CHINESE, THAI, AND MIAO-YAO

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Introduction

Recent advances in descriptive and comparative studies of the Thai and Miao-Yao language-families have tentatively established some of the outlines of proto-Thai and proto-Miao-Yao. The tonal systems, and certain characteristics which I shall call series and features, now seem fairly certain. For the third principal language-family of the Far East, Chinese, we already possess a reconstructed Ancient Chinese which is sufficiently ancient and broadly based to serve as the ancestral language for the modern dialects (excepting the Min dialects). The modern dialects of these three language-families are similar in many ways ; the time has now come when we can compare some aspects of the ancestral languages of each family.

The aim of this paper is to demonstrate the unity of the tonal systems of Ancient Chinese, proto-Thai, and proto-Miao-Yao, and to suggest a method by which the ancestral languages may be characterized by comparison of the maximal number of distinctive features of archiphonemes.

1. Chinese

The tonal system of A(ncient) C(hinese), as it appears in the dictionaries, may be symbolized as follows :

$$1 \quad 2 \quad 3 \parallel 4$$

Open syllables have a three-tone system ; closed syllables have four tones, the first three ending in nasals, the fourth in the corresponding stop consonants. Put another way, syllables with continuant finals have a three-tone system, those with final stops have no tonal distinctions.

Although the dictionaries of AC show only four tones, it is necessary to subdivide each of the tones, to account for the tonal reflexes in the later dialects. This subdivision correlates with the AC initials. The AC system of initials may be described in terms of archiphonemes, series, and features. Taking the archiphonemes *t (' dental stop ') and *l (' lateral ') as examples of maximal and minimal differentiation, we find the following possible occurrences :

Archiphoneme	+	Series	+	Feature	=	Initial
*t		will be either clear, which may be		unaspirated		t
				or aspirated		th
		or muddy		(always voiced)		th̃
*l		can only be muddy				l

(' Clear ' and ' muddy ' are translations of Chinese phonological terms, which are useful as they do not prejudice the manner of articulation. The muddy series

includes the nasals and laterals, and lacks any aspiration difference in the st
and affricates.)

In the later dialects, although the clear-muddy dichotomy reveals itself so
times as a difference in manner of articulation of initial consonants, the m
noticeable feature is that in almost all dialects it has resulted in different to
reflexes. This fact suggests that there was a difference in pitch in AC between
two series, although the tonal contours must have been alike. The picture
probably not unlike modern Cantonese, where the two series of initials are cle
separated by pitch, with approximately the same contours in both the clear
muddy series :

Tone Series	1	2	3	4
Clear	`ta:m ' carry ' `tha:m ' greedy '	'ta:m ' gall ' 'tha:m ' blanket '	⁻ta:m ' load ' ⁻tha:m ' grope '	⁻ta:p ' reply ' ⁻tha:p ' pagod
Muddy	ˎtha:m ' pool '	ˌtha:m ' tasteless '	ˍta:m ' mouthful '	ˍta:p ' tread '

(Muddy-series plosives have become aspirated in two tones in Canton
unaspirated in the other two.)

To sum up, AC had a tone-system 1 2 3 ‖ 4, in which each tone occur
in two pitches, correlating with the system of initial series and features, which
be symbolized in maximal and minimal differentiation $\frac{t\ th}{t}, \frac{-}{l}$.

2. Thai

The tonal system of Common Thai has been reconstructed as a system of f
tones with three types of initials ; it may be clearly seen in the Lungchow Chu
dialect :

Tone Series	1	2	3	4
Unasp.	⁻dai ' good ' ⁻tim ' full '	⁻da ' scold ' ⁻ta:ŋ ' window '	ˌdai ' get ' ˌtai ' torch '	⁻duk ' bone ' ⁻tap ' liver '
Asp.	⁻t'əŋ ' arrive ' ⁻nau ' rat '	⁻t'u ' bean ' ⁻no ' sprout '	ˌt'ui ' bowl ' ˌna ' face '	⁻t'uk ' correct ⁻nak ' heavy '
Voiced?	ˎta ' to smear ' ˎna ' field '	ˍto:n ' section ' ˍnaŋ ' sit '	ˎto:ŋ? ' belly ' ˎnam? ' water '	ˎtək ' leech ' ˎnuk ' bird '

The cognates in Siamese, Lao, and Tai of the words with nasal initials in
' Aspirated ' series are written with prefixed h-, and were probably origin
unvoiced nasals (and laterals)—only thus is their tonal behaviour explai
That they were different from the other nasals is proved by the Sui language, w

(written) Siamese $m = m$, but $hm = \dot{m}$, and Siamese $l = l$, but $hl = kh$. The so-called 'voiced' stops (and affricates) appear as aspirated stops in other Thai dialects (such as Siamese, Laoʻ, where they are written with the letters for (Sanskrit) voiced stops. They may be symbolized in our transcription for Common Thai by *t̂h*, etc.

