

THE PHONEMIC SYSTEM OF THE YI MIAO DIALECT

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In the mountainous region of southwestern China, extending from Szechuan to Annam, and from Hunan to Yunnan, are to be found many aboriginal tribes who speak various dialects of the Miao-Yao group. The division into Miao and Yao is based on linguistic observation; and definite phonological correspondence have been established between these two sub-groups.¹ The Miao dialects are spoken by people under various Chinese tribal names in the western part of Hunan, in a large part of Kweichow, in northern Kwangsi, and in southern Szechuan; they are also to be found here and there in Yunnan, northern Annam, and northern Thailand. This sub-group is characterized by the absence of the final consonants -m, -n, -ŋ, -p, -t, -k. The Yao dialects, like the Miao, are spoken by people under various tribal names in the northwestern Kwangtung, and they are also scattered here and there among the various regions of Kwangsi, and the northern parts of Annam and Thailand. This sub-group of dialects has the final consonants mentioned above. Under the Miao sub-group, the Hei Miao dialects, spoken in the southeastern part of Kweichow, have no consonantal clusters at the beginning of syllables; the dialect discussed in this paper is a good representative of the more complicated Miao dialects. It was investigated by the writer in 1940 in Kweichow under the auspices of the Academia Sinica, and the work was done under the guidance of Prof. Fang-kuei Li. The description is based on the speech of Lao Ho Kung (老何公), an aged native of Ke-Cheng Chai (格正寨), in Kwang-Shun District (廣順縣) in the province of Kweichow. When the writer met him in a Chung-Chia (仲家, a tribal name of Thai speakers) family at Yüan-Yang Chai (遠羊寨) in Hui-Shui District (惠水縣), a

1. cf. The writer's two articles on the tonal system of the Miao-Yao languages: an extensive treatment in Chinese in the *Bulletin of the Institute of History and Philology, Academia Sinica*, volume 16, pp. 93-110; and a brief summary in English in *Language*, volume 29, number 3, pp. 374-8.

neighboring district of Kwang-Shun, Lao Ho Kung had been cowherd in this Chung-Chia family for several years. Thanks to his master, Mr. Mao-Wei Yang's (楊茂薇) help, and the informant's patience, I studied this dialect for approximately forty days. A large body of material was obtained. Unfortunately, the informant dictated his stories in a manner too slow and too loose for me to get an impression of the patterns of intonation and stress.

I. TONES

This dialect is a tonal language. Tones are the contrasting contours of pitch. There are eight tones, but there are only seven phonemic tones inasmuch as the first two tones are in complementary distribution. The following is a list of these seven phonemic tones with some examples:²

(1) 34, a lower rising tone, occurs only in the syllables with aspirated initials and [ʃ-] and [φ-]; 44, the second high level tone, occurs in the syllables with all other initials. These two tones are two alternants of one phoneme. The tones 34 and 44 are perfectly complimentary to each other. The tones 34, with aspirated initials, ʃ and φ (**but not?**) would be less likely in complementary distribution with either of the tones 2 (55), 4 (31) or 6 (22) which does not occur in the syllables with aspirated initials, ʃ, and φ, **and also?**. Furthermore, the tone category (1) (a combination of 34 and 44) would behave like the tones 3 (45) and 5 (33) which appear in the syllables with all initials. Here I indicate this phoneme with a subscript numeral ₁ after the syllable.

[ʃai ₁]	'new'	[ʔau ₁]	'water'
[lha ₁]	'large'	[pa ₁]	'three'
[nhu ₁]	'sun, day'	[no ₁]	'snake'
[Nqho ₁]	'dry'	[lai ₁]	'monkey'

(2) 55, the high level tone, is indicated by a subscript numeral ₂. It doesn't occur in the syllables with aspirated initials and [ʃ-], [φ-], and [ʔ-].

[po ₂]	'flower'	[t̚m ₂]	'door'
[mpza ₂]	'ear'	[lai ₂]	'paddy field'

2. Here I adopt Prof. Y. R. Chao's system to indicate the pitch types, such as 34, 44, 55, 31, 21, 33, and 22. The total range of the tone height is divided into five grades. 1 is the lowest grade, and 5 is the highest grade. 34 and 45 mean rising tones, the former being lower than the latter by one grade both in the beginning and in the end. 31 and 21 mean falling tones, the beginning of the former being higher by one degree than the latter, but the end being the same. 55, 44, 33, and 22 are four level tones with different heights. The phonetic notations in brackets are mainly based on the International Phonetic Alphabets with slight modifications, such as the ʔ for retroflexive t-, ñ- for palatalized n-. Phonemic transcriptions are between slanting bars.

