

THE COMMON ORIGIN OF DIMINUTIVES IN SOUTHERN CHINESE DIALECTS AND SOUTHEAST ASIAN LANGUAGES

ABSTRACT

In this paper I discuss the evolution of the four types of diminutives in Wu, Min, Gan and Yue dialects step by step. Type I uses the syllabic suffix *jian* 𪛗 to express the diminutive; type II appends a glottal stop ʔ as the last segment of the syllable, and adds a tonal alternation to carry a diminutive increment of meaning; type III is the diminutive where syllables have the feature of a constricted glottis, plus a tonal alternation; type IV uses only tonal alternations or changed tones to express the diminutive. As far as the relationship between suffixal -ʔ and tonal alternation is concerned, I argue that it was the disappearance of the suffixal -ʔ that caused tonal change. It is my view that these four types of diminutives can be traced back to one common source, the *jian* suffixal diminutive. Having compared the *jian* diminutive in Min dialects with the *con* diminutive in Vietnamese, I maintain that the *jian* word and the *jian* diminutive is related to the Austroasiatic etymon represented by Vietnamese *con* and the *con* diminutive. I consider the *jian* and *jian* diminutive in some southern Chinese dialects to reflect a substratum of the ancient Baiyue languages.

1.0. INTRODUCTION

Diminutives indicate small size, and sometimes the state or quality of being familiarly known, lovable, pitiable, or contemptible. From a grammatical viewpoint, a diminutive may also have the function of changing a form class, mainly shifting other parts of speech to the corresponding nouns. The use of the morphemes *zi* 子 and *er* 儿, meaning 'child, son', as markers of the diminutive is commonly found in most Chinese dialects. In some southern dialects, especially in Wu 吴, Min 闽, Gan 赣, Hui 徽 and Yue 粤 dialects, there are some other diminutives in addition to *er* and *zi*. I list some examples from Wu, Gan, Yue and Min as follows:

* I owe a great debt of gratitude to Professor James A. Matisoff for his comments on earlier drafts of this paper and to Professor Mai Yun of Zhongshan University in Guangzhou for providing some data on the Guangzhou dialect, and for helpful discussion by e-mail of the diminutive in the Guangzhou dialect.

1.1. *Wu Dialects*

In the Ningbo 宁波 dialect, the diminutive is formed by changing the tone and adding the feature of constricted glottis (Chen 1992):

		Basic Form	Diminutive
'chicken'	鸡	<i>tɕi</i> ⁵³	<i><u>tɕi</u></i> ³⁵
'pig'	猪	<i>tsɿ</i> ⁵³	<i><u>tsɿ</u></i> ³⁵
'shrimp'	虾	<i>ho</i> ⁵³	<i><u>ho</u></i> ³⁵

Here, I use underlining to represent a syllable with the feature of constricted glottis.

In the Wuyi 武义 dialect, one of the other Wu dialects in Zhejiang, the diminutive is marked by a tonal alternation plus a glottal stop at the end of a syllable (Fu 1988):

		Basic Form	Diminutive
'book'	书	<i>ɕy</i> ²⁴	<i>ɕyʔ</i> ⁵ (picture-story book)
'ox'	牛	<i>niəu</i> ²¹³	<i>niəuʔ</i> ⁵
'hole'	洞	<i>doŋ</i> ³¹	<i>doŋʔ</i> ⁵
'bowl'	碗	<i>ŋuo</i> ⁵⁵	<i>ŋuoʔ</i> ⁵

But in the Wenzhou 温州 dialect, the diminutive differs from the basic form by just a tonal alternation (Zhengzhang 1980, 1981):

		Basic Form	Diminutive
'child'	儿	<i>ŋ</i> ³¹	<i>ŋ</i> ²¹²
'fish'	鱼	<i>ŋ</i> ³¹	<i>ŋ</i> ²¹²

1.2. *Gan dialects*

In the Lichuan 黎川 dialect of Jiangxi 江西, the diminutive is marked by just a tonal alternation (Yan 1993):

		Basic Form	Diminutive
'old man'	公	<i>kuŋ</i> ²²	<i>kuŋ</i> ⁵³
'nest, den'	窝	<i>uo</i> ²²	<i>uo</i> ⁵³ (pit)
'tingle'	麻	<i>ma</i> ³⁵	<i>ma</i> ⁵³ (sesame)
'yard'	园	<i>viɛŋ</i> ³⁵	<i>viɛŋ</i> ⁵³

1.3. Yue dialects

In the Guangzhou 广州 dialect, the diminutive also shows a tonal alternation (Mai 1995):

		Basic Form	Diminutive
'head'	头	<i>t^heu</i> ¹¹	<i>t^heu</i> ³⁵ (leader)
'bag'	袋	<i>tɔi</i> ²²	<i>tɔi</i> ³⁵ (pocket)
'to cut'	凿	<i>tʃɔk</i> ²²	<i>tʃɔk</i> ³⁵ (chisel)
'to sweep'	扫	<i>sou</i> ³³	<i>sou</i> ³⁵ (broom)
'to grip'	夹	<i>kap</i> ³³	<i>kap</i> ³⁵ (clip)

In the Nanxiong 南雄 dialect, a glottal stop and a tonal alternation are attached to words, in order to carry a diminutive or affective increment of meaning (Egerod 1983):

		Basic Form	Diminutive
'monkey'	猴	<i>hei</i> ²¹	<i>hei</i> ? ²
'mosquito'	蚊	<i>mum</i> ²¹	<i>mum</i> ? ²
'people'	人	<i>niŋ</i> ²¹	<i>niŋ</i> ? ² (child)

The Nanxiong dialect, commonly called Nanxiong local dialect 南雄土语, is spoken at the extreme northern corner of Guangdong province. Although the classification of the dialect is unclear, there is undoubtedly a very close relationship between the Nanxiong and Yue dialects. Therefore, for convenience sake I subsume the Nanxiong dialect under the Yue group.

1.4. Min dialects

In Min dialects, the *jian* 囡 suffix is used to express a diminutive meaning. Following are some examples from the Fuzhou 福州 dialect of Northern Min (Liang 1989):

		Basic Form	Diminutive
'chicken'	鸡	<i>kie</i> ⁵³	鸡囡 <i>kie</i> ⁵³ <i>kian</i> ³¹
'sheep'	羊	<i>yɔŋ</i> ³¹	羊囡 <i>yɔŋ</i> ³¹ <i>kian</i> ³¹
'peach'	桃	<i>t^ho</i> ³¹	桃囡 <i>t^ho</i> ³¹ <i>kian</i> ³¹

In the Datian 大田 dialect of Southern Min, the same diminutive suffix *jian* (with a different pronunciation) is used to represent the diminutive meaning (Huang 1983):

		Basic Form	Diminutive
'carp'	鲤	<i>te</i> ⁵⁵	鲤 团 <i>te</i> ⁵⁵⁻³¹ <i>kĩ</i> ⁴²
'pot'	壶	<i>xu</i> ⁴²	壶 团 <i>xu</i> ⁴²⁻³³ <i>kĩ</i> ⁴²
'pig'	希	<i>xua</i> ⁴²	希 团 <i>xua</i> ⁴² <i>kĩ</i> ⁴²

The diminutives listed above can be classified into four types. Type I uses the syllabic suffix *jian* to express the diminutive, as in the Fuzhou and Datian dialects of Min; Type II appends a glottal stop ʔ as the last segment of the syllable, and adds a tonal alternation to carry a diminutive increment of meaning. The diminutive of the Wuyi dialect of Wu and the Nanxiong dialect of Yue belongs to this type; Type III is the diminutive where syllables have the feature of a constricted glottis, plus a tonal alternation, such as in the Ningbo dialect of Wu; Type IV uses only tonal alternations to express the diminutive. The Guangzhou dialect of Yue, the Lichuan dialect of Gan and the Wenzhou dialect of Wu belong to this type of diminutive. Traditionally, these types of tonal alternation are called *biànyīn* 变音 "changed sound, or changed tone" by most Chinese scholars, which mean the tones of certain diminutive words, chiefly nouns, have a tonal contour different from that of their etymological category when used in everyday familiar speech. I will use the traditional terminology and call them changed tones below. In this paper, I would like to explore the relationship among these four types of diminutives. It turns out, I believe, that these four seemingly disparate types all derive from a common diminutive morpheme.

