

A NOTE ON TONE CHANGE IN THE CH'AO-CHOU DIALECT*

PANG-HSIN TING

*Academia Sinica and
National Taiwan University*

Tone change in the Ch'ao-chou dialect is one major evidence of the theory of lexical diffusion proposed by Professors Cheng and Wang (1972; cf. Wang 1969, Wang and Cheng 1970, Chen and Wang 1975). They observe that, in the Ch'ao-chou dialect, the development of Ancient Chinese tone III syllables with voiced and sonorant initials exhibits a distribution in which the number of changed forms (2b 陽上) is approximately equal to that of the unchanged forms (3b 陽去), without any phonological conditions. The purpose of this paper is to show that the original data, which are based on the *Han-yü Fang-yin Tzu-hui*, actually contain two levels of divergent readings, i. e., colloquial and literary. Unusual distribution is due to the mixture of these two systems of readings.

In the Ch'ao-chou dialect there are eight tones; 1a, 1b, 2a, 2b, 3a, 3b, 4a, and 4b. It is a well-known fact that the tone split into categories (a) and (b) in Chinese dialects is conditioned by the voicing of Ancient Chinese initials. In other words, the same Ancient Chinese tone would change in the Ch'ao-chou dialect to tone (a) when the initial was unvoiced, and to tone (b) when the initial was voiced. Here, according to Cheng and Wang, the reflexes of Ancient Chinese tone III syllables with voiced

* This paper was presented at the 11th International Conference on Sino-Tibetan Languages and Linguistics, October 20-22, 1978. I am grateful to Professors Fang Kuei Li, Paul Jen-kuei Li, and Matthew Chen for their comments on an early version of this paper, and also to Professor Lynn Struve for her editorial assistance.

and sonorant initials in the Ch'ao-chou dialect should be tone 3b only, but actually they are mainly both tones 2b and 3b. This demonstrates a situation of even split, as the following statistics show:

	2b	3b
Tone III syllables with voiced obstruent initials	56	61
Tone III syllables with sonorant initials	69	46

With the aid of a computer, Cheng and Wang searched for the condition of the tone split in all possible phonological elements of both the synchronic Ch'ao-chou system and the Ancient Chinese categories from which the contemporary elements are derived. These phonological conditions are listed as follows:

- 1) difference in the voiced obstruent initials of Ancient Chinese
- 2) difference in the modern initials which underwent the devoicing of initial obstruents
- 3) difference in the sonorant initials of Ancient Chinese
- 4) difference in the modern initials which derived from the Ancient Chinese sonorants
- 5) distinction of the four divisions of Ancient Chinese vowels
- 6) distinction of the rounded and unrounded classification of Ancient Chinese medials
- 7) difference in the sixteen final groups of Ancient Chinese

As the results of the computer analysis show, none of these can account for the tone split. Cheng and Wang also found that vowel nasalization occurs with tone 3b only; but again this phenomenon does not show conditions from which tone split originates. Moreover, they tried in vain to find in the modern Ch'ao-chou dialect possible contexts in which the tone split might occur. Thus, finally they came to the conclusion that the tone change in question is a system-internal development which, indeed, has been caught "in mid-stream" as a case of lexical diffusion.

In the Cheng and Wang computerized dictionary, there are in total

eighteen dialects. Except for the Shanghai dialect, all data are based on the *Han-yü Fang-yin Tzu-hu*. Among these dialects, Ch'ao-chou is the only one that shows the unique change of tone split of Ancient Chinese tone III syllables. When I came across this data, it seemed very strange to me that no other dialect shares this unusual tonal development. If the theory of lexical diffusion is truly the right explanation, it is natural to expect to see at least one more example. But there is none. Therefore I suspected that there might be another explanation of some sort, which could not be discovered by a computer and so was overlooked by Cheng and Wang.

