

A tonal study of an endangered language in China: The case of Du'an Zhuang

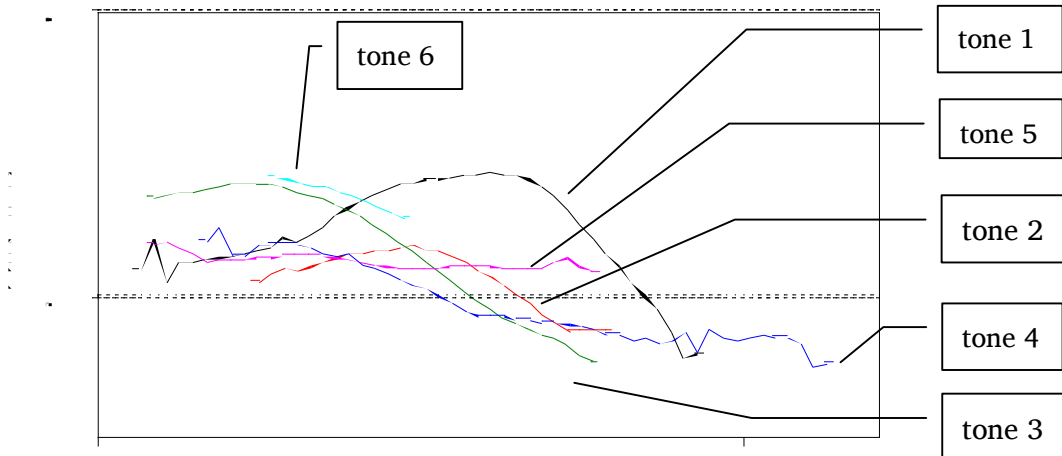
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Introduction This study presents a detailed phonetic report of tone in the endangered language, Du'an Zhuang. Du'an Zhuang is a dialect of the Zhuang language, the largest minority language spoken in Southwestern China (Wei and Qin, 1980, Wei and Tan, 2006). Younger generations of Zhuang are increasingly becoming monolingual in Mandarin Chinese (Y.-H. Wei, p.c.). Many varieties of Zhuang, such as Du'an Zhuang, are disappearing without ever being documented.

Tone in Zhuang There are ten surface tones in Standard (Wuming) Zhuang (Wei and Qin 1980), only six of which are contrastive phonologically. Four of the tones are phonetic variants that depend on whether a following coda consonant is an obstruent or a sonorant. Glottalized onset consonants in Zhuang restrict the inventory of tone that can appear on the vowel in the same syllable. While this restriction has been described based on impressionistic studies, we have undertaken the first modern phonetic analysis.

Data collection Data comes from 13 interviews conducted over one year with each interview lasting about 2 hours. The sessions were conducted in a sound-proof booth. Recordings were segmented using Praat. Pitch tracks are extracted from each file using an automated Praat script as shown below.

Comparison of pitch contours



Tone	1 (black)	2 (red)	3 (green)	4 (blue)	5 (magenta)	6 (cyan)
Du'an	[35]	[31]	[51]	[31] (creaky)	[33]	[54] (short)
Wuming	[24]	[31]	[55]	[42]	[35]	[33]

Results A comparison with Wuming Zhuang, the standard dialect, shows that the tonal system in Du'an Zhuang is different. Amongst the most notable differences are the following: Tones 2 and 4 both have [31] components; they differ in that tone 4 is creaky, and tone 2 is not; tone 5 is rising in Wuming, but it is level in Du'an. On the other hand, while tone 3 is level in Wuming, it is falling in Du'an. Finally, tone 6 appears to be a shorter version of tone 3.

References

Wei, Jingyun, and Tan, Xiaohang. 2006. *Zhuang yu tong lun*. Beijing Shi: Zhong yang min zu da xue chu ban she.
Wei, Qingwen, and Qin, Guosheng. 1980. *Zhuang yu jian zhi*: Zhongguo shao shu min zu yu yan jian zhi cong shu. Beijing: Min zu chu ban she : Xin hua shu dian fa xing.