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## ON STRATIFYING SOUND CORRESPONDENCE

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### ABSTRACT

In this paper, difficulties of stratifying sound correspondences are discussed. In principle, there is more than one way to stratify one-to-many correspondence without sound condition, and one often can not determine whether it is due to internal change or language contact. “A layer consistent with correspondences of kernel words” is proposed as the key stratum, which can be used to clarify the historical relationship between two or more languages.

### SUBJECT KEYWORDS

Stratifying Sound correspondence Kernel Words

### I. MULTILATERAL CORRESPONDENCES

The following discussion covers only tone correspondences. If a morpheme has more than one pronunciation, it may suggest that they come from different layers. In fact, the origins of this situation are far more complicated. Take a look at the following tone correspondences between Chinese and Kam-Tai languages<sup>1</sup> at first:

Southwestern Mandarin(SM)	Longzhou Zhuang(ZL)	Examples
1	1	tə:m <sup>1</sup> 三
1	1	kva:ŋ <sup>1</sup> 光 (明)

Table 1 Tone correspondences between SM and ZL

The examples seem to show that their tone correspondences are the same – tone 1 to tone 1. However, when more Kam-Tai languages are added into comparative studies, their differences hidden by the misleading surface resemblance can be discovered, as below:

Correspondence	SM	ZW	ZL	BY	DX	DD	DR	ML	SS	MN	Examples
Style 1	1	1	1	1	1	1	1	1	1	1	ta:m <sup>1</sup> 三
Style 2	1	6	1	5	6	6	6	5	3	5	kva:n <sup>1</sup> 光(明)

Table 2 Correspondences between SM and Kam-Tai languages

It turns out that the more languages we compare; the more styles of sound correspondences will be obtained. So, if one expects to uncover all different correspondences in the history of the languages, it may not be enough only to compare two modern languages.

## 2. SOUND SIMILARITY AND STRATIFICATION

It is straightforward that Style 2 may represent the layer from Southern Mandarin because the tone value in each Kam-Tai language above is similar to that of Southern Mandarin (SM):

Correspondence	SM	ZW	ZL	BY	DX	DD	DR	ML	SS	MN	Examples
Style 2	1	6	1	5	6	6	6	5	3	5	kva:n <sup>1</sup> 光(明)
Tone value	44	33	33	33	33	33	33	44	33	44	

Table 3 Style 2 of correspondences between SM and Kam-Tai language

However, for ancient materials, it may be not so easy to find such similarity since the tone value of that time depth has often vanished, and then it will bring us difficulties on the actual type or origin of a kind of sound correspondence. (Note: When two reconstructed languages are compared below, it implies that many languages are compared because the reconstructed language covers many daughter languages) For example:

Meaning	Chinese character	Sound classification					MC <sup>2</sup>	PT <sup>3</sup>
folk	风	平	帮	东	合	三	bvŋ1	fŋ1
fence	笆	平	帮	麻	开	二	pɛ1	fal
square	方	平	帮	阳	合	三	pjwəŋ1	fŋ1
soldier	兵	平	帮	庚	开	三	bjɛŋ1	pŋ1
pigtail	编	平	帮	仙	开	三	bien1	pien1
whip	鞭	平	帮	仙	开	三	bien1	pien1

Table 4 Tone 1 of Middle Chinese (MC) to Tone 1 of Proto-Tai (PT)

Meaning	Chinese character	Sound classification					MC	PT
sew	缝	平	并	鍾	合	三	bjɔŋ2	fŋ1
harrow	杷	平	并	麻	开	二	bɛ2	phəl
sink	沉	平	澄	侵	开	三	dʒyŋ2	tsom1
pond	塘	平	定	唐	开	一	daŋ2	thaŋ1

Table 5 Tone 2 of Middle Chinese to Tone 1 of Proto-Tai

Meaning	Chinese character	Sound classification					MC	PT
friend	朋	平	并	登	开	一	bəŋ2	bəŋ2
plain	平	平	并	庚	开	三	bjɛŋ2	Ben2
coil	盘	平	并	桓	合	一	bæŋ2	bun2
pan	盆	平	并	魂	合	一	bæin2	bun2
bottle	瓶	平	并	青	开	四	biŋ2	biŋ2

Table 6 Tone 2 of Middle Chinese to Tone 2 of Proto-Tai

These correspondents can be summarized in the following table:

Middle Chinese	Proto-Tai	Group
1	1	A
2	1	B
2	2	C

Table 7 Summary of correspondences between Middle Chinese and Proto-Tai

We could not tell one layer from another by sound similarity because the tone value is often difficult to reconstruct.