Let us start by examining the pairs of items, cited by Cheng and Wang, which were homophonous in Ancient Chinese and now are in different tones:

2b			3b		
尙	siaŋ	'still'	上	tsiẽ	'to ascend' ¹
后	au	'afterwards'	候	hau	'to wait'
校	hau	'school'	效	hau	'to imitate'
電	tien	'lightning'	殿	tōi	'palace'
下	hia	'to descend'	夏	he	'summer'
備	pi	'to prepare'	鼻	phĩ	'nose'
厲	li	'severe'	例	li	'example'
恙	iaŋ	'illness'	樣	iẽ	'pattern'
悟	ŋo	'to understand'	誤	gou	'mistake'
務	bu	'affair'	霧	bu	'fog'
淚	lui	'tear'	類	lui	'class'
蔓	bueŋ	'to creep'	萬	bueŋ	'ten thousand'

As some of these homophonous pairs in Ancient Chinese split into different tones, 2b and 3b, their finals also changed. For example, on the

1. This meaning should be changed to 'above', since 上 'to ascend' was originally a tone II word in Ancient Chinese.

one hand we have *siaŋ* “尙 still”, *iaŋ* “恙 illness”, and on the other we have *tsĩẽ* “上 to ascend”, *ĩẽ* “樣 pattern”. This parallel phenomenon immediately reminds me that in the Southern Min dialects nasalization of vowels occurs in the colloquial readings only. (Cf. Sung 1973) The relation between *iaŋ* and *ĩẽ* might be a distinction between literary and colloquial readings. By checking over the whole Ch'ao-chou data in the *Tzu-hui*, I found first the divergent readings of characters of the Ancient *yáng, yǎng, yàng* (陽, 養, 漾) rimes:

literary reading			colloquial reading		
		-iaŋ			-ĩẽ
(A)	漲	tsiaŋ 3a 'to rise'	張	tĩẽ 1a	'a surname'
	章	tsiaŋ 1a 'chapter'	掌	tsĩẽ 2a	'palm'
	商	siaŋ 1a 'merchant'	傷	sĩẽ 1a	'wound'
	壤	ziaŋ 2a 'soil'	讓	nĩẽ 3b	'to yield'
	良	liaŋ 1b 'good'	糧	nĩẽ 1b	'grain'
	將	tsiaŋ 1a 'general'	漿	tsĩẽ 1a	'fluid'
	疆	kiaŋ 1a 'border'	薑	kĩẽ 1a	'ginger'
(B)	亮	liaŋ 2b 'bright'	輜	nĩẽ 3b	'classifier of vehicle'
	尙	siaŋ 2b 'still'	上	tsĩẽ 3b	'above'
	恙	iaŋ 2b 'illness'	樣	ĩẽ 3b	'pattern'

It is not too difficult to determine that the characters in the left column are literary words and those in the right column colloquial words. In most modern Chinese dialects literary and colloquial readings are mixed up in daily conversation, and it is not always easy to distinguish the difference. But we can still see the distinction under certain circumstances, especially in the Southern Min dialect. In section (B) above, we can clearly see that the left three items are all in tone 2b, as against the right ones in tone 3b.

Below are listed other correspondences between literary and colloquial readings:

literary reading				colloquial reading			
-ia				-e			
(A)	假	kia 2a	'holiday'	假	ke 2a	'false'	
	賈	kia 2a	'a surname'	嫁	ke 3a	'to marry'	
	嘉	kia 1a	'fine'	家	ke 1a	'home'	
	雅	ɲia 2a	'elegant'	牙	ge 1b	'tooth'	
(B)	下	hia 2b	'to descend'	夏	he 3b	'summer'	
				罵	me 3b	'to scold'	

-u, -o				-ou			
(A)	佈	pu 3a	'to inform'	布	pou 3a	'cloth'	
	途	t'u 1b	'road'	圖	tou 1b	'picture'	
	櫓	lu 2a	'scull'	滷	lou 2a	'thick gravy'	
	母	bo 2a	'mother'	畝	bou 2a	'Chinese acre'	
(B)	護	hu 2b	'to protect'	步	pou 3b	'step'	
	互	hu	'mutual'	度	tou 3b	'limit'	
	暮	mo 2b	'evening'	渡	tou 3b	'to cross over'	
	慕	mo 2b	'to desire'	鍍	tou 3b	'to gild'	
	墓	mo 2b	'tomb'	怒	nou 3b	'angry'	
				露	lou 3b	'dew'	
	悟	ɣo 2b	'to awake'	誤	gou 3b	'to be mistaken'	

