

**Aspects of tone in the Yucunany dialect of Mixtepec Mixtec\***

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**1. Introduction**

- The Mixtepec Mixtec language is spoken by 12,000 people (Ethnologue, 2004). The speech community sits on the border between the Mixteca Alta and Mixteca Baja areas. The language is spoken in San Juan Mixtepec and many smaller surrounding towns in the ex-districts of Juxtlahuaca and Tlaxiaco.
- Previous discussions of this language are found in Pike & Ibach (1978) and Josserand (1983).
- Our consultant is a 23 year-old native speaker of Mixtepec Mixtec from the town of Yucunany and a Native American studies major at UC Berkeley.
- In Mixtec languages, roots have the shape CVV or CVCV. This disyllabic structure is referred to as the ‘couplet’ in the Mixtec literature (see, for example, Josserand 1983).

**2. Tone inventory**

(4)	3 tones:	Low (L)	tìnà <sup>1</sup> ‘dog’ ndàà ‘flat’	tzàtù ‘spicy’ <u>ĩñù</u> ‘six’
		Mid (M)	aa ‘yes’ <u>uu</u> ‘yes’	luu ‘little’ <u>ii</u> ‘one’
		High (H)	ncháá ‘blue’ <u>íi</u> ‘hail’	vílú ‘cat’ kóní ‘female turkey’

**3. Tone patterns on monomorphemic couplets**

(5)	L	CVV	chùù ‘star’ ndàà ‘flat’	<u>ìi</u> ‘nine’ tzà’ù ‘fifteen’
		CVCV	sòkò ‘shoulder’ ùvì ‘two’	sùtù ‘priest’ ùtzà ‘seven’
	M	CVV	ngwii ‘fox’ luu ‘little’	ve’e ‘house’ <u>u’u</u> ‘five’
		CVCV	mula ‘mule’ yachi ‘near’	machu ‘mule’

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\* We would like to thank our consultant, Tìsu’mà X, for his time and patience. We also thank Wendianne Naña, whose participation in elicitation sessions has greatly improved our transcriptions. This research has been funded by the Survey of California and Other Indian Languages at UC Berkeley.

<sup>1</sup> In this paper, we use the Mixtec orthography developed by our working group. In this orthography, <’> marks glottalization of preceding vowel (often realized as a glottal stop after the vowel), Mid tone is unmarked, and nasal vowels are underlined. Vowel length is not contrastive; sequences of like vowels are used to accommodate tone marks.

H	CVV	ncháá ‘blue’	nchá’á ‘salsa’
	CVCV	kóló ‘male turkey’ ndúchá ‘goat’	lóchí ‘vulture’ kóní ‘female turkey’
LM	CVV	cháa ‘man’ ñà’a ‘thing’	kàa ‘metal’ sò’o ‘ear’
	CVCV	tika ‘cricket’ títzi ‘stomach’	tzànu ‘brother’s wife’ ndika ‘pine cone’
LH	CVV	stáá ‘tortilla’ kòó ‘snake’	nùú ‘face’ kò’ó ‘plate’
	CVCV	kùmí ‘four’ tzátú ‘coffin’	námá ‘soap’ sàví ‘rain’
MH	CVV	yo’ó ‘rope’ chu’ú ‘spider’	che’é ‘cute’ ñà’á ‘woman’
	CVCV	yatá ‘old’	
HM	CVV	pái ‘rebozo’	xí’a ‘hawk’
	CVCV	tzóko ‘possum’ ñáni ‘brother’	tzíka ‘far’ ká’nu ‘big’
HL	CVV	cháì ‘chair’ chá’à ‘short’	kwá’á ‘red’ nchá’i ‘black’
	CVCV	not attested	
ML	CVV	saà ‘bird’	yoò ‘drinking vessel’
	CVCV	xitò ‘uncle’ yu’và ‘ice’	tutù ‘paper’ u’và ‘salty’
LML	CVV	xààà ‘chin’	xìòò ‘dress, skirt’
	CVCV	ndàakù ‘broom’	
LHM	CVV	tzááa ‘new’	yùúti ‘sand’
	CVCV	yòóso ‘metate’ kàása ‘sister’s husband’	tíichi ‘avocado’
MLH	CVV	viíí ‘healthy-looking’	
	CVCV	yosòó ‘grassy plain’ tikwàá ‘orange’	ixíí ‘hair’ ikiíí ‘squash’
HML	CVV	not attested	
	CVCV	ánaà ‘heart’ yúkuù ‘yoke’	tzátuù ‘pants’ súkuù ‘high’