### 3. STRATIFICATION UNDER SOUND CONDITION

For the correspondences between Middle Chinese and Proto-Tai in the above table, there may be two kinds of interpretation available. Suppose one can find some sound condition controlling the correspondences as below:

Sound Condition	Middle Chinese	Proto-Tai	Sound Condition	Group
Y	1	1		A
Z	2	1	W	B
	2	2	X	C

Table 8 Sound condition of correspondences between Middle Chinese and Proto-Bai

1. Starting from the Chinese side, the tone 2 of Chinese corresponds to tone 1 of Tai under W condition, but to tone 2 of Tai under the X condition. Therefore, the two kinds of correspondences can be attributed to the same layer. 2. Starting from the Tai side, tone 1 of Tai corresponds to tone 1 of Chinese under Y condition, but to tone 2 of Chinese under the Z condition. The two kinds of correspondences can be attributed to the same layer, too.

### 4. STRATIFICATION WITHOUT SOUND CONDITION

If one cannot find any sound condition for the above sound correspondences between Chinese and Tai, two kinds of interpretations, regular or irregular, are possible. One is that the three sets of correspondences between Chinese and Tai represented three groups A, B, C in the earlier time, then B and C in Chinese merged into tone 2, and A in Chinese changed into tone 1. While in Tai, A and B merged into tone 1, and C changed into tone 2:

	Middle Chinese	Group	Proto-Tai	
A→1	1	A	1	A,B→1
B,C→2	2	B	1	
	2	C	2	C→2

Table 9 The merger hypothesis

If so, all these correspondences are from the same layer. In other words, these sound correspondences result from internal merging, not from language contact between Chinese and Tai.

Another possibility is that these sound correspondences are from different layers. From Chinese side, two layers can be detected:

Layer	Middle Chinese	Group	Proto-Tai
F	1	A	1
	2	C	2
G	1	A	1
	2	B	1

Table 10 The layer hypothesis from Chinese side

At least, one of the layers is due to language contact between Chinese and Tai.

From the Tai side, two layers can also be generalized:

Layer	Middle Chinese	Group	Proto-Tai
H	1	A	1
	2	C	2
I	2	B	1
	2	C	2

Table 11 The layer hypothesis from Tai side

Similar to Chinese, at least one of the layers is caused by language contact between Chinese and Tai. Up to now, with such correspondences without sound condition, no linguistic method has been proposed to determine which interpretation of the above two is more reasonable..

### 5. KERNEL CONSISTENT CORRESPONDENCE

Correspondences in group A and B, but not Group C, are represented by kernel words, which belong to the Swadesh list of 200 basic words (cf. Chen 1996):

Meaning	Chinese	Sound classification					MC	PT	
three	三	阴平	心	谈	开	一	sam1	sam1	2 <sup>nd</sup>
big	宏	阳平	匣	耕	合	二	γwæŋ2	hlueŋ1	1 <sup>st</sup>
fat	肥	阳平	并	微	合	三	bjwəi2	bi2	?

Table 12 The nature of words with different sound correspondences

According to this characteristic, we can define a layer consistent with correspondence of kernel words, in brief, Kernel consistent. For example:

MC	PT	Groups	
1	1	A	Kernel consistent
2	1	B	Kernel consistent
2	2	C	?

Table 13 Kernel consistent correspondences or not

Therefore, group A and B above are defined as kernel consistent correspondence. We are not sure if the correspondence of group C is kernel consistent correspondence because we are not sure whether we can connect the word ‘fat’ to kernel word ‘grease’. The correspondence between Southern Mandarin and Tai mentioned earlier is not kernel consistent because we have not found kernel words in those correspondences.