-au				-o			
(A)	茅	mau 1b	'reeds'	毛	mo 1b	'hair'	
	禱	tau 2a	'to pray'	倒	to 2a	'to fall'	
	陶	t'au 1b	'a surname'	桃	t'o 1b	'peach'	
	勞	lau 1b	'weary'	牢	lo 1b	'jail'	
	薅	hau 1a	'to weed'	好	ho 2a	'good'	

A Note on Tone Change in the Ch'ao-chou Dialect

(B)	冒	mau 2b	'to risk'
	貌	mau 2b	'appearance'
	暴	pau 2b	'violent'
	導	tau 2b	'to guide'
	盜	tau 2b	'robber'
	傲	ɲau 2b	'proud'

帽	bo 3b	'hat'
號	ho 3b	'mark'

		-iəu	
(A)	漂	p'iəu 1a	'to look fresh'
	焦	tsiəu 1a	'burned'
	喬	k'iəu 1b	'high'
(B)	妙	miəu 2b	'wonderful'

		-ie	
票	p'ie 3a	'ticket'	
蕉	tsie 1a	'banana'	
橋	k'ie 1b	'bridge'	
廟	bie 3b	'temple'	
轎	kie 3b	'sedan-chair'	

		-eŋ	
(A)	秉	peŋ 2a	'to hold'
	銘	meŋ 1b	'to carve'
	睛	tseŋ 1a	'eye'
(B)	盛	seŋ 2b	'flourish'
	競	keŋ 2b	'to compete'
	令	leŋ 2b	'to order'
	淨	tseŋ 2b	'clean'

		-ě, -ĩ	
丙	pĩ 2a	'the third of the Ten Stems'	
名	mĩ 1b ²	'name'	
井	tsě 2a	'well'	
靜	tsě 2b	'calm'	
鄭	tě 3b	'a surname'	
病	pě 3b	'sickness'	
命	mĩ 3b	'command'	

		-ieŋ	
(A)	憐	lieŋ 1b	'to pity'
	堅	kieŋ 1a	'solid'
(B)	電	tieŋ 2b	'electricity'

		-ōĩ	
蓮	nōĩ 1b	'lotus'	
肩	kōĩ 1a	'shoulder'	
殿	tōĩ 3b	'palace'	

2. Nasalization symbols are usually omitted on the vowels after nasal initials, but it is not always consistent in the *Tzu-hui*.

Since the differences of tones and finals correlate with each other in all the (B) sections above,³ and consistently tone 2b occurs in the literary readings where 3b occurs in the colloquial, we have solid evidence to say that there are two layers of readings mixed in the Ch'ao-chou data of the *Tzu-hui*. No convincing theory can be developed from this data. As is well known, literary readings sometimes may be identical with the colloquial for some groups of items. I quote only items with different readings in the list above.

Li (1959), Chan (1959), and Choy (1976), who all studied the Ch'ao-chou dialect, mentioned the difference of literary and colloquial readings and gave some examples. But, unfortunately, they did not make a systematic comparative study of the differences. This seems definitely necessary to me. According to my observation, the tonal difference of the two readings is as follows:

Literary	Colloquial
1a	1a
2a	2a
3a	3a
4a	4a
1b	1b
{2b}	2b
{3b}	3b
4b	4b

Tones 2b and 3b merged into one tone in the literary readings, as is manifested in most Chinese dialects, and they probably have the same tone value equal to tone 2b of the colloquial readings in the Ch'ao-chou dialect. Hence the 3b items of the literary readings would perform as 2b in a system confused by the two readings. This is why the 2b items in

3. Sometimes, the initials also indicate a difference, such as m- to b-, l- to n-, ŋ- to g-.

question in the Ch'ao-chou dialect almost always occur as literary readings⁴, and 3b items as colloquial.