In the Lungchow dialect, the syllables with unaspirated and 'aspirated' initials share the same series of tones, while the 'voiced' series appear with a different set. Although in some Thai dialects there is a tendency for the unaspirated and aspirated to differ in tonal realization, the Lungchow material suggests that, just as in the case of Chinese, a 'clear-muddy' dichotomy may be discerned. If that is so, then we may say that in Common Thai we find the following pattern of series and features for the initials (again using the Chinese terms for the series) :

Archiphoneme	+	Series	+	Feature	=	Initial
t		may be clear, which may be		glottalized		ʔt
				or unaspirated		t
				or aspirated		th
		or muddy				t̂h
n		may be clear (and aspirated)				hn
		or muddy				n

A problem arises, however, with the identification of tones. For Ancient Chinese the ancient dictionaries and rhymed literature show unambiguously that although there may have been differences in pitch dependent upon the initials, there was a single four-tone system, each tone having a discrete tone-contour. In the Thai languages, lacking ancient evidence, how can tones 1 2 3 ‖ 4 in the clear series be definitely identified with tones 1 2 3 ‖ 4 in the muddy series, in that order ?

There are at least two indications that suggest that they may be so identified. First is that in the Siamese and Tai Lu writing-systems, an identical method of tone-marking by numbers is employed ; as the clear and muddy series differ markedly in realization in both languages, this unanimity in the numbering system can only point to an earlier stage when the chief difference (apart from voicing of the initial) between the series was pitch, and not tone-contour. The second and surer evidence, however, comes from the tonal pattern of Thai words with Chinese cognates. Generally speaking, Chinese cognates with any one of the four Chinese tones will have the same tone in Thai, irrespective of 'clear' or 'muddy'. (Just why there seems to be no correlation in the clear and muddy series between the two languages is not known.) The following examples will make this clear : 'C(lear)' and 'M(uddy)' are added after the examples for clarity :

Tone 1	Cantonese	Siamese
soup	`kaŋ C1	⁻kɛːŋ C1
granary	`chɔːŋ C1	/chaːŋ C1
doctor	ˌmou M1	/mɔː C1 (< hm-)
tea	ˌchaː M1	⁻chaː M1 (<ch-)

Tone 2 (Thai)	Tone 3 (Chinese)	
old	ˍkau M3	ˍkau C2
charcoal	⁻thaːn C3	ˍthaːn C2
kite	ˍjiːw M3	ˍjiw C2 (< hj-)
artisan	ˍcœːŋ M3	ˏchaːŋ M2 (< ch-)

Tone 3 (Thai)	Tone 2 (Chinese)	
nine	'kau C2	ˏkau C3
to use	'sai C2	ˆchai M3 (< ch-)
elephant	ˍcœːŋ M3 (< M2)	ˆchaːŋ M3 (< ch-)
horse	ˌmaː M2	ˆmaː M3

(The seeming exception in the word for ' elephant ' is due to a shift in Cantone
AC syllables with tone 2, muddy series and stop or affricate initial have bec
tone 3 in Cantonese.)

Since Chinese tone 1 corresponds to both clear and muddy tone 1 in T
it is reasonable to assume that these last are to be assigned to one tonal cate
in Thai also. The same holds for tones 2 and 3 (corresponding to Thai t
3 and 2).

Thai then agrees with Chinese in having the tone system 1 2 3 ‖ 4, with
series of initials, but a more complex set of features, with maximal and min
differentiation $\dfrac{^{ʔ}t\ \ t\ \ th}{t}$, $\dfrac{hn}{n}$.

3. *Miao-Yao*

Comparative Miao-Yao studies have lagged behind studies in Common
and AC, but the common tonal system has been known for some time.
is an eight-tone system, divided by initial into two groups of four tones.
Yao dialects have a final occlusive in one tone of each group, so we have

$$\frac{1\ \ 3\ \ 5\ \ |\ 7}{2\ \ 4\ \ 6\ \ |\ 8}$$

Highland Yao, which possesses all eight tones, may serve as an example

1. ⁻duŋ ' deaf '   3. ˆbuŋ ' bone '   5. 'khuŋ ' only '   7. 'kyuq ' six '
2. ˏluŋ ' sky '   4. ˌtuŋ ' pig '   6. ˏbyuŋ ' rain '   8. ˍtsuq ' must '

We may use the terms 'clear' and 'muddy' again to designate the two series. In different dialects the nature of the distinction between the two series varies widely ; but, although the number of archiphonemes of Common Miao-Yao cannot yet be determined, a tentative picture may be drawn of the features which must be distinguished to cover the reflexes in the various dialects. Correlated with series, these are :

Archiphoneme	+	Series	+	Feature	=	Initial
t		may be clear, which may be		unaspirated		t
				or aspirated		th
				or prenasalized unasp.		nt
				or prenasalized asp.		nth
		or muddy, which may be		simple stop		tĥ
				or prenasalized		ntĥ
n		may be clear, which may be		pre-glottalized		ʔn
				or aspirated		hn
		or muddy				n

Although the phonetic notes on the features are purely hypothetical, the only definite point being the number of categories and their correlation with the two series, nevertheless the Lungli Shuiwei dialect possesses all these distinctions, and may be compared with White Miao and Highland Yao. (Initials with various archiphonemes had to be used.)