2.0. DIMINUTIVES IN WU DIALECTS

Among the four types of diminutives, type I, the fully syllabic diminutive morpheme, occurs only in Min dialects and not elsewhere. It seems clear that this one is quite distinct from the other three, and the relationship among types II, III, and IV is closer than the one between type I and these three others, if we assume they have some relationship. So, first, I would like to deal with the relationship among types II, III, and IV.

Since all three types (II, III, and IV) exist in Wu dialects, the following discussion will be focused on diminutive forms in Wu; however, I also will compare the diminutive of Wu dialects with the corresponding forms in Gan and Yue dialects.

2.1. Diminutives in the Ningbo dialect

Let us take the diminutive in the Ningbo dialect of Wu first. In this dialect, diminutives of type III actually are no longer formed productively, but I have found a few noun-pairs that are obviously fossilized remnants of such a process (Chen 1992). Compared with the basic form, the diminutive shows the feature of constricted glottis and a changed tone. The upper rising tone (*yīnshǎng* 阴上) shares the same phonetic features as those of the changed tone. Following (Table 1) are the tonal system of the Ningbo dialect and some examples of basic forms, diminutive forms and rising tone words:

	Level	Rising	Departing	Entering
Upper	53	<u>35</u>	44	5
Lower	24	213	213	2

‘chicken’ 鸡			‘a few’ 几	
Basic Form	Diminutive	=	Upper Rising Tone Word	
<i>tɕi</i> ⁵³	<i>tɕi</i> ³⁵		<i>tɕi</i> ³⁵	

‘pig’ 猪			‘mainly’ 主	
Basic Form	Diminutive	=	Upper Rising Tone Word	
<i>tsɿ</i> ⁵³	<i>tsɿ</i> ³⁵		<i>tsɿ</i> ³⁵	

‘shrimp’ 虾			‘fire’ 火	
Basic Form	Diminutive		Upper Rising Tone Word	
<i>ho</i> ⁵³	<i>ho</i> ³⁵		<i>hu</i> ³⁵	

Table 1. The tonal system of the Ningbo dialect and some examples of basic forms, diminutive forms and rising tone words

This raises the question: Where did the feature of constricted glottis come from? Observing the dialects of the neighboring counties, such as Tiantai 天台, Huangyan 黄岩 and Leqing 乐清, we can see that all upper rising tone words in these dialects have a glottal stop -ʔ as a final ending. Taking some upper rising tone words of the Tiantai dialect as examples:

‘to cook’ 煮 *tsɿʔ*³²⁵; ‘plank’ 板 *pɛʔ*³²⁵; ‘to understand’ 懂 *toŋʔ*³²⁵

It is clear that the feature of constricted glottis in the upper rising tone of the Ningbo dialect derived from the final glottal stop. From the phonetic viewpoint, a

constricted glottis is one of the most important features of the glottal stop. When a glottal stop is pronounced, the vocal folds need to close and then release. The movement of closure and release constricts the vocal cords. Chomsky and Halle described the articulation of the glottal stop as marked by the feature of glottal constriction in their universal set of phonetic features (Chomsky and Halle 1968). We can now reconstruct type III of the diminutive in the Ningbo dialect roughly as in Table 2:

	Basic Form	Diminutive
'chicken' 鸡	tɕi ⁵³	tɕi ³⁵ < *tɕiʔ ⁵³
'pig' 猪	tsɿ ⁵³	tsɿ ³⁵ < *tsɿʔ ⁵³
'shrimp' 虾	ho ⁵³	ho ³⁵ < *hoʔ ⁵³

Table 2. *The reconstruction of the diminutive in the Ningbo dialect.*

The diminutive suffix reconstructed above is exactly the same as that of type II, which is found in the Wuyi and Nanxiong dialects. Therefore, we can say that the diminutive of type III is an advanced stage of type II:

Type II		Type III
glottal stop with tonal alternation	----- >	constricted glottis with tonal alternation

2.2. Diminutives in the Wenzhou dialect

We turn next to diminutives in the Wenzhou dialect. The diminutive in the Wenzhou dialect belongs to type IV. In this type words carry a diminutive or other increment of meaning just by changing tone:

		Basic Form	Diminutive
'child'	儿	η^{31}	η^{212}
'fish'	鱼	η^{31}	η^{212}

A glance at the tonal system of Wenzhou in Table 3 will show that the tonal value of the changed tone is the same as the lower entering tone.

	Level	Rising	Departing	Entering
Upper	44	45	42	323
Lower	31	34	22	212

Table 3. *the tonal system of the Wenzhou dialect*

In most Wu dialects, entering tone words, both the upper and the lower, have glottal stop ʔ as a coda; but a few dialects, such as Wenzhou, do not, which represents an advanced stage of coda loss. Therefore, there should be no objection to assuming that in some early period of the Wenzhou dialect the diminutive form (the changed tone), as well as the entering tone words, did have a glottal stop as a coda. This assumption can also be supported by evidence from the Qingtian 青田 dialect, one of the neighboring dialects of Wenzhou. In Qingtian, a word with the feature of constricted glottis and a tonal alternation (type III of the diminutive) carries a diminutive meaning (Pan 1988):

	Basic Form	Diminutive
'fish' 鱼	<i>ŋe</i> ³³	<i>ŋe</i> ³⁵
'sheep' 羊	<i>ji</i> ³³	<i>ji</i> ³⁵

As mentioned above, type III of the diminutive represents an advanced stage of type II. So it is reasonable to assume that these three types of the diminutive actually show us three different, but sequentially related, steps in the developmental process of the same diminutive morpheme. Type II represents the first step; type III is a transitional step, and type IV is the last step in the evolution.

I hypothesize a process for the developments in Wu dialects as in Table 4:

Step 1 (Type II) ----->	Step 2 (Type III) ----->	Step 3 (Type IV)
glottal stop and tonal alternation	constricted glottis and tonal alternation	tonal alternation
Wuyi dialect	Ningbo and Qingtian dialects	Wenzhou dialect

Table 4. *Evolution of the diminutive in Wu dialects.*

3.0. DIMINUTIVES IN YUE DIALECTS

The developmental process of the diminutive in Wu dialects can be taken as a model according to which we can examine some related diminutive forms in other dialects.

3.1. *Diminutives in the Guangzhou dialect*

Let us now consider the related diminutive formation in the Guangzhou dialect of Yue. The tonal system of the Guangzhou dialect is shown in Table 5:

	Level	Rising	Departing	Entering
Upper	53	35	33	55(a), 33(b)
Lower	21	13	22	22

Table 5. The tonal system of the Guangzhou dialect.