HLH	CVV	chííí	‘fingernail’	ííí	‘skin’
		kwííí	‘narrow’	kwííí	‘green’
	CVCV	xííí	‘hat’		

#### Unattested tone patterns on monomorphemic lexical items

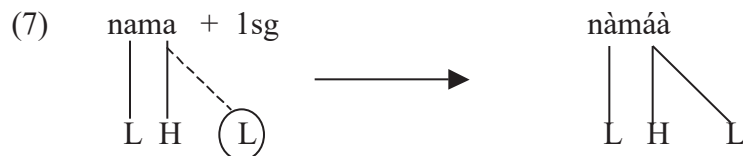
- Pike & Ibach (1978) report that HM and MH contours do not occur on a single syllable; we have also not found these contours in the Yucunany dialect.
- There is also an apparent ban against adjacent identical tones in lexical items (e.g. LLH).
- We have also not found the tone patterns LMH, LHL, MLM, MHL, or HLM.

#### 4. Tonal morphology

-1sg has a floating L tone allomorph

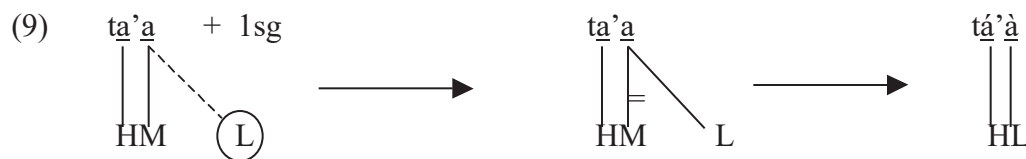
H-final roots: L tone associates, no delinking

(6)	nà má	‘soap’	nà má à	‘my soap’
	kwííí	‘narrow/thin’	kwííí	‘I am narrow/thin’
	xííí	‘hat’	xííí	‘my hat’
	ví lú	‘cat’	ví lú ú	‘my cat’



M-final roots where preceding tone is M or H: L tone associates, M delinks

(8)	la'la	‘mucus’	la'là	‘my mucus’
	ve'e	‘house’	ve'è	‘my house’
	tá'a	‘relative’	tá'à	‘my relative’
	xá'nú	‘cigarette’	xá'nù	‘my cigarette’



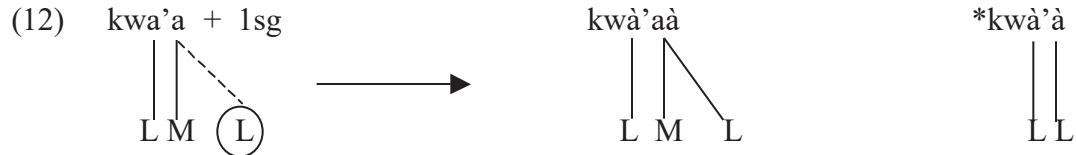
Exception: words with the tone pattern LHM do not lose their mid tone

(10)	yùúti	‘sand’	yùútiì	‘my sand’
	tzááku	‘corral’	tzáákuù	‘my corral’
	yòóso	‘metate’	yòósoò	‘my metate’
	kàása	‘sister’s husband’	kàásaà	‘my sister’s husband’

- A possible explanation is that there may be two types of M: underlying M, and unmarked, which surfaces M by default. In this analysis, marked M remains when the floating L of the 1sg is added, while unmarked M does not surface when the floating L is added. This would still not explain why LHM always have marked M while other words ending in H-M have unmarked M.

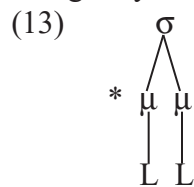
M-final roots where preceding tone is L: L tone associates, M does not delink

(11)	kwà'a	'man's sister'	kwà'aà	'my sister'
	sì'i	'leg'	sì'ii	'my leg'
	títzi	'stomach'	títzii	'my stomach'
	kàa	'metal'	kàaà	'my metal'



-When the L-toned first person marker associates to a root whose tonal melody ends in L-M, the M is not deleted. One possible analysis is that the Obligatory Contour Principle (Leben 1973, 1978, Goldsmith 1976) is active in this language, banning sequences of L tones in a single syllable. Deleting the M would have yielded a sequence of L tones in these words.