(3) 45, a high rising tone, is indicated by a subscript numeral ₃. It occurs in the syllables with all initials.

[ʔa ₃]	'older sister'	[pu ₃]	'full'
[nha ₃]	'to hear'	[lu ₃]	'short'
[sa ₃]	'hot'	[ntso ₃]	'bread'

(4) 31, the mid falling tone, is indicated by a subscript numeral ₄. It doesn't occur in the syllables with aspirated initials and [ʃ-] [ɸ-] and [ʔ-].

[mpza ₄]	'fish'	[lau ₄]	'to come'
[tu ₄]	'fire'	[mau ₄]	'to go'
[ze ₄]	'wine'		

(5) 33, the mid level tone, is indicated by a subscript numeral ₅. It occurs in the syllables with all initials.

[ʔo ₅]	'to do'	[pu ₅]	'to sleep'
[lhe ₅]	'moon'	[tu ₅]	'six'
[mha ₅]	'night'	[za ₅]	'good'
[hu ₅]	'to drink'	[te ₅]	'wing'

(6) 22, the low level tone, is indicated by a subscript numeral ₆. It doesn't occur in the syllables with aspirated initials and [ʃ-], [ɸ-], and [ʔ-].

[to ₆]	'to die'	[mu ₆]	'eye'
[tsa ₆]	'seven'		

(7) 21, the low falling tone, is indicated by a subscript numeral ₇. It doesn't occur in the syllables with aspirated initials and [ʃ-], [ɸ-], and [ʔ-].

[pa ₇]	'to see'	[ji ₇]	'eight'
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II. INITIALS

The distribution of tones and initials reveals an interesting phenomenon, presumably a result of historical development; that is, the tones 2, 4, 6, 7 do not occur in the syllables with aspirated initials, nor with [ʃ-] a retroflexive, voiceless spirant, [ɸ-], a bilabial, voiceless spirant, or [ʔ-], a glottal stop.

with seven tones

p-	pj-	pʒ-	pl-
mp-	mpj-	mpʒ-	mpl-
m-	mj-	mʒ-	
w-			
t-	tj-		
nt-	ntj-		

with tones 1, 3, 5 only

ph-	pjh-	pʒh-	plh-
mph-	mpjh-	mpʒh-	
mh-	mjh-	mʒh-	
ɸ-			
th-			
nth			

n-	nh-
l-	lh-
t-	th-
nt-	nth-
z-	zh-
ts- ³	s-
nts-	ntsh-
tɕ- ³	tɕh-
ñtɕ-	ñtɕh-
j-	jh-
ñ-	ñh-
k- kw-	kh-
ŋk- ŋkw-	ŋkh-
ŋ-	
q- ql-	qh- qlh-
nq- nql-	nqh-
	h-
	ʔ-

Among the initials, the spirants [h], [z], [j], [l], and [w] are the more active members. In addition to being used as simple initials, they are sometimes immediately preceded by some other stop initials (ts- included) to form clusters. In fact, only the labial stop [p-] has a complete set of such combinations, and only the back lingual stop [k-] takes [-w-].

[p-] plain labial stop /p-/

[pj-] plain labial stop plus palatalized spirant /pj-/

[pɕ-] plain labial stop plus retroflexive spirant /pr-/

[pl-] plain labial stop plus lateral spirant /pl-/

[ph-] plain labial stop plus aspiration /ph-/

If this set of labial clusters is an applicable pattern for our discussion of the phonemic system, some sound types can be transcribed in a much simpler and more economical way. For example:

/tsj/	for	[tɕ-]	/tsjh-/	for	[tɕh-]
/nj-/	for	[ñ-]	/njh-/	for	[ñh-]
/tr-/	for	[t-]	/trh-/	for	[th-]
/kr-/	for	[q-]	/krh-/	for	[qh-]

3. [ts-], [tɕ-], etc. are considered as simple initials.

/krl-/ for [ql-] /krlh-/ for [qlh-]

The definition of /j/ after stops (ts- included) is palatalization. An exhaustive description of the phonetic features of /r/ is: when it is used as a simple initial or after the labial stop /p-/, it is a retroflexive spirant [ʒ]; when it is used after the front lingual stop /t-/, it is a retroflexion of the tongue tip; and when it is used after the back lingual stop /k-/, it is a retraction of the back of the tongue. These three features are in complementary distribution; and their common feature is the retraction of the tongue position. The combinations of nasals and spirants are not parallel to each other.

