1. Introduction

Yuebei refers to northern Guangdong, a broad region adjacent to Jiangxi Province, Hunan Province and Guangxi Province. Because of the mountainous terrain, this area had always been a significant shelter from aggressive wars and natural disasters; thus, a large number of refugees kept moving southwards to this area in search of peaceful lives. This constant immigration, no doubt, increased the linguistic complexity around this area. Now, beside the mainstream dialects, Hakka and Yue, there is still a group of less-familiar dialects in this area, usually called Yuebei Tuhua (YBTH) (Wu and Zhan 2008).

Previously named as Shaozhou Tuhua in *Language Atlas of China*, Yuebei Tuhua is a group of aboriginal dialects whose affinity is still uncertain (Lin and Zhuang 2000; Zhao 2002; Zhuang 2004). YBTH is linguistically affected by many Chinese dialects. Specifically, YBTH displays linguistic characteristics of the ambient languages, such as Hakka (Li 2000; Lin Kuang, and Zhuang. 1995; Sagart 2001), Yue (Lin et al. 1995), Gan (Zhuang 1999), Southwest Mandarin (Zhuang 2004), and Xiangnan Tuhua and Guibei Pinghua (Wang 2001; Zhan et al. 2003). Besides, YBTH shows numerous remarkable features, one of which is the formation of its diminutives.

Diminutives are extensively observed among Chinese dialects. Usually, they are generated by morphologically changing the tones and / or rimes of their corresponding bases, and originally denote something smaller or fewer. Take the Nanjing dialect for example. Along with the tonal change to [24], the retroflex suffix [ɚ˞] gets suffixed to, and slightly modifies, the rimes of the bases, and such diminutives as [tə̃^{24}] (←[tən^{44}] ‘stool’) and [tsuə̃^{24}] (←[tsuəi^{11}] ‘mouth’) are derived (Huang 2003). Similar to other Chinese dialects, YBTH shapes the diminutives by changing the tones and / or rimes of the bases. The YBTH diminutives can be sorted by two indexes, glottal stop insertion (GSI) and diminutive tones (DTs), as shown in Table 1. Some examples of each type are in listed Table 2.

Table 1 Different Types of Diminutives in YBTH

GSI	Diminutive Tones (DTs)			
	Convergence (one DT)		Splitting (two DTs)	
Middle-GSI	Shangyao	MʔH	Baisha	MʔH / LʔM
	Zhoutian	LʔM	Lishi	MʔH / LʔM
			Lashi	MʔH / LʔM

Table 1 Continued

Final-GSI	Meicun	ʔML		
	Guitou	ʔML		
	Shitang	ʔML		
	Beixiang	ʔML		
No-GSI	Changjiang	HL	Wujing	ML / HM
	Changlai	H ↗		

Table 2 Examples of Different Types of Diminutive in YBTH

Type	Dialect	Base	Diminutive	Gloss
Middle-GSI	Lishi	kwo:	$kwo^{L}ʔo^{M}$	‘cover’
		$ts^{h}ɐn$	$ts^{h}ɐ^{L}ʔn̩^{M}$	‘spring’
		gow	$go^{M}ʔw̩^{H}$	‘goose’
Final-GSI	Meicun	kwɤ	$kwɤʔ^{ML}$	‘cover’
		$ts^{h}aŋ$	$ts^{h}aŋʔ^{ML}$	‘spring’
		g w	$g\ wʔ^{ML}$	‘goose’
No-GSI	Changjiang	$t^{h}ɛw$	$t^{h}ɛw^{H}↗$	‘head’
	Wujing	kã	$kã^{ML}$	‘orange’
	Changlai	ʃi	$ʃi^{HL}$	‘filter’

As for GSI, a glottal stop is inserted in syllable-medial or syllable-final positions of the bases, and a seemingly two-syllable diminutive (middle-GSI) or a diminutive closed by a glottal stop (final-GSI) is formed. No-GSI, as its name suggests, indicates that diminutives are formed without glottal stops inserted into the bases.[1]

No matter which type of GSI is taken into consideration, the YBTH diminutives are always accompanied by one or two DTs. The DTs show several linguistic features. First, there are two types

[1] As indicated in Zhao (2002) and Zhuang (2004), a diachronic order existed among the three types of GSI (i.e. middle-GSI → final-GSI → no-GSI). Cheng (2006) and Chung and Cheng (2007) placed the positional shifts of the glottal stop in YBTH diminutives into the framework of Optimality Theory (OT), illustrating that YBTH diminutives diachronically evolved from a marked phonological structure to an unmarked one. The three types of YBTH diminutives went at a direction of structural simplification. In middle-GSI, the contiguity of the bases was broken by the inserted glottal stop. While in final-GSI, the contiguity of the bases was respected, for the glottal stop was inserted on the rightmost edge. In no-GSI, phonological identity was pursued between the bases and their morphologically related optimal outputs (i.e. the diminutives). At this time, diminutive and their base had the same segmental shape. For more details, please see Chung and Cheng (2007).