The entering tone, realized as 55a, 33b or 22, is completely predictable from its syllable shape, since it is a concomitant of syllables ending in a stop. Two of the pitch levels one finds in the entering tone (33 and 22) also occur in other tones (upper, departing and lower departing respectively). However, most Chinese linguists treat the entering tone as an independent tonal category, since this approach facilitates the tracing of tonal developments from Middle Chinese to modern dialects, as well as cross-dialectal comparison.

Additionally there are two different changed tones carrying diminutive meaning: 55 and 35. Their tonal values are the same as the upper rising and the upper entering(a), respectively. These two changed tones almost always occur in complementary distribution. The basic forms and their corresponding changed tones are listed in Table 6:

	Basic Tone	Changed Tone
Upper Level	53	55
Lower Level	21	35
Upper Rising	35	/
Lower Rising	13	35
Upper Departing	33	35
Lower Departing	22	35
Upper Entering(a)	55	/
Upper Entering(b)	33	35
Low Entering	22	35

Table 6. The relationship between basic forms and changed tones.

Following are some examples:

		Basic Form	Diminutive (Changed Tone)
'car, bike'	车	tʃ ^h e ⁵³	tʃ ^h e ⁵⁵
'meal'	餐	tʃ ^h an ⁵³	tʃ ^h an ⁵⁵
'fly'	蝇	jeŋ ²¹	jeŋ ³⁵

'fish'	鱼	jy ²¹	jy ³⁵
'girl'	女	nøy ¹³	nøy ³⁵
'eye'	眼	ŋan ¹³	ŋan ³⁵
'shelf'	架	ka ³³	ka ³⁵
'a flat, piece'	片	p ^h in ³³	p ^h in ³⁵
'egg'	蛋	tan ²²	tan ³⁵
'picture'	画	wa ²²	wa ³⁵
'tower'	塔	t ^h ap ³³	t ^h ap ³⁵
'duck'	鸭	ap ³³	ap ³⁵
'crane'	鹤	hək ²²	hək ³⁵
'butterfly'	蝶	tip ²²	tip ³⁵

It seems strange that we cannot find any diminutives in the upper rising and upper entering(a) tone. For this reason, most people believe that there is no diminutive in these two tones. In my opinion, however, the basic and the diminutive forms are actually overlapping. There are two reasons for this hypothesis. First, the tonal values of upper high rising 35, and upper entering (a) high level 55, are the same as those of the two changed tones (high rising and high level). In other words, the tone value of the changed tone of upper rising words is high rising 35. This is the same as the tone value of ordinary upper rising tone words. The tone value of the changed tone of upper entering tone is high level 55, the same as that of upper entering tone words. This is the reason why one cannot distinguish the basic forms from their diminutives under these two tones. Second, in the Guangzhou dialect, a construction of reduplicated adjectives plus the particle 地 [teɪ³⁵] expresses the meaning of diminishing the adjectival degree. Within this structure, the tone of the second syllable must be under a changed tone, either the high rising (35) or the high level (55), based on their citation tone categories. For instance:

"sharp"	尖 tʃim ⁵³	尖尖地 tʃim ⁵³⁻⁵⁵ tʃim ⁵³⁻⁵⁵ teɪ ³⁵ (a little bit sharp)
"yellow"	黄 wɔŋ ²¹	黄黄地 wɔŋ ²¹ wɔŋ ²¹⁻³⁵ teɪ ³⁵ (a little bit yellow)
"old"	老 lou ¹³	老老地 lou ¹³ lou ¹³⁻³⁵ teɪ ³⁵ (a little bit old)
"strange"	怪 kwai ³³	怪怪地 kwai ³³ kwai ³³⁻³⁵ teɪ ³⁵ (a little bit strange)
"big"	大 tai ²²	大大地 tai ²² tai ²²⁻³⁵ teɪ ³⁵ (a little bit big)
"pained"	劫 kip ³³	劫劫地 kip ³³ kip ³³⁻³⁵ teɪ ³⁵ (a little bit pained)
"protruding"	凸 tət ²²	凸凸地 tət ²² tət ²²⁻³⁵ teɪ ³⁵ (a little bit protruding)

However, in the upper rising and upper entering(a) tone categories, they retain their citation tone value:

"short"	短 tyn ³⁵	短短地 tyn ³⁵ tyn ³⁵ tei ³⁵ (a little bit short)
"low"	矮 ei ³⁵	矮矮地 ei ³⁵ ei ³⁵ tei ³⁵ (a little bit low)
"wet"	湿 səp ⁵⁵	湿湿地 səp ⁵⁵ səp ⁵⁵ tei ³⁵ (a little bit wet)
"squeeze"	逼 pek ⁵⁵	逼逼地 pek ⁵⁵ pek ⁵⁵ tei ³⁵ (a little bit squeezed)

The reason why the second syllables keep their citation tone values is that their citation tones and the changed tones overlap. That makes the two forms indistinguishable.

Based on the above analysis, I rearrange the changed tones of the upper rising and upper entering tone(a) words in the following way:

	Basic Form	Diminutive
"short"	短 tyn ³⁵	tyn ³⁵ (a little bit short)
"low"	矮 ei ³⁵	ei ³⁵ (a little bit low)
"wet"	湿 səp ⁵⁵	səp ⁵⁵ (a little bit wet)
"squeeze"	逼 pek ⁵⁵	pek ⁵⁵ (a little bit squeezed)

Let us now return to the relationship between the nine citation tones and their corresponding changed tones. See Table 7.

	Citation Tone	Changed Tone
Upper Level	53	55
Lower Level	21	35
Upper Rising	35	35
Lower Rising	13	35
Upper Departing	33	35
Lower Departing	22	35
Upper Entering(a)	55	55
Upper Entering(b)	33	35
Lower Entering	22	35

Table 7. The relationship between citation tones and changed tones.

Comparing the tone contours of the nine citation tones with those of their corresponding changed tones, it is obvious that the [+ high] and [+ rising] features are most noticeable among these two changed tones. In other words, it seems that

the changed tones have the effect of raising the tone values of their corresponding citation tones. The tone value of the upper entering(a) is high level 55. Since it is impossible to raise the tone value to a higher level, the corresponding changed tone still remains at the same high level. The tone value of upper rising is high rising 35, so that the ending of the tonal contour is at the highest point of one's normal speaking range and it is not possible to raise the tone value to a higher level. As a result, the high rising contour is retained. The tone value of upper level is high falling 53. In the diminutive of this category, the end of the high falling contour is raised to the highest point of a person's normal speaking range, turning into a high level 55. If the endings of tonal values are at the middle point of a person's speaking range, as in the lower rising, upper departing and upper entering(b) tones, or if the tone values are lower than the middle point, as in the lower level, lower departing and lower entering tones, the diminutive raises the endpoints of the citation tones to the upper limit of one's normal range, so that the tonal contour of their corresponding changed tone is high rising.

3.2. *Diminutives in the Taishan dialect*

Based on the complementary distribution of these two changed tones and their characteristics described above, I believe that these two changed tones can be traced back to a single diminutive morpheme with the [+ high] and [+ rising] tonal features. This view can be supported by much evidence from certain Yue dialects. Let's take the Taishan 台山 dialect of Yue as an example. Table 8 displays the tonal system and changed tones in Taishan:

Tonal Category	Citation Tonal Value	Changed Tone
Upper Level, Upper Entering(b)	33	335
Lower Level	22	225
Lower Rising	21	215
Lower Departing, Lower Entering(a)	32	225
Lower Entering(b)	31	315
Upper Rising, Upper Entering(a)	55	55

Table 8. *The tonal system and changed tones in the Taishan dialect*

Comparing the citation tones with their corresponding changed tones, it is quite clear that the changed tones have a strong effect in raising their corresponding citation tones to the highest point of one's pitch range. The tonal values of upper rising and upper entering(a) are the same high level 55, similar to the situation of

the upper entering tone(a) in the Guangzhou dialect. It is impossible to raise the pitch to a higher level, so their changed tones retain the same high level 55.