By using the dictionary compiled by Choy, I found quite a few items that have double readings.⁵ For example:

		A	B
假	'false'	kia 2a	ke 2a
下	'to descend'	hia 2b	e 3b
張	'a surname'	tsiaŋ 1a	tĩō 1a ⁶
梁	'beam'	liaŋ 1b	nio 1b
匠	'workman'	thiaŋ 2b	th'ĩō 3b
上	'above'	siaŋ 2b	tsĩō 3b
布	'cloth'	po 3a	pou 3a
圖	'picture'	t'u 1b	tou 1b
路	'road'	lu 2b	lou 3b
佬	'swindler'	lau 2a	lo 2a
保	'to protect'	pau 2a	po 2a
抱	'to embrace'	pau 2b	po 2b
聘	'to engage'	p'ei 3a	p'ĩǎ 3a
坪	'a plain'	p'ei 1b	p'ĩǎ 1b
命	'life'	meŋ 2b	mia 3b
間	'classifier for house'	kaŋ 1a	kǎi 1a ⁷
殿	'palace'	tiaŋ 2b	tǎi 3b
飯	'rice'	huaŋ 2b	pŋ 3b
斷	'to cut off'	tuaŋ 2b	tŋ 2b

Compared to the list of items given previously, it is quite clear that items

4. There are a few exceptions probably due to contamination.

5. Professor Kun Chang (1975: 662-663) also cited some examples with double readings from Li Yung ming 1959, Chan Po-hui 1959, and *Han-yü Fang-yin Tzu-hui*. His charts 12 and 13 clearly show the irregular tonal split of Ancient C2 words in the Ch'ao-chou dialect.

6. Choy's -ĩō is equal to -ĩē in the *Tzu-hui*.

7. Choy's -ǎi is equal to -ōi in the *Tzu-hui*.

in column A are literary readings and those in column B are colloquial. Special attention should be paid to two items, 抱 'to embrace' and 斷 'to cut off', which are in the same tone 2b in both columns. Actually these two were tone II syllables with voiced initials in Ancient Chinese, so they should not be identified as Ancient Chinese tone III syllables with voiced initials which changed to 2b in literary readings and 3b in colloquial, as shown above.

As Egerod (1976) points out, the existence of several layers in Min is pertinent not only to the description of the different manifestations of colloquial and literary forms, but also to the analysis of forms which are purely colloquial in usage. I believe that colloquial Min probably derived from Archaic Chinese at least by Han times, but the exact process remains to be worked out.

REFERENCES

- Chan, Po-hui. 1959. Ch'ao-chou Fang-yen (The Ch'ao-chou Dialect). *Fang-yen he P'u-t'ung-hua Ts'ung-k'an*, Vol. 2, 39-120.
- Chang, Kun. 1975. Tonal Developments among Chinese Dialects. *Bulletin of the Institute of History and Philology*, Vol. 46, Pt. 4, 636-710.
- Chen, Matthew Y. and Wang, William S-Y. 1975. Sound Change: Actuation and Implementation. *Language* 51, 255-281.
- Cheng, Chin-chuan and Wang, William S-Y. 1972. Tone Change in Chaozhou Chinese: A Study of Lexical Diffusion. *Papers in Linguistics in Honor of Henry and Renee Kahane*, ed. by B. Kachru et al, 99-113.
- Choy, Chun-ming. 1976. A Dictionary of the Chau-chou Dialect. Taipei.
- Egerod, Søren. 1976. Tonal Splits in Min. *Journal of Chinese Linguistics*, Vol. 4, No. 1, 108-111.
- Han-yü Fang-yin Tzu-hui. 1962. Peking University.
- Li, Yung-ming. 1959. Ch'ao-chou Fang-yen (The Ch'ao-chou Dialect). Shanghai.

- Sung, Margaret M. Y. 1973. A Study of Literary and Colloquial Amoy Chinese. *Journal of Chinese Linguistics*, Vol. 1, No. 3, 414-436.
- Wang, William S-Y. 1969. Competing Changes as a Cause of Residue. *Language* 45, 9-25.
- Wang, William S-Y. and Cheng, Chin-chuan. 1970. Implementation of Phonological Change: The Shuang-feng Case. *Papers from the 6th Regional Meeting*, Chicago Linguistic Society, 552-559.

