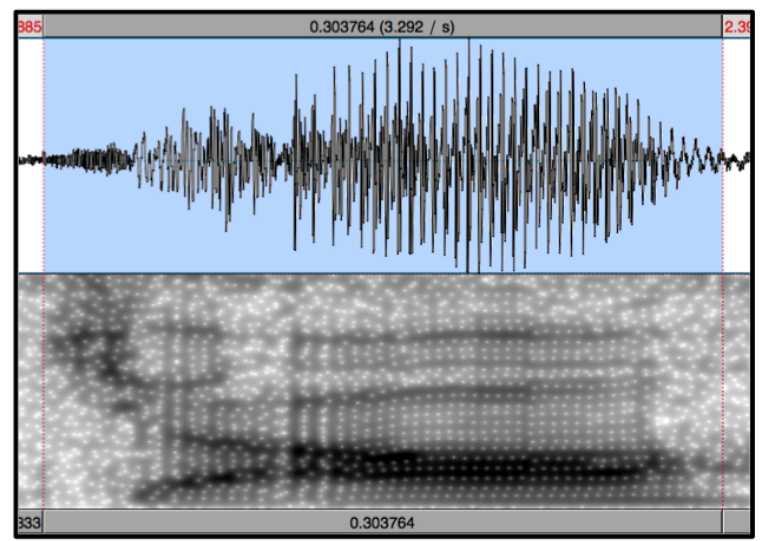
Sets of tonal minimal pairs

Segments	Toneme									
	36	52	34	43	33	31	22	21	t.creaky.voice	i.creaky.voice
pa			'to be full'	'to be dry'	'dad !'			'to be tired'	'to cling on'	
mã			'to chop up'	'to be sad'	'mum !'		'to sprout'		'to kill'	
mũ			'to be numerous'		'to weave'	'to spear'	'to send'		'to eat (a fruit)'	
ʈo̰				'to plant'		'to fetch'	'to sit'	'other'	'kinkajou'	
ʈu		'to drag'				'to perch'	'to choke'		'tree sp.'	
ɲã̰ḭ	'other'		'to be hot'	'to be spicy'		'tree'		'other'	'to tie'	
tɕi			'to stand'	'to chew'				'tree sp.'	'to be tasty'	
tɕo̰			'to hang'	'to stay'					'to be white'	'to open'
ŋu		'owl sp.'			'to arrive'	'to fall'	'tree sp.'	'to ferment'	'to learn'	
ʔo̰				'to vanish'	'to die (a fire)'	'to be lazy'	'to fruit'		'to be wounded'	

ANALYSIS
UNSTRESSED SYLLABLES

Phonetic sample

pe$^{33?}$	**-wa^5**	'at	you (pl.)'
pe$^{33?}$	**-te^4**	'your (pl.)	husband'
pe^{33}	**-mã^3**	'your (pl.)	path'
pe^{33}	**-ga^1**	'your (pl.)	rib'
tɕau̯^{21}	**-pa̰**	'my	skirt'

Sets of tonal minimal pairs

Segments	Toneme				
	5	4	3	1	creaky
nã		3CLASSII-IV.SBJ=	3CLASSII-V=	PRED.CLASS*na^1*=	
ta		3CLASSI.SBJ=	1PL.SBJ=		-VICIOUS.HABIT?
pe	2PL.BEN=		2PL.SBJ=		-bait
ʔuĩ	-BEN	-NMLZ.CIV	-ACC	-TRANSFORMATIVE	
i	PROG=		PRED.CLASS*i^3*=	PRED.CLASS*i^1*=	

CONCLUSION

Toneme inventory			
in stressed syllables		**in unstressed syllables**	
36	pitch	5	pitch
52	—	4	—
34	—	3	—
43	—	1	—
33	—	creaky voice	phonation
31	—		
22	—		
21	—		
terminal creaky voice	phonation		
initial creaky voice	—		

References

Anderson D. 1962. *Conversational Ticuna*. SIL–University of Oklahoma–Yarinacocha Press. Peru.

Anderson L. 1959. *Ticuna vowels with special regard to the system of five tonemes.* Publicações do Museu nacional. Série lingüística especial 1:76-119. Rio de Janeiro.

Anderson D. & L. Anderson. 2017. *Diccionario ticuna-castellano.* Serie lingüística peruana 57. ILV. Lima.

Bauernschmidt A. 1965. *Amuzgo syllable dynamics.* Linguistic Society of America. Language 41(3):471-483.

Carvalho F. O. de. 2009. *On the genetic kinship of the languages Tikúna and Yurí.* Revista Brasileira de Linguística Antropológica 1:247-268.

Goulard J.-P. 2009. *Entre Mortales e Inmortales: el ser según los Ticuna de la Amazonía.* CAAAP–IFEA. Lima.

Goulard J.-P. & M. E. Montes Rodríguez. 2013. *Los yurí/juri-tikuna en el complejo socio-lingüístico del Noroeste Amazónico.* Llames 13:7-65.

Hyman L. 2010. *Amazonia and the Typology of Tone Systems.* UC Berkeley Phonology Lab Annual Report.

Merrifield W. R. & Edmondson J. A. 1999. *Palantla Chinantec: Phonetic Experiments on Nasalization, Stress, and Tone.* The University of Chicago Press. International Journal of American Linguistics 65(3):303-323.

Montes Rodríguez M. E. 1995. *Tonología de la lengua ticuna (Amacayacu).* Lenguas aborígenes de Colombia. Descripciones 9. Colciencias–Universidad de los Andes. Bogotá.

Montes Rodríguez M. E. 2004-2005. *Fonología y dialectología del tikuna.* Amerindia 29/30: 97-116.

Santos Angarita A. A. 2005. *Hacia una dialectología tikuna del Trapecio Amazónico colombiano.* Tesis de pregrado. Universidad Nacional de Colombia Sede Leticia. Carrera de lingüística.

Seifart F. & Echeverri J. Á. 2014. *Evidence for the Identification of Carabayo, the Language of an Uncontacted People of the Colombian Amazon, as Belonging to the Tikuna-Yurí Linguistic Family.* PLoS ONE 9(4): e94814. doi:10.1371/journal.pone.0094814.

Simons G. & C. Fennig (eds.). 2018. *Ethnologue: Languages of the World, Twenty-first edition.* Dallas, Texas: SIL International. Online version: http://www.ethnologue.com.

Soares M. F. 1996. *Regulação rítmica e atuação do OCP em Tikuna*. Letras de Hoje 31(2):7-26. Porto Alegre.

Tang K. E. 2008. *The Phonology and Phonetics of Consonant-Tone Interaction.* PhD dissertation. UCLA.

Yang T. & Edmondson J. A. 2008. *Kam.* In Diller A. & al. (ed.). 2008. *The Tai-Kadai Languages.* Language Family Series. Routledge. Chapter 19:507-584.