3.3. *Diminutives in the Xinyi dialect*

We may cite another example from the Xinyi 信宜 dialect of Yue. In Xinyi, the diminutive (changed tone) differs from the basic form just by using a super-high rising tone. The mark “↗” is used to represent this special super-high rising tone. For example (Luo 1986):

		Basic Form	Diminutive
‘duck’	鴨	ap ³³	am ↗
‘head’	頭	t ^h eu ¹¹	t ^h eu ↗
‘pot’	鑊	wək ²²	wəŋ ↗

However, it can be further classified into three variants based on the different tonal registers of the nine citation tones. I list the three variants of the changed tone and their corresponding citation tones in Table 9:

	Citation Tone	Changed Tone
Tonal Category and Tonal Value		
High Register	Upper Level 53, Upper Entering(a) 55	5X
Middle Register	Lower Rising 35, Upper Departing 33, Upper Entering(b) 33	3X
Low Register	Lower Level 23/11, Lower Rising 23, Lower Departing 11, Lower Entering 22	2X

Table 9 The three variants of the changed tones and their corresponding citation tones in the Xinyi dialect.

“X” represents a super-high point in one’s pitch range. From this table, we can see that the characteristic of the changed tone is a super-high rising contour. This diminutive form differs from the high register of the citation tone by raising the pitch from the normal high of the speaker’s range to the super-high point. It also differs from the middle register of the citation tone by raising the pitch from the mid to the super-high point of the speaker’s pitch range; and it differs from the low register of the citation tone by raising the pitch from the very bottom or lower limit of the voice to the super-high end of the speaker’s pitch range.

Clearly, the diminutives or changed tones in these three related Yue dialects have a common source, and all forms can be traced back to one diminutive morpheme with the tonal features of [+ high] and [+ rising].

Comparing the above three diminutives in Yue dialects with the Nanxiong dialect, where a glottal stop is used to carry the diminutive meaning, and the evolution of the diminutive in Wu dialects described earlier, it is reasonable to assume that the disappearance of the final -ʔ led to the appearance of the high rising tone in the Guangzhou, Taishan and Xinyi dialects. In some Gan dialects the diminutive tone sandhi can also be traced back to a final glottal stop (Chen 1993).

3.4. Two different diminutives in Southern Chinese

Some people believe that the changed tone used to express the diminutive in Yue dialects can be further traced back to the *er* suffix (Zhang and Zhou 1993, Mai 1995). In my opinion, this is impossible if we carefully compare related diminutives in certain southern Chinese dialects. For example, in some Wu dialects, such as Ningbo, there are two different diminutives. Diminutive II is from the *er* suffix and Diminutive I is derived from a final glottal stop:

Diminutive I

		Basic Form	Diminutive
'chicken'	鸡	<i>tɕi</i> ⁵³	<i>tɕi</i> ³⁵ < * <i>tɕiʔ</i> ⁵³
'pig'	猪	<i>tsɿ</i> ⁵³	<i>tsɿ</i> ³⁵ < * <i>tsɿʔ</i> ⁵³
'shrimp'	虾	<i>ho</i> ⁵³	<i>ho</i> ³⁵ < * <i>hoʔ</i> ⁵³

Diminutive II

		Basic Form	Diminutive
'duck'	鸭	<i>aʔ</i> ⁵⁵	<i>ɛ</i> ³⁵ (< <i>ẽ</i> < <i>an</i> < <i>aʔ</i> + <i>ŋ</i>)
'uncle'	叔	<i>soʔ</i> ⁵⁵	<i>soŋ</i> ⁴⁴ (< <i>soʔ</i> + <i>ŋ</i>)
'cat'	猫	<i>mɔ</i> ²¹³	<i>mɛ</i> ²¹³ (< <i>mẽ</i> < <i>man</i> < <i>mau</i> + <i>ŋ</i>)

In the Wuyi dialect of Wu, there are also two diminutives coexisting. Diminutive II is from the *er* suffix and Diminutive I is derived from a final glottal stop (Fu 1988):

Diminutive I

		Basic Form	Diminutive
'book'	书	<i>ɕy</i> ²⁴	<i>ɕyʔ</i> ⁵ (picture-story book)
'ox'	牛	<i>niəu</i> ²¹³	<i>niəuʔ</i> ⁵
'hole'	洞	<i>doŋ</i> ³¹	<i>doŋʔ</i> ⁵

Diminutive II

		Basic Form	Diminutive
'dog'	狗	<i>kau</i> ⁵⁵	<i>kaŋ</i> ⁵³
'plum'	李	<i>li</i> ¹³	<i>liŋ</i> ¹³
'rabbit'	兔	<i>tʰu</i> ⁵³	<i>tʰuəŋ</i> ⁵³

In the Wenzhou dialect, there are also two different diminutives, but unlike those of Ningbo and Wuyi, which are derived from a final glottal stop, they are mostly fused together with the diminutive coming from the *er* suffix. In the following examples, Diminutive I reflects the *er* suffix and Diminutive II is the fusional form:

		Basic Form	Diminutive I	Diminutive II
'cat'	猫	<i>ʔmuo</i> ³³	猫儿 <i>ʔmuo</i> ³³ <i>ŋ</i> ³¹	<i>ʔmuo</i> ³³ <i>ŋ</i> ²¹²
'sheep'	羊	<i>ji</i> ³¹	羊儿 <i>ji</i> ³¹ <i>ŋ</i> ³¹	<i>ji</i> ³¹ <i>ŋ</i> ²¹²
'knife'	刀	<i>tə</i> ³³	刀儿 <i>tə</i> ³³ <i>ŋ</i> ³¹	<i>tə</i> ³³ <i>ŋ</i> ²¹²
'bottle'	瓶	<i>beŋ</i> ³¹	瓶儿 <i>beŋ</i> ³¹ <i>ŋ</i> ³¹	<i>beŋ</i> ³¹ <i>ŋ</i> ²¹²

The minor difference between Diminutives I and II will be discussed later.

In some Gan dialects, we find the same two diminutives coexisting in one dialect. Following are some examples from the Lichuan and the Shaowu 邵武 dialects of Gan:

I. Shaowu dialect (Chen 1993):

		Basic Form	Diminutive
			<i>Changed Tone</i> <i>er Suffix</i>
'silkworm'	蚕	* <i>tʰon</i> ²²	<i>tʰon</i> ²²⁻⁵³ <i>tʰon</i> ²²⁻⁵³ <i>nə</i> ²²
'round flat cake'	饼	* <i>piaŋ</i> ⁵⁵	<i>piaŋ</i> ⁵⁵⁻⁵³ <i>piaŋ</i> ⁵⁵⁻⁵³ <i>ŋə</i> ²²

II. Lichuan Dialect (Yan 1993):

'old man'	公	<i>kuŋ</i> ²²	<i>kuŋ</i> ²²⁻⁵³	<i>kuŋ</i> ²² <i>ŋi</i> ⁰
'pincers'	钳	<i>kʰiam</i> ³⁵	<i>kʰiam</i> ³⁵⁻⁵³	<i>kʰiam</i> ³⁵⁻⁵³ <i>mi</i> ⁰

Obviously, the *er* suffix diminutive and the one deriving from a final glottal stop can be traced back to different sources in Wu and Gan dialects. However, we cannot find these two diminutives coexisting overtly in any one Yue dialect; however, in the Xinyi dialect of Yue, I treat the forms *wək*²² > *wəŋ* / (pot) and

hɔ¹¹ > hɔŋ ʔ (river) as a single fused diminutive, with the nasal coda [ŋ] coming from the *er* suffix and the super-high rising pitch ‘ ʔ ’ deriving from - ʔ.