Series	Initial	Lungli Shuiwei	White Miao	Yao	Tone	
Clear	t	⁻pi	'tʃe	^pyaːw	3 (C2)	' house '
	th	—	⁻khe	⁻khɔy	1 (C1)	' open '
	nt	'mᵊpi	⁻mpe	'buə	5 (C3)	' name '
	nth	⁻nᵊtsʻeŋ	'ntʃhaŋ	^dzyam	3 (C2)	' blood '
Muddy	t	⁻đᵈo	ˎtəu	ˎtəw	4 (M2)	' fire '
	nt	⁻mpi	ˎntʃe	ˎbyaːw	4 (M2)	' fish '
Clear	n	ˎʔmoŋ	⁻mau	⁻mun	1 (C1)	' painful '
	hn	ˏm̥oŋ	⁻hmau	'hmwaːŋ	5 (C3)	' night '
Muddy	n	'na	ˎno	ˎnaːy	6 (M3)	' ask '

Although there is little internal evidence to indicate that tones 1 3 5 ‖ 7 are to be equated with tones 2 4 6 ‖ 8 (in that order), Chinese cognates suggest that it is possible to reduce these eight tones to an overall 1 2 3 ‖ 4, as follows (again the examples are from Highland Yao) :

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Tone	Cant.	Yao		Cant.	Yao
C1 'to wrap'	`paːu	⁻pew	'soup'	`thoːŋ	⁻thoŋ
C2 'full (eating)'	'paːu	^pew	'lock'	'soː	^fo
C3 'surname'	⁻seŋ	'fiŋ	'teach'	⁻kaːu	'gyaːw
C4 'scratch'	⁻waːt	'wet	'hundred'	⁻paːk	⁻pɛq
M1 'ride'	ˌkhei	\ke	'sugar'	ˌthoːŋ	\toŋ
M2 'evening'	ˈmaːn	ˌmwən	'net'	ˈmoːŋ	ˌmuŋ
M3 'illness'	ˍpɛːŋ	ˌpɛŋ	'chopstick'	ˍcyː	ˌtsəw
M4 'thin'	ˍpoːk	ˍpiəq	'ripe'	ˍsok	ˍtsuəq

If this holds true, then pairs of words in Highland Yao such as ˌtay 'to d
and 'tay 'to kill' (White Miao ˌtuə and ⁻tuə respectively) may be said to ha
the same tone, and to differ only in the series of the initials.

We may therefore tentatively posit for Common Miao-Yao the same to
system 1 2 3 ‖ 4 and the same two series that we have for Chinese and Thai, w
the maximal and minimal system of features $\dfrac{t\ th\ nt\ nth}{t\ nt}, \dfrac{n\ hn}{n}$.

CONCLUSION

Present evidence shows that not only general features of monosyllabic
tonality, and simple consonantal systems are common to the Ancient Chine
Common Thai, and Common Miao-Yao, but also specific characteristics, such
a tonal system 1 2 3 ‖ 4, and a division of initials into two series, one of wh
shows an aspiration difference, the other having some connection with voic
and lacking the aspiration difference. The three language-families differ, howev
in the number of features within each series, Chinese having the fewest, Miao-Y
being the most complex.

Although the aim of this paper has merely been to suggest a simple meth
for characterizing differences and similarities in the initial systems of th
languages, some historical explanations for this remarkable unanimity sugg
themselves. It seems unlikely that the possession in common of so many pho
logical features by the three contiguous language-families could be the result
coincidence. There seems to be nothing especially 'basic' or determined ab
such a system—indeed, few later dialects preserve it. Rather it suggests that
ancestors of these three families enjoyed a long period of contact and mut
influence, probably at the same time that the extensive borrowings of Chin
vocabulary were made in Thai and Miao-Yao. Ancient Chinese may be da
to the period fourth to seventh centuries A.D. Earlier forms of Chinese (so
as they are known) do not seem to agree so well with the Thai and Miao-Y
systems. We may therefore posit this period of contact to have been from ab
the fourth century to the break-up of the Common Thai and Common Miao-Y
languages (presumably prior to the Mongol invasions).

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