/m-/	/n-/	/ŋ-/
/mj-/	/nj-/	
/mr-/		

Aspiration is a distinctive feature throughout in all kinds of initials. We have many pairs of unaspirated and aspirated initials:

/p-/, /ph-/; /pj-/, /pjh-/; /pr-/, /prh-/; /pl-/, /plh-/; /m-/, /mh-/; /mj-/, /mjh-/; /mr-/, /mrh-/; /t-/, /th-/; /tj-/, ? ; /tr-/, /trh-/; /n-/, /nh-/; /nj-/, /njh-/; /ts-/, ? ; /tsj-/, /tsjh-/; /k-/, /kh-/; /kw-/, ? ; /kr-/, /krh-/; /krl-/, /krlh-/; /ŋ-/, ? ; /j-/, /jh-/; /r-/, /rh-/; /l-/, /lh-/; /w-/, ? . In our list we have five defective initials which have no aspirated counterparts: /tj-/, /ŋ-/, /ts-/, /kw-/, and /w-/. But, as we have mentioned above, there are two spirants [φ-] and [ʃ-] which should be treated as aspirated initials because of their behaviour in combination with tones. Here we have /w-/, but no /wh-/. I believe we can assign [φ-] as the aspirated counterpart of /w-/. [ʃ-] seems to be the counterpart of /ts-/; but [ʃ-] is a spirant, and /ts-/ is an affricate. Furthermore, [ʃ-] has at least three features: first, it combines with tones like aspirated initials; secondly, it shares the retroflexive feature which is now represented as /r/; and finally, it is a voiceless spirant. I tentatively assign it as an aspirated counterpart of the phoneme /ts-/ with /r-/ glide.

Pre-nasalization is a characteristics of this dialect. All initial stops (ts- included) can be preceded by a homoorganic nasal.

/mp-/	/mph-/	/mpj-/	/mpjh-/	/mpr-/	/mprh-/	/mpl-/
/nt-/	/nth-/	/ntj-/		/ntr-/	/ntrh-/	
/nts-/	/ntsh-/	/nts-ʃ-/	/nts-ʃh-/			
/ŋk-/	/ŋkh-/	/ŋkw-/		/ŋkr-/	/ŋkrh-/	/ŋkrl-/

III. FINALS

The structure of the remaining part of syllables is very simple. Further reduction of symbols might be possible, in as much as [-u], [-uŋ] and [-ai], [-au], [-auu] seem to be in complementary distribution. However, this kind of reduction will hardly be supported by phonemic principles.

The following is a chart indicating all the possible finals in this dialect. The first member of diphthongs is predominant.

	fornt	back
high	/-i/	/-u/
	/-u/, /-uŋ/	
mid	/-e/, /-eŋ/ ⁴	/-o/, /-oŋ/
low	/-ai/	/-ai/
	/-au/	/-au/
	/-auu/	/-auu/
	/-aŋ/	
	/-a/	

Examples:

- /-i/: /tsji₄/ 'market', /ʔi₁/ 'one', /ji₁/ 'tobacco', /ji₇/ 'eight'
 /-u/: /krhu₃/ 'to wrap', /ru₇/ 'barn', /ju₁/ 'young rice plant', /kru₁/ 'star'
 /-uŋ/: /njhuŋ₃/ 'intestines'
 /-u/: /tsju₇/ 'ten', /ku₅/ 'straw hat', /hu₅/ 'to drink', /khu₅/ 'to itch'
 /-e/: /kre₂/ 'garlic', /ŋkre₁/ 'tatch', /krle₁/ 'to cheat', /kwe₁/ 'melon'
 /-eŋ/: /ʔeŋ₁/ 'saddle', /krheŋ₃/ 'ginger'
 /-o/: /ʔo₅/ 'to do', /ho₁/ 'fog', /ko₃/ 'broth', /ŋkro₆/ 'diligent'
 /-oŋ/: /koŋ₁/ 'insects', /krloŋ₃/ 'eagle', /ŋkroŋ₄/ 'shuttle', /krloŋ₁/ 'ghost'
 /-ai/: /hai₅/ 'to dip out', /krlai₅/ 'bear (animal)', /krhai₁/ 'to bind, fasten'
 /-au/: /hau₃/ 'head', /ŋkrau₁/ 'pigeon', /rau₃/ 'to guard', /trau₅/ 'to laugh, smile'
 /-auu/ /krlau₅/ 'walnut', /ʔau₁/ 'water', /krau₁/ 'work', /trau₆/ 'chopsticks'
 /-aŋ/: /krlaŋ₁/ 'trough', /kraŋ₆/ 'neck', /rhaŋ₅/ 'sieve', /raŋ₂/ 'dragon'
 /-a/: /ʔa₃/ 'elder sister', /ka₅/ 'egg', /ka₃/ 'road', /krla₃/ 'dog'
 /-ai/: /ʔai₁/ 'bitter', /rhai₁/ 'high', /rai₅/ 'good', /njhai₁/ 'forehead'
 /-au/: /ʔau₅/ 'duck', /rhau₅/ 'to write', /rau₁/ 'vegetables', /khau₅/ 'shoes'
 /-auu/: /kau₂/ 'poor', /kau₁/ 'needle', /njau₁/ 'rice stalk'