3.5. *Final ʔ and tonal alternation*

The relationship between final -ʔ and tonal alternation, especially involving high rising pitch, has been mentioned by many scholars. The French botanist and Orientalist André-Georges Haudricourt wrote a classic article which addressed itself to the problem of how standard Hanoi Vietnamese acquired its six tones. He claimed that by the sixth century, final -ʔ had disappeared from Vietnamese, leaving in its wake a compensatory high rising effect on the pitch of the preceding vowel (Haudricourt 1954). Inspired by Haudricourt’s analysis, Pulleyblank (1962) and Tsu-lin Mei (1970) claimed that the rising tone of Middle Chinese derived from the disappearance of a previous final -ʔ. Matisoff proposed that the high rising tone arose in Lahu through dissimilation in pre-Lahu syllables which both began and ended with a glottal stop, such that the final -ʔ disappeared, leaving in its stead the compensatory development of the high rising tone (Matisoff 1970). It seems that the relationship between a final glottal stop and tonogenesis, particularly involving a tone with features [+ high] and [+ rising], is strongly supported by evidence from some Southeast Asian languages. Higher pitch/rising contour association with a glottal stop has been mentioned by many linguists (Matisoff 1973, Lea 1973, Weidert 1987). From the viewpoint of articulatory phonetics, in the majority of languages laryngeal adjustments are primarily responsible for pitch control. In particular, the cricothyroid muscle is always active during pitch raising by its direct tensing of the vocal folds (Ohala 1978). It is my opinion, supported by the evidence mentioned above, that a pitch effect may be a minor secondary feature of a final glottal stop in some languages, and it may coexist with the glottal stop for some period of time. Only when the final glottal stop disappears will this secondary feature be reanalyzed as a contrastive tone.

Let me now briefly summarize the various forms and the evolution of the diminutive in the Wu, Yue and Gan dialects.

In these dialects the earliest form of the diminutive was the suffixal glottal stop -ʔ, fusing into a word. The pitch perturbation caused by the glottal stop was just a secondary or minor feature of the glottal stop during that period. As a result, diminutive forms and rising, departing or entering tone words shared a common phonetic identity in the same dialect, and therefore underwent a common evolution. With the gradual disappearance of the final -ʔ or the feature of constricted glottis, the suprasegmental tone becomes more and more important.

Finally, tonal alternation becomes the only phonetic difference between the basic form and its corresponding diminutive.

4.0. SUFFIXAL GLOTTAL STOP AND THE *JIAN* DIMINUTIVE

As described above, diminutives, of types II, III, and IV can all be traced back to the suffixal glottal stop. Several questions remain to be addressed: Is there any relationship between the syllabic suffixal diminutive *jian* in Min dialects and the suffixal glottal stop elsewhere? If there is, what kind of relationship do they have? To deal with these problems, I would like to take the diminutives in the Wenzhou dialect of Southern Wu, and the Datian dialect of Min as examples for a comparative study, since the close historical relationship between Wu (especially Southern Wu), and Min has been fully proved (see Ting 1988, Pan 1995, and Chen 1999).

4.1. Three degrees of diminutives in Wu and Min

There are three degrees of the diminutive in both the Wenzhou and the Datian dialects: positive (small); comparative (smaller) and superlative (smallest). These terms are chosen for convenience only, and should not be confused with the three degrees of the comparative in English. I list some examples of the three degrees in both dialects in Table 10:

I. In the Wenzhou Dialect				
Basic Form			Diminutive	
			Comparative	Superlative
'cat'	猫	<i>ʔmuɔ</i> ³³	猫儿 <i>ʔmuɔ</i> ³³ <i>ŋ</i> ³¹	<i>ʔmuɔ</i> ³³ <i>ŋ</i> ²¹²
'sheep'	羊	<i>ji</i> ³¹	羊儿 <i>ji</i> ³¹ <i>ŋ</i> ³¹	<i>ji</i> ³¹ <i>ŋ</i> ²¹²
'knife'	刀	<i>tə</i> ³³	刀儿 <i>tə</i> ³³ <i>ŋ</i> ³¹	<i>tə</i> ³³ <i>ŋ</i> ²¹²
'bottle'	瓶	<i>bɛŋ</i> ³¹	瓶儿 <i>bɛŋ</i> ³¹ <i>ŋ</i> ³¹	<i>bɛŋ</i> ³¹ <i>ŋ</i> ²¹²
II. In the Datian Dialect				
Basic form			Diminutive	
			Comparative	Superlative
'pot'	壶	<i>xu</i> ⁴²	壶儿 <i>xũ</i> ¹⁵³	壶团 <i>xu</i> ⁴²⁻³³ <i>kĩ</i> ⁴²
'pig'	希	<i>xua</i> ⁴²	希儿 <i>xuẽ</i> ¹⁵³	希团 <i>xua</i> ⁴² <i>kĩ</i> ⁴²
'hillock'	丘	<i>kʰu</i> ³³	丘儿 <i>kʰũ</i> ¹⁵³	丘团 <i>kʰu</i> ³³⁻²² <i>kĩ</i> ⁴²
'carp'	鲤	<i>te</i> ⁵⁵	鲤儿 <i>te</i> ^{~153}	鲤团 <i>te</i> ⁵⁵⁻³¹ <i>kĩ</i> ⁴²

Table 10. Three degrees of the diminutive in Wenzhou and Datian Dialects.

4.1.1. "Er" suffix

Before going on to consider the relationship between final $-ʔ$ and the *jian* suffixal diminutive, let us briefly discuss the evolutionary process of the *er* 儿 suffixal diminutive. (See Chen 1995 for a more detailed discussion.) It is obvious that the morpheme *er* is the marker of the comparative diminutive in the Wenzhou dialect. The *er* diminutive form is vigorous and productive in most Wu dialects, especially in Southern Wu (Zhengzhang 1980, 1981). However, the phonetic shape varies from county to county, representing different steps of evolution. I classify the evolutionary course into four steps (Chen 1995). At the first stage, the marker of the diminutive maintains a syllabic suffix: η , η , or ni (Middle Chinese $*\eta e$). Wenzhou is a good example of this stage. At the second stage, however, the syllabic nasal η or η has attached itself to the preceding syllable and become a coda of that syllable, as in the Yiwu 义乌 dialect of Zhejiang 浙江:

'crow' 老鸦儿	$lɔ^{31}$	$\alpha:n^{33}$	($< * \alpha + \eta$)
'sparrow' 麻雀儿	mua^{33}	$tse:n^{55}$	($* < tseʔ + \eta$)
'knife' 刀儿	$to:n^{33}$		($* < to + \eta$)

Having become a nasal coda of the preceding syllable, the diminutive morpheme shares the same phonetic evolution as a rhyme like $-VN$ (V represents any vowel and N represents a nasal η or n), since the phonological conditioning is the same. The next step in the evolution is dropping the nasal coda and making the preceding vowel nasalised:

$$vN > \tilde{v}$$

Following are some examples from the Ningbo dialect:

'old man' 阿伯儿	$aʔ^5$	$p\tilde{a}^{53}$	($< * pa\eta < * paʔ + \eta$)
'cripple' 拐脚儿	$k u a^{35}$	$t\tilde{c}i\tilde{a}^{53}$	($< * t\tilde{c}i\tilde{a}\eta < * t\tilde{c}i\tilde{a}ʔ + \eta$)
'sparrow' 麻雀儿	mo^{24}	$t\tilde{c}i\tilde{a}^{53}$	($< * t\tilde{c}i\tilde{a}\eta < * t\tilde{c}i\tilde{a}ʔ + \eta$)

In the last stage of the evolution, the nasalised feature is dropped and the final becomes an oral vowel:

$$\tilde{v} > v$$

For example in the Shanghai dialect:

‘daughter’ 女儿 $n\emptyset^{13}$ ($< *n\tilde{\theta} < *non < *no + \eta$)

These four developmental stages can be summarized as follows:

<i>First Stage</i>	<i>Second Stage</i>	<i>Third Stage</i>	<i>Fourth Stage</i>
$s + \eta(\eta)$	$c v \eta(\eta)$	$c\tilde{v}$	cv

s = syllable; c = consonant.

Returning to the comparative forms in Table 10, there should be no objection to assuming that the comparative forms in both Datian and Wenzhou derived from the *er* suffix, since the degree of the diminutive is the same and the shape of the pronunciation in Datian corresponds to the third stage of the *er* suffix in Wu (see Table 11). More detailed evidence on this point was presented in Chen 1995.

4.1.2. “Jian” suffix

Let us proceed to the next column of Table 10, the superlative (the smallest form) of the diminutive. The diminutive in Datian is expressed by a word plus the *jian* 囡 suffix. *Jian* by itself means ‘son, child’ in modern Min dialects. This word is attested textually quite early. The Tang poet Gu Kuang 顾况, (?725-?816) composed a poem when he was serving in Fujian 福建 in which he used the word in question. In the poet’s own preface to the poem he explains the word *jian*: “it is pronounced like the word *jian* 蹇; in Fujian ‘son, child’ is called *jian* in the popular language”. This dialectal word can also be found in “*Jiyun*” 《集韵》, a rhyme dictionary compiled during the Song Dynasty, where it says:

囡，闽人呼儿曰囡，九件切。

“*Jian*, the Min people call son ‘*jian*’. *Jian* is read with the initial of *jiu* 九 and the final of *jian* 件.” Based on the *fǎnqiè* 反切 in “*Jiyun*” and what Gu Kuang said in his preface, I suggest the *jian* 囡 can be reconstructed as **kian* with upper-rising tone in the Tang-Song period. This reconstruction is very similar to *kian*⁵³ in modern Fuzhou dialect (there is no contrast now between *kian* and *kian* in Fuzhou) and the *kĩ*⁴² of modern Datian is obviously a weakened form of **kian*. I assume that the more advanced development is: *kĩ* > *k*, after which the suffix *k*

fused with the preceding syllable and became its coda. In the next stage of weakening, the -*k* became a glottal stop:

$$-k > -ʔ$$

At that stage, the structure of the syllable was *cvʔ*, which is the same as the early diminutive in Wu, Gan and Yue, as discussed above. This means that the early form of the diminutive in Wu, Gan, and Yue dialects was derived from the *jian* suffixal diminutive, while the form in Min dialects preserves the early syllabic stage. This hypothesis is confirmed by two parallel evolution of the diminutives, comparative and superlative, in both Wenzhou and Datian dialects. Table 11 shows the parallel evolution of the two diminutives:

The Comparative (Smaller)				
First Step	Second Step	Third Step	Fourth Step	Fifth Step
$s + ni(ɲ)$	$s + ɲ(ɲ)$	$cv_1ɲ(ɲ)$	cv_1	cv_2
Longquan	Wenzhou	Yiwu	Ningbo, Datian	Shanghai

The Superlative (Smallest)				
First Step	Second Step	Third Step	Fourth Step	Fifth Step
$s + kian(ɲ)(\text{𪛗})$	$s + kɿ$	$*cvk$	$cvʔ$	$c\check{v}$
Fuzhou	Datian		Wuyi, Nanxiong	Wenzhou, Guangzhou

\check{v} = tonal alternation

Table 11. Parallel evolution of the two diminutives

Table 11 schematically represents the various steps in the historical development from the syllabic suffixes to the open syllables of the fusional word. A brief inspection of Table 11 reveals a step-by-step parallel evolution of the two sets of diminutives. These two diminutives both derived from syllabic suffixes *er* (comparative) or *jian* (superlative) by step 1, and share a parallel weakening though time. The finals of the suffixes are first reduced to a syllabic nasal *ɲ* (*ɲ*) or *kɿ* at step 2, then the initials of the suffixes fuse to the preceding syllables (step 3). Although the form **cvk* does not occur in either the Wu or Min dialects, it is not hard to imagine that this transitional form existed between step 2 and step 4 at some early time. By step four, the consonantal ending -*k* has weakened to a glottal stop and the vowel becomes contrastively nasal after the weakened nasal coda drops away. Finally at step 5 even the last trace of nasality becomes neutralized,

but with a compensatory difference in vowel quality ($v_1 \neq v_2$). Along a parallel path, the final $-ʔ$ disappears, leaving in its stead a compensatory perturbation of the tone (step 5). All the evidence presented above leads us to believe that the four types of diminutives in Wu, Gan, Yue and Min dialects came from a common source, the *jian* suffix.

4.2. The formation of the superlative diminutive in Wenzhou and Fuzhou

The superlative diminutive of Wenzhou displayed in Table 10 can be traced back to a proto-form formulizable as follows:

word + *er* + *jian*

For instance, the word $\text{ʔmuɔ}^{33} \eta^{212}$ ‘the smallest cat’ in the Wenzhou dialect can be derived from:

$\text{ʔmuɔ}^{33} \eta^{212} < * \text{ʔmuɔ} \etaʔ < * \text{ʔmuɔ} \eta \text{ kian}$ (猫儿团)

Using two diminutive suffixes to express the superlative diminutive meaning is not unusual in the area. In the Fuzhou dialect, there is no *er* suffixal diminutive, so a double *jian* suffix is used to carry the superlative diminutive meaning (Liang 1988):

	Basic Form	Comparative Diminutive	Superlative Diminutive
‘chair’	椅 ie^{21}	椅团 $ie^{21} \text{ kian}^{31}$	椅团团 $ie^{21} \text{ kian}^{31} \text{ kian}^{31}$
‘box’	盒 $aʔ^2$	盒团 $aʔ^2 \text{ kian}^{31}$	盒团团 $aʔ^2 \text{ kian}^{31} \text{ kian}^{31}$

5.0. THE SOURCE OF “JIAN”

A further, more basic question is this: Where did the suffixal diminutive *jian* come from? There are reasons to believe that the word *jian* is not an original Chinese word. Neither the word *jian* ‘child’ nor the four types of diminutives deriving from the *jian* suffix occur in Mandarin or Northern Chinese, but do occur in some varieties of southeast Chinese, such as in Wu, Min, Gan, Hui and Yue. The textual evidence from the preface of Gu Kuang’s poem and *Jiyun* also indicates that this was a regional word occurring in Old Min. Norman and Mei suggested that the Min word is related to the Austroasiatic etymon represented by Vietnamese *con* [kɔn] ‘child’. This etymon is very widely distributed throughout Austroasiatic: Khmer *koun*; Spoken Mon *kon*; Written Mon *kon*, *kwen*; Bru *kɔɔn*,

Chong *kheen*; Wa *kɔn*, Khasi *khu:n* (Norman and Mei 1976). I claim that not only is the Min word *jian* 'child' related to this Austroasiatic etymon, but also that the diminutives in some southeast Chinese dialects and Austroasiatic come from a common source. To confirm this, I would like to compare the diminutives in the Fuzhou dialect of Min and Vietnamese.