潮州方言中聲調演變的問題

丁 邦 新

(摘 要)

王士元和鄭錦全 (Cheng and Wang 1972) 提出詞彙擴散理論的主要根據之一是潮州方言。這個方言有八個調，中古的濁聲母去聲字今音分讀陽上和陽去，分讀的比例非常接近：

濁去變陽上	56	次濁去變陽上	69
濁去變陽去	61	次濁去變陽去	46

他們利用電腦檢查，找不出任何分化的條件。檢查的項目包括七項：(1) 中古音濁聲母，(2) 濁聲母清化後的潮州聲母，(3) 中古音次濁聲母，(4) 次濁聲母演變到潮州的各種聲母，(5) 四等的區別，(6) 合口介音的有無，(7) 十六攝的韻母。這七個項目可說已經包括各種可能的音韻條件，沒有一項能夠清楚地顯示出濁母去聲字分化為陽上及陽去的理由。他們又發現變為陽去的例字中有鼻化韻母，而變陽上的例字中沒有，也許這是一個分化的條件，可能古潮州語中就有了不同，但是電腦找出來的結果，鼻化韻母也不是條件；他們還進一步試找那些字出現的上下文，也沒有任何線索。因此，他們認為這是詞彙擴散的關係，潮州調的演變情形正代表從陽去變陽上的中途站，這是一個活語言中詞彙擴散到半路的最清楚的例證。捨此以外，別無其他解釋。

那時他們所用的電腦中有十八種方言資料，除上海方言以外，其他十七種都是根據漢語方音字匯而來，只有潮州方言有這樣獨特的現象。對於這一點，我一直不了解何以只有潮州方言如此。如果用詞彙擴散的理論來解釋是正確的話，為什麼沒有其他方言有類似的情形？如果用結構學派的語音律來解釋，差不多都可以解釋百分之八十的方言現象，只有潮州方言無法解釋。於是，我以姑妄一試的心情把潮州方言的資料

逐字細看一過，發現這份資料本身有問題，其中混雜了文白兩種讀音。如果釐清文白兩種系統，那麼調的分化就跟其他方言一樣，並無特出之處。以下首先列出鄭王兩氏認為最無法解釋的對比字，這些字在中古完全同音，而在潮州分讀為陽上及陽去：

陽 上		陽 去	
例字	潮州音	例字	潮州音
尙	siaŋ	上	tsiẽ
后	au	候	hau
校	hau	效	hau
電	tien	殿	tõĩ
下	hia	夏	he
備	pi	鼻	phĩ
厲	li	例	li
恙	iaŋ	樣	iẽ
悟	ŋo	誤	gou
務	bu	霧	bu
淚	lui	類	lui
蔓	bueŋ	萬	bueŋ

首先我們發現中古的同音字在潮州分讀陽上、陽去的同時，有些韻母也不同。例如尙、恙是 siaŋ、iaŋ，而上、樣是 tsiẽ、iẽ，有平行的現象。我們知道鼻化音只出現在閩南話的白話音中，因此，根據這個線索就找到陽、養、漾三韻的文白異讀。以下把中古同聲母的字比照排列，加注調類。

文 言 -iaŋ				白 話 -iẽ		
漲 tsiaŋ ²	章 ˊtsiaŋ	商 ˊsiaŋ		張 ˊtiẽ	掌 ˊtsiẽ	傷 ˊsiẽ
壤 ˊziaŋ	良 ˊliaŋ	將 ˊtsiaŋ (將軍)		讓 niẽ ²	糧 ˊniẽ	漿 ˊtsiẽ
疆 ˊkiaŋ	將 tsiaŋ ² (大將)			薑 ˊkiẽ	醬 tsĩẽ ²	
.....						
尙 ˊsiaŋ	恙 ˊsiaŋ	亮 ˊliãŋ		上 tsiẽ ²	樣 iẽ ²	輛 niẽ ²