Obligatory Contour Principle (OCP)



Roots that end in L tone, instead of taking the floating L tone in the 1sg, take yù

(14)	chá'a	'short'	chá'àyù	'I am short'
	chái	'chair'	cháyù	'my chair'
	tutù	'paper'	tutùyù	'my paper'
	sòkò	'shoulder'	sòkòyù	'my shoulder'

-Note that this allomorphy maintains a distinction between 1sg and unmarked forms. If L-final roots took the floating L tone of the 1sg, the 1sg forms would be homophonous with the unmarked form of the roots. In the dialect described by Pike & Ibach (1978), the 1sg is, in fact, homophonous with the unmarked form of L-final roots. Pike & Ibach give -yù as a 1sg polite suffix; our consultant does not distinguish polite from familiar in the 1sg.

-Pike & Ibach (1978) appear to assume that yù is a suffix, but in Yucunany, yù can occur after noun+adjective. In these cases, the choice of the floating L tone vs. yù allomorph depends on the final tone of the adjective, irrespective of the tones of the noun.

L-final vs. H-final adjectives with L-final root: allomorph selected based on adjective's final tone

(15)	nchá'i	'black'	tìnà nchá'iyù	'my black dog'
	ncháá	'blue'	tìnà nchááà	'my blue dog'

L-final vs. M-final root followed by L-final adjective: *yù* occurs regardless of noun's final tone

(16)	kwikà	'comb'	kwikà nchá'iyù	'my black comb'
	ve'e	'house'	ve'e nchá'iyù	'my black house'

## 5. Tone changes

Low tone spread: L-H surfaces as L-LH

-Perseveratory Low Tone Spread is also documented in Chalcotongo Mixtec (Buckley 1991).

2sg familiar *-gú* surfaces with H tone following H or M

(17)	tikwàá	'orange'	tikwàágú	'your orange'
	xá'nu	'cigarette'	xá'nugú	'your cigarette'
	tzàáku	'corral'	tzàákugú	'your corral'
	kàa	'metal'	kàagú	'your metal'

Low Tone Spread applies to the 2sg familiar suffix when preceded by L

(18)	cháì	'chair'	cháìgùú	'your chair'
	chá'à	'short'	chá'àgùú	'you are short'
	ánaà	'heart'	ánaàgùú	'your heart'
	yuchi	'knife'	yuchigùú	'your knife'

-Low Tone Spread also appears to apply within lexical items. There is no contrast between L-H and L-LH in roots, and /L-H/ surfaces as [L-LH].

Narrow tonal transcriptions of CVCV LH-final roots

(19)	/kùmi/ -->	[kùmi]	'four'	/nàma/ -->	[nàmàá]	'soap'
	/tzàtù/ -->	[tzàtùú]	'box'	/sàví/ -->	[sàvíí]	'rain'

### Gradient smoothing

-In L-H-H sequences, the first H is lowered to M. This phenomenon was documented in Chalcotongo Mixtec by Hinton et. al. (1991).

L-H-final roots, when followed by the H-toned 2sg familiar suffix, undergo gradient smoothing

(20)	chíí	'fingernail'	chíígú	'your fingernail'
	kwíí	'narrow/thin'	kwíígú	'you are narrow/thin'
	tikwàá	'orange'	tikwàagú	'your orange'
	námá	'soap'	nàmagú	'your soap'

## 6. Conclusion

-The Yucunany dialect of Mixtepec Mixtec has a three-tone system where one to three tones are mapped onto disyllabic couplets.

-Like Chalcotongo Mixtec, the Yucunany dialect has Low Tone Spreading and Gradient Smoothing rules.

-While both the San Juan Mixtepec and Yucunany varieties of Mixtepec Mixtec use a floating Low tone to mark 1sg, in Yucunany there is a separate, segmental (*yù*) allomorph that is used when the 1sg form would otherwise be homophonous with the unmarked form. In San Juan Mixtepec, this homophony is tolerated, and the *-yù* suffix marks a semantic distinction (a polite form of the 1sg).

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