The core meaning of the word *jian* in the Fuzhou dialect and of Vietnamese *con* is 'son, child'. Both words can be used as affixes to express a diminutive. Table 12 shows us some examples of these related diminutives in the Fuzhou dialect and Vietnamese.

	Fuzhou dialect	Vietnamese
'boy'	丈夫团 <i>touŋ</i> ³¹ <i>muo</i> ⁵³ <i>kiaŋ</i> ³¹	<i>con giai</i> (son)
'last boy in a family'	尾团 <i>muoi</i> ²⁴ <i>kiaŋ</i> ³¹	<i>con thứ</i>
'lamb'	羊团 <i>yoŋ</i> ⁵¹ <i>kiaŋ</i> ³¹	<i>con chiên</i>
'bird'	鸟团 <i>tsɛu</i> ²⁴ <i>kiaŋ</i> ³¹	<i>con khên khên</i> (vulture)
'bucket'	桶团 <i>tʰøŋ</i> ²⁴ <i>kiaŋ</i> ³¹	<i>con bài</i> (playing cards)
'small knife'	刀团 <i>to</i> ⁵³ <i>kiaŋ</i> ³¹	<i>con dấ'u</i> (stamp)
'short person'	矮团 <i>ɛ</i> ²⁴ <i>kiaŋ</i> ³¹	<i>con ro'i</i> (waif)
'small prostitute'	媾团 <i>kau</i> ⁵³ <i>kiaŋ</i> ³¹	<i>con giang</i>

Table 12. *Diminutives in Fuzhou dialect and Vietnamese*

It is clear that the functions of *kiaŋ*³¹ in Fuzhou and *con* in Vietnamese are the same, both of them carrying the diminutive meaning, although the order of words is opposite: *kiaŋ*³¹ is a suffix in the Fuzhou dialect while *con* is a prefix in Vietnamese. If we accept the claim that the Min word *jian* is related to the Austroasiatic etymon represented by Vietnamese *con* 'child', as Norman and Mei suggested, it is also reasonable to believe that the two diminutives in the Fuzhou dialect and in Vietnamese are derived from a common source.

The next question is: What is the relationship between Chinese and Vietnamese and the Austroasiatic family in general. Before proceeding to answer this question, I wish to present some background information about Chinese languages.

In the pre-Qin 秦 period the Chinese language was spoken in a much smaller territory than it is today. Its center was the Yellow River Plain, but during the Zhou 周 dynasty it had doubtless already begun to spread to some peripheral areas. In subsequent centuries the Chinese-speaking peoples were to spread outward, gradually overcoming and assimilating their ethnic neighbors until they would finally occupy the vast territory that they do at the present time. It is well

known that ancient South China was almost exclusively populated by non-Chinese people whose identity and location can be designated by the term Yue 越 (粵). Based on historical documents, Yue was the name of a state that flourished during the fifth and sixth centuries BC in Zhejiang 浙江, Fujian 福建, Taiwan 台湾 and Jiangxi 江西; it is also part of the name for Vietnam, anciently Nanyue 南越 or 南粤, whose territory then extended into modern Guangdong 广东 and Guangxi 广西 and included the island of Hainan 海南. During the Qin and Han periods the term Baiyue 百越 'the hundred Yue' was used to refer to the various 'barbarians' inhabiting South China. Earlier, in the oracle bones and bronze inscriptions, the graph 越 was the pictograph of an axe. Here I may mention the fact that the rectangular axe and the shouldered adze were respectively associated with the Austronesians and Austroasiatics (Chang 1963). There is evidence to confirm that the Yue people was at least partly Austroasiatic (Lin 1958, Norman and Mei 1976, Wei 1982, Meng 1983, and Chen 1991).

As far as the *jian* word and the *jian* diminutive are concerned, three important phenomena should be noticed: First, their distribution is limited to southeast dialects of Chinese like Wu, Hui, Gan, Min and Yue, where the Baiyue people had been living. Second, in some ancient documents mentioned above, the word *jian* was recorded as an Old Min word, and the word did not occur in Central Plains Chinese. Third, *jian* and the *jian* diminutive are related to the corresponding morphemes *con* in Vietnamese. Considering these phenomena and referring to the historical background of this area, I would like to suggest that the *jian* word meaning 'child, son', and the *jian* suffixal diminutive can be regarded as part of a substratum from ancient Baiyue languages.

The hypothesis of a substratum of ancient Baiyue languages is highly attractive, but is still a matter dispute, since classical historical linguistics focuses on studying corresponding relationships among related languages, while language substrata belong to the realm of language contact. In order to make the substratum theory more accurate and practical, I used five criteria to define the substratum of ancient Baiyue languages (Chen 1995).

The use of the morphemes *zi* and *er*, both meaning 'child', as diminutive markers is commonly found in most Chinese dialects, including some Southern dialects. Indeed it is believed that these two suffixes have served as markers of the diminutive from the earliest times to the present (Chen 1995), and can even be traced back to an etymon at the Sino-Tibetan level (Matisoff 1995). It is reasonable to assume that the *jian* diminutive in the Southeast was eroded by pressure from the more prestigious *er* and *zi* diminutives further north, resulting in survival of the *jian* diminutive only in relic form. This can be seen in some dialects where the three diminutives coexist. For instance, in some Wu dialects, these three diminutives (*zi*, *er* and one derived from the *jian* diminutive) coexist, but the

former two are more productive and vigorous than the latter. In Yue and Gan dialects the one coming from the *jian* diminutive has been gradually eroded by the more standard dialects to the north, and the northern diminutives *er* and *zi*, pronounced *tsai* 仔 in Yue dialects, are steadily gaining ground.

6.0. CONCLUSION

In the past few years, a hypothesis of genetic relationship between Chinese and Austronesian has been proposed and elaborated by Laurent Sagart (1993, 1994, 1995). In this paper I am not going to argue against the hypothesis but rather give a warning: It is very important to distinguish between cognate words and substratum words in studying the relationship between Chinese and Austronesian. More seriously, in most cases, substratum words belong to basic vocabulary, such as the word *jian* 'child' in Min dialects, which makes the distinction between cognate words and substratum words more difficult. If we take substratum words as cognates, the wrong conclusion will be drawn.

In this paper I have discussed the evolution of the four types of diminutives in Wu, Min, Gan and Yue dialects. As far as the relationship between suffixal *-ʔ* and tonal alternation is concerned, I have argued that it was the disappearance of the suffixal *-ʔ* that caused tonal change. It is my view that these four types of diminutives can be traced back to one common source, the *jian* suffixal diminutive. Having compared the *jian* diminutive in Min dialects with the *con* diminutive in Vietnamese, I have argued that the *jian* word and the *jian* diminutive are related to the Austroasiatic etymon represented by Vietnamese *con* and the *con* diminutive. I have treated the *jian* and *jian* diminutive in some southern Chinese dialects as reflecting a substratum of the ancient Baiyue languages.

