

THE TONES OF FOUR TAI DIALECTS

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1. The four dialects discussed in this paper are all spoken in Thailand¹ and each of them may be considered representative of one of the four major dialect areas of that country, namely Central, Southern, Northern, and Northeastern. The standard language spoken in the central area is known simply as "Thai" in Thailand, but for comparative purposes it is more convenient to refer to this dialect by the more distinctive name "Siamese." It is typically the dialect of Bangkok, the present capital of the country. For each of the other three major dialect areas, the subdialect of one of the principal cities of the area has been chosen for description and comparison. The other three dialects are accordingly referred to as follows: Nakhonsithammarat (southern area), Chiangmai (northern area), and Roi-et (northeastern area).²

2.1 Following the system used by Li³ and others we can say that Proto-Tai had four tone categories which may be designated by the letters A, B, C, and D. Tone categories A, B, and C are found only with syllables having a smooth final (i. e., long vowel, semivowel, or nasