

FROM OVERT TONAL CONTRAST TO PHONATION AND COVERT TONAL CONTRAST IN QUIAVINÍ
ZAPOTEC

Zapotec varieties spoken in the Tlacolula Valley, Oaxaca, are closely related, yet their tonal and phonation inventories differ significantly. For instance, the Zapotec varieties of San Lucas Quiaviní (henceforth SLQZ) and San Pablo Güilá (SPGZ) are mutually intelligible (Lopez Cruz 1997: 10), but differ in tonal and phonation contrasts with SLQZ adding breathy voice to its phonation inventory (Chávez-Peón 2010). Correspondences are even more complicated with both low and rising tones in SPGZ corresponding to a low tone in SLQZ. Superficially it appears that SLQZ has merged the tonal contrast between these two tones, but we show that consideration of phonation types and the behavior of a low tone in SLQZ supports regular correspondences. In this paper we present an analysis of the loss of overt tonal contrasts in the emergence of breathy voice as a contrastive phonation type and the development of an abstract tonal contrast.

First, a modal vowel with a rising tone in SPGZ ((1) - (4)) corresponds to a modal low-toned vowel in SLQZ, while a modal low-toned vowel in SPGZ corresponds to a breathy low-toned vowel in SLQZ ((5) - (9)). The orthographic conventions are: low (*a*), high (*á*), rising (*ǎ*), and falling (*â*) for tones, and modal (*a*), checked (*a'*), rearticulated (*a'a*) and breathy (*ah*) for phonation types:

	SPGZ	SLQZ	gloss		SPGZ	SLQZ	gloss
(1)	<i>-gě</i>	<i>-ge</i>	‘insult’	(5)	<i>ru</i>	<i>ruh</i>	‘cough’
(2)	<i>bűny</i>	<i>buny</i>	‘person’	(7)	<i>riny</i>	<i>rehny</i>	‘blood’
(3)	<i>dǒb</i>	<i>dub</i>	‘maguey’	(8)	<i>kob</i>	<i>kuhb</i>	‘tejate’
(4)	<i>-běz</i>	<i>-bez</i>	‘wait for’	(9)	<i>get</i>	<i>geht</i>	‘tortilla’

Second, glottalized (checked and rearticulated) vowels in SPGZ generally correspond to the same phonation types in SLQZ, but superficially it appears that SLQZ has merged the tonal contrast between low and rising. That is, both rising ((10) - (13)) and low tones ((14) - (17)) in SPGZ correspond to a low tone in SLQZ:

	SPGZ	SLQZ	gloss		SPGZ	SLQZ	gloss
(10)	<i>-xű'zh</i>	<i>-zhua'zh</i>	‘cut up’	(14)	<i>-ba'n</i>	<i>-ba'n</i>	‘steel’
(11)	<i>-chĩ'ch</i>	<i>-chi'ch</i>	‘make angry’	(15)	<i>-bi'ky</i>	<i>-be'ky</i>	‘put on’
(12)	<i>-chǎ'a</i>	<i>-cha'a</i>	‘warm’	(16)	<i>-do'o</i>	<i>-do'o</i>	‘get sold’
(13)	<i>-ní'zh</i>	<i>-ni'iz</i>	‘give’	(17)	<i>-gi'iny</i>	<i>-gi'iny</i>	‘borrow’

However, when the forms above are inflected we see the evidence for a covert contrast between two classes of roots phonetically realized with a low tone in SLQZ. Certain aspectual prefixes (Potential and Progressive) and a pronominal clitic (1PL) assign a high tone to the root in some cases (18) - (19), while not in others (20) - (21). We hypothesize that roots which block high tone docking are specified with the tonal feature [+L], while those which accept high tone

are underspecified for tone, thus [Ø] (underspecified tonal contrasts are also reported for other Zapotec varieties; cf. Pike 1948, Bickmore & Broadwell 1997 and Sicoli 2007). In the following examples the roots are in boldface. Morphemes after the roots are pronominal clitics.

[+L]	ROOT	PROGRESSIVE <i>ka-</i>	1PL = <i>an</i>
(18)	a. -<i>chi'ch</i> 'make angry'	b. <i>ká-chi'ch</i> = <i>ráng</i>	c. <i>r-chi'ch</i> = <i>an</i>
(19)	a. -<i>ni'zh</i> 'give'	b. <i>ká-ni'zh</i> = <i>áng</i>	c. <i>r-ni'zh</i> = <i>an</i>
[Ø]			
(20)	a. -<i>be'ky</i> 'put on'	b. <i>ka-bé'ky</i>	c. <i>r-bé'ky</i> = <i>an</i>
(21)	a. -<i>gi'iny</i> 'borrow'	b. <i>ka-gi'iny</i> = <i>ang</i>	c. <i>r-gi'iny</i> = <i>an</i>

Crucially, it turns out that [+L] in SLQZ corresponds to a rising tone in SPGZ, while [Ø] in SLQZ corresponds to a low tone in SPGZ; thus, the SLQZ roots in (10) - (13) are [+L], behaving like (18) and (19), while the SLQZ in (14) - (17) are [Ø], behaving like (20) and (21). Over 120 cognates were checked between SLQZ and SPGZ, and the patterns described above hold with only three exceptions.

We infer that SPGZ retains the original pattern from the fact that the SLQZ [+L] roots assign a floating high tone to the following morpheme (as long as this morpheme has a [Ø] tone); see the Progressive forms of (18) and (19) above. This could be accounted for if the original rising tone on the root vowel in pre-SLQZ is now split into a low tone on the root vowel and a floating high tone which docks to the following morpheme.

Our analysis of the SLQZ data suggests that an underspecified tonal contrast may come from an overt tonal contrast, supporting claims of Hyman (2009: 117). Furthermore, it appears as if SLQZ is conspiring to eliminate overt tonal contrasts, in the sense that the original overt tonal contrasts (rising vs. low) are being replaced by the phonation contrast (modal vs. breathy) and the abstract tonal feature contrast ([+L] vs. [Ø]). We will further investigate if this tendency holds across the Zapotecan varieties, based on the Zapotec and Chatino Survey data collected between 2007 and 2011.

[REFERENCES]

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