REFERENCES

- CHANG Kwang-chih 张光直. 1963. *Archaeology of Ancient China*. New Haven.
- CHEN Xiwu 陈锡梧. 1966. "A brief discussion of tone sandhi in the Taishan dialect" 台山方言变调初探. *Zhongguo Yuwen* 中国语文 1.
- CHEN Zhongmin 陈忠敏. 1991. "The relics of language substratum and the culture of the Baiyue people" 语言底层残迹与百越民族文化. *Zhongguo wenhua yuan* 中国文化源 China: Shanghai Baihua Press.
- _____. 1992. "Tone changes of the characters 'xia, zhu, ji' in the Ningbo dialect and reasons for them" 宁波方言“虾,猪,鸡”类字声调变读及其原因. *Yuyan Yanjiu* 语言研究 2.
- _____. 1993. "On the nature of the entering-tone characters in the Shaowu dialect" 邵武方言入声化字的实质. *Bulletin of the Institute of History and Philology, Academia Sinica* 64:4.
- _____. 1995. "Expression and distribution of pre-glottal stops as a substratum of ancient Baiyue languages in today's southern Chinese" 作为古百越语底层形式的先喉塞音在今汉语南方方言里的表现和分布. *Minzu Yuwen* 民族语文 3.
- _____. 1998. "A discussion of the differences in pronunciation of the *yu* rhyme category in Wu and neighboring dialects, with some additional thoughts on its reconstruction within the Jinling Qieyun" 吴语及邻近方言鱼韵的读音 层次 ---- 兼论‘金陵切韵’鱼韵的音值. a paper for 6th International Symposium on Chinese Languages and Linguistics. Taipei.
- _____. 1999. "On the diminutives in Min dialects" 论闽语的小称. Monograph Series No.14, *Journal of Chinese Linguistics*.
- CHOMSKY, Noam, and Morris HALLE. 1968. *The Sound Pattern of English*. New York: Harper & Row.
- EGEROD, Søren. 1983. "A brief description of the Nanxiong dialect" 南雄方言记略. *Fangyan* 方言 2.

- FROMKIN, V. A. (ed.) 1978. *Tone: a linguistic survey*. New York: Academic Press.
- FU Guotong 傅国通. 1988. "On morphophonemic changes in the Wuyi dialect" 武义方言的音变. Paper presented at First International Symposium on Wu Dialects. Hong Kong.
- HAUDRICOURT, André-Georges. 1954. "De l'origine des tons en vietnamien." *Journal asiatique* 242: 68-82.
- HE Cheng 何成 et al. 1960. *Chinese-Vietnamese Dictionary* 越汉语辞典. Beijing: Commercial Press.
- HUANG Jinghu. 黄境湖. 1983. "On the special changed sounds in the Houlu dialect of Datian County" 大田后路话的特殊音变. Xiamen: *Journal of Xiamen University (Social Science)* Monograph Series in Linguistics and Literature 厦门大学学报(社会科学)语言文学专刊.
- LIANG Yuzhang. 梁玉璋. 1989. "On the character 'Jian' in the Fuzhou dialect" 福州方言的“团”字. *Fangyan* 方言 3.
- LIN Huixiang. 林惠祥. 1958. "The relationship between Malaysian and ancient southern Chinese" 南洋马来族与华南古民族的关系. Xiamen: *Journal of Xiamen University (Social Science)*. 厦门大学学报(社会科学) Vol. 1.
- LUO Kangning. 罗康宁. 1986. "On the changed tones of numerals, pronouns and adverbs in the Xinyi dialect" 信宜话数词、代词、副词的变调. *Zhongguo Yuwen* 中国语文 3.
- MAI Yun. 麦耘. 1995. "On the special high-rising tone in the Guangzhou dialect" 广州话的特殊35调. *Studies on Phonology and Dialectology*. 音韵与方言研究. Guangzhou: Guangdong People's Press.
- _____. 1995. "Changed tones in morphemes, their common origin and development in the Guangzhou dialect" 广州话的语素变调及其来源与嬗变. *Studies on Phonology and Dialectology*. 音韵与方言研究. Guangzhou: Guangdong People's Press.
- MATISOFF, James A. 1970. "Glottal dissimilation and the Lahu high-rising

tone: a tonogenetic case-study." *Journal of the American Oriental Society*. 90.1: 13-44.

_____. 1973. "Tonogenesis in Southeast Asia." In Larry M. Hyman, ed., *Consonant Types and Tone*, pp. 71-95. Linguistics Program, University of Southern California.

_____. 1995. "Sino-Tibetan palatal suffixes revisited." In Yoshio NISHI, James A. Matisoff, & Yasuhiko NAGANO, eds; *New Horizons in Tibeto-Burman Morphosyntax*. National Museum of Ethnology, Osaka. *Senri Ethnological Studies* 41: 35-91.

MEI Tsu-lin. 1970. "Tones and prosody in Middle Chinese and the origin of the rising tone." *Harvard Journal of Asiatic Studies* 30: 86-110.

MENG Wentong. 蒙文通. 1983. "*Studies on Yue History*" 越史丛考. Beijing: People's Press.

NORMAN Jerry and Tsu-lin Mei. 1976. "The Austroasiatics in ancient south China: some lexical evidence." *Monumenta Serica* Vol. XXXII, 274-301.

OHALA, J.J. 1978. *The production of tone*. In Fromkin 5-39.

PAN Wuyun 潘悟云. 1995. "Wen-Chu and Min dialects" 温处方言与闽语. *A Series of Books on Comparative Studies of the Dialects in Southeast Chinese I*. 中国东南方言比较研究丛书 Shanghai: Shanghai Educational Press.

_____. 1988. "Tone sandhi and changed sounds in the Qingtian dialect" 青田方言的连读变调和小称音变. *A Series of Books on Wu Dialects* 吴语论丛 Shanghai: Shanghai Educational Press.

PULLEYBLANK, Edwin G. 1962. "The consonantal system of Old Chinese (Part II)." *Asia Major* 9: 206-265.

SAGART, Laurent. 1993. "Chinese and Austronesian: evidence for a genetic relationship." *Journal of Chinese Linguistics* 21.1: 1-62.

_____. 1994. "Old Chinese and Proto-Austronesian." *Oceanic*

Linguistics 33.2:271-308.

. 1995. "Some remarks on the ancestry of Chinese." *The Ancestry of the Chinese Language*. Monograph Series No.8, *Journal of Chinese Linguistics* 195-223.

TING Pan-hsin 丁邦新. 1988. "Some Min features in Wu dialects". 吴语中的闽语成分 *Bulletin of the Institute of History and Philology*. Academia Sinica 59:1.

WEI Qingwen 韦庆稳. 1982. "On the Ancient Baiyue languages" 试论百越民族的语言. *A Series of Books on the History of Baiyue Nationality*. 百越民族史论集. Beijing: Chinese Social Science Press.

WEIDERT, Alfons. 1987. *Tibeto-Burman Tonology*. Amsterdam and Philadelphia: John Benjamins.

YAN Sen 颜森. 1993. *Studies on the Lichuan Dialect* 黎川方言研究. Beijing: Chinese Social Science Press.

ZHANG Min 张敏 and Lieting Zhou 周烈婷. 1993. "The Phenomenon of 'erhua' in Yue dialects." 粤方言里的 "儿化". a paper for The Fourth International Conference on Cantonese and Other Yue Dialects.

ZHENGZHANG Shangfang 郑张尚芳. 1980. "The sound change of the *er* suffix in the Wenzhou dialect (I)." 温州方言儿尾词的语音变化(一). *Fangyan* 方言4.

. 1981. "The sound change of the *er* suffix in the Wenzhou dialect (II)." 温州方言儿尾词的语音变化(二). *Fangyan* 方言1.