文言部份大致都是文言字眼，和白話對照之下可以很清楚地看出來，正好中古濁去變讀爲陽上的都是文言音，而讀陽去的則爲白話音。

現在提出顯明的例子分別比較文白異讀的情形，隨處舉例，在音標四角分別標示調類，虛線之下的就是陽上和陽去的對比。如果文白讀音相同，就不再舉例。

文 言				白 話			
假攝開口二等 -ia				-e			
假 ˊkia (放假)	賈 ˊkia (姓)			嫁 ke²	假 ˊke (真假)		
嘉 ˊkia	雅 ˊɲia			家 ˊke	牙 ˊge		
.....							
下 ˊhia (下山)				夏 he²	罵 me²		
遇攝合口一等 -u, -o				-ou			
佈 pu²	途 ˊt'u	櫓 ˊlu		布 pou²	圓 ˊtou	滷 ˊlou	
母 ˊbo				畝 ˊbou			
.....							
護 ˊhu	互 ˊhu	暮 ˊmo		步 pou²	度 tou²	渡 tou²	
慕 ˊmo	墓 ˊmo			鍍 tou²	怒 nou²	露 lou²	
悟 ˊɲo				誤 gou²			
效攝開口一等 -au				-o			
茅 ˊmau	禱 ˊtau	陶 ˊt'au		毛 ˊmo	倒 ˊto	桃 ˊt'o	
勞 ˊlau	薈 ˊhau			牢 ˊlo	好 ˊho		
.....							
冒 ˊmau	貌 ˊmau			帽 bo²			
暴 ˊpau	導 ˊtau	盜 ˊtau		號 ho²			
傲 ˊɲau							
效攝開口三等 -iəu				-ie			
漂 ˊp'iəu (漂亮)	焦 ˊtsiəu			票 p'ie²	蕉 ˊtsie		
喬 ˊk'iəu				橋 ˊk'ie			
.....							
妙 ˊmiəu				廟 bie²	轎 kie²		

梗攝開口三等	-eŋ					-ẽ, -ĩã
秉 ˈpeŋ	銘 ɛˌmeŋ	晴 ˌtseŋ		丙 ˈpĩã	名 mĩã	井 ˈtsẽ
				靜 ˌtsẽ		
.....						
盛 ˌseŋ	競 ˌkeŋ	淨 ˌtseŋ		鄭 tẽ²	病 pẽ²	
令 ˌleŋ				命 mĩã²		
山攝開口四等	-ieŋ					-õĩ
憐 ɛˌlieŋ		堅 ˌkieŋ		蓮 ɛˌnõĩ		肩 ˌkõĩ
.....						
電 ˌtieŋ				殿 tõĩ²		

從上面這些例子，可以看出漢語方音字彙的潮州音裏一定有文白異讀的混雜。還有些個別的例子可能半文半白，像武鳴土語中有半官半粵的借字一樣。有些韻文白兩讀相同，很難分辨。用這樣的資料來作統計是一件相當不可靠的事。再根據這樣的統計推論語音演變的路向，自然令人無法信服。我推測潮州的文言音，陽上陽去同調，調值正和白話音中的陽上一樣，白話音的陽去另成一調。因此在文白混雜的資料裏，中古濁去的字凡是碰到文言音就都讀成陽上了，因此跟讀陽去的白話音有對比現象。

在蔡俊明 (Choy 1976) 的潮語詞典裏，可以找到下列各字的異讀：

	一	二
假	ˈkia	ˈke
下	ˌhia	e²
張	ˌtsiang	ˌtĩõ
梁	ˌlian	ˌnio
匠	ˌthian	th'ĩõ²
上	ˌsian	tsĩõ²
布	po²	pou²
圖	ˌt'u	ˌtou
路	ˌlu	lou²

佬	ˈlau	ˈlo
保	ˈpau	ˈpo
抱	ˈpau	ˈpo
聘	p'eq̚	p'iã̚
坪	ɛp'eq̚	ɛp'iã̚
命	ˈmeŋ	mĩã̚
間	ˌkaŋ	ˌkãĩ
殿	ˈtiaŋ	tãĩ̚
飯	ˈhuaŋ	pŋ̚
斷	ˈtuaŋ	ˈtŋ

把這些異讀跟前面的字表作一對比，立刻可以發現第一欄是文言音，第二欄是白話音。這些例字正可以作為上文討論的註腳，通常文白兩讀都是同調的，只有中古濁去聲的字在文言讀陽上時，在白話就成為陽去了。