Layer of the kernel consistent correspondents plays a role as the key stratum since the kernel word belongs to the core vocabulary of a language. Naturally, it will provide stronger evidence to clarify the historical relationship between two or more languages.

## NOTES

<sup>1</sup>. Abbreviations of Kam-Tai languages:

BY	Buyi, a NT language of Tai, in Guizhou Province , China
DD	Dai Dehong, a SW language of Tai, in Dehong, Yunnan Province, China
DR	Dong Rongjiang, a Kam language, in Rongjiang, Guizhou Province, China
DX	Dai Xishuangbanna, a SW language of Tai, in Xishuang Banna, Yunnan Province, China
ML	Mulao, a Kam language in Luocheng, Guangxi Province, China
MN	Maonan, a Sui dialect in Huangjiang, Guangxi Province, China
SS	Sui Sandu, a Sui language, in Sandu, Guizhou Province, China
ZL	Zhuang, a CT language of Tai, in Longzhou, Guangxi Province, China
ZW	Zhuang, a NT language of Tai, in Wuming, Guangxi Province, China

2. For MC, I use my own reconstruction. Please see Chen Baoya (2004) for final reconstruction. The initial reconstruction is:

		全清	次清	全浊	全清	全浊	次浊
唇音		帮	滂	并			明
		p	p'	b			m
舌音	舌头	端	透	定			泥
		t	t'	d			n
	舌上	知	彻	澄			娘
		t̪	t̪'	d̪			n̪
齿音	齿头	精	清	从	心	邪	
		ts	ts'	dz	s	z	
	正齿二等	庄	初	崇	山		
		tʃ	tʃ'	dʒ	ʃ		

	正齒三等	章	昌	船	书	禅	
		tç	tç'	dz	ç	z	
牙音		见	溪	群	.	.	疑
		k	k'	g	.	.	ㄩ
喉音		影	.	.	晓	匣	喻
		Ø	.	.	x	v	j
半舌		.	.	.	.	.	来
		.	.	.	.	.	l
		.	.	.	.	.	
半齿		.	.	.	.	.	日
		.	.	.	.	.	nz

We will explain the reason of reconstruction on another paper. Other scholar's reconstruction will not change our result. For comparison, Old Chinese tone categories are expressed by single numbers:

阴平	阳平	阴上	阳上	阴去	阳去	阴入	阳入
1	2	3	4	5	6	7	8

<sup>3</sup> Proto-Tai is according to Fang-kui Li (1977). The correspondences between Li's tone numbers and our numbers are:

Li	A1	A2	C1	C2	B1	B2	D1	D2
Chen	1	2	3	4	5	6	7	8

For the reason that we compare Proto-Tai with Middle Chinese instead of Old Chinese, please see Chen (2004).

## REFERENCES

- CHEN, Baoya 陳保亞. 1996. Lun yuyanjiechu yu yuyanlianmeng 論語言接觸與語言聯盟[On language Contact and Language Alliance]. Beijing 北京: Yuwen chubanshe 語文出版社.

- CHEN, Baoya 陳保亞. 2004. Lun qieyun yunmu yizhigouni 論切韻韻母一致構擬 [The consistent reconstruction of finals for Qieyun]. in Shifeng 石鋒 and Shen zhongwei 沈鐘偉 (eds.) Lezaiqizhong – Wang shiyuan jiaoshou qishi huadan qingzhu wenji. Tianjin 天津: Nankaidaxue chubanshe 南開大學出版社.
- LI, Fang-kuei. 1977. A Handbook of Comparative Tai. Honolulu: The University Press of Hawaii.

### 语音对应的分层

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**提要:** 本文讨论了语音对应分层的种种困难, 原则上讲, 针对没有语音条件限制的一对多语音对应, 可以有多种解释, 而且我们常常难以断定其源自于内部演变还是语言接触。本文提出涉及核心语素的语音对应是语言中的关键层次, 可以用来判定语源之间的关系。

**关键词:** 分层 语音对应 核心语素