4. The final /-eŋ/ [-ê] occurs mainly in Chinese loan words: /ʔeŋ₁/ 'saddle'.

IV. COMBINATIONS OF INITIALS AND FINALS

	-a	-aŋ	-ai	-au	-auw	-u	-uŋ	-ai	-au	-auw	-e	-eŋ	-i	-o	-oŋ	-u
?	—			—	—	—		—	—	—		—		—		—
h-			—	—		—								—		—
p-	—	—	—		—	—			—	—	—		—	—	—	—
mp-	—	—		—	—	—			—				—	—	—	
ph-	—	—	—	—		—	—				—		—	—	—	—
mph-														—	—	
m-	—		—	—	—		—	—	—	—			—	—	—	
mh-			—	—	—		—	—	—							
t-	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—
nt-	—	—		—	—	—		—	—	—	—		—	—	—	—
th-		—	—	—	—	—	—	—	—	—	—		—	—	—	—
nth-				—							—			—	—	
ts-		—	—	—	—	—		—	—	—	—		—	—	—	—
nts-		—	—	—	—		—		—				—	—	—	
ntsh-	—	—	—								—			—		
n-	—	—		—	—		—	—	—	—	—			—	—	
nh-				—	—		—			—	—			—	—	
k-	—	—	—	—	—	—	—	—	—	—				—	—	—
ŋk-				—	—				—	—				—	—	—
kh-			—	—	—	—			—	—				—		—
ŋkh-																—
ŋ-		—	—	—	—	—			—							
w-		—		—	—	—	—	—	—		—			—	—	—
wh-	—	—						—						—	—	
kw-		—	—					—			—			—		
ŋkw-								—								
j-		—	—	—	—	—	—	—	—	—	—		—	—	—	—
jh-		—		—												—
pj-	—			—			—	—	—							
mpj-			—	—				—	—	—						
pjh-			—	—				—			—					

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	-a	-aŋ	-ai	-au	-auw	-u	-uŋ	-ui	-ui	-uiw	-e	-eŋ	-i	-o	-oŋ	-u
mpjh-				—				—								
mj-				—				—			—	—				
mjh-								—			—					
tj-						—		—								
ntj-								—								
tsj-	—	—	—	—	—	—		—	—	—	—		—	—	—	—
nts-	—	—		—	—	—		—		—			—	—	—	—
tsjh-	—	—	—	—	—	—		—	—	—	—		—	—	—	—
nts-		—	—	—				—	—	—			—	—	—	—
nj-			—	—	—			—	—	—	—			—		
njh-					—		—	—		—						
r-	—	—	—	—	—	—		—	—	—	—		—	—	—	—
rh-		—		—	—	—		—	—	—	—			—	—	—
pr-	—	—		—	—	—		—	—	—	—		—	—		—
mpr-	—	—			—	—	—		—		—			—		
prh-				—										—		
mprh-				—												
mr-				—						—				—	—	
mrh-				—						—						
tr-	—	—		—	—	—			—	—	—		—	—	—	—
ntr-	—	—				—			—	—			—	—	—	
trh-		—	—	—		—				—				—		
ntrh-			—		—					—					—	—
tsrh-	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—
kr-	—	—	—	—	—	—				—	—		—	—	—	—

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	-a	-aŋ	-ai	-au	-auw	-u	-uŋ	-ai	-au	-auw	-e	-eŋ	-i	-o	-oŋ	-u
ŋkr-	—	—	—	—	—	—		—	—		—			—	—	
krh-			—		—	—					—	—		—	—	
ŋkrh-			—		—									—		
l-	—	—	—	—	—	—		—	—	—	—		—	—	—	—
lh-	—	—	—	—	—	—		—	—		—			—	—	—
pl-	—	—			—	—		—	—	—	—		—	—	—	
mpl-	—		—	—	—			—		—				—	—	—
plh-	—								—							—
mplh-	—															
krl-	—	—	—	—	—	—		—			—			—	—	—
ŋkrl-	—				—	—					—			—	—	
krlh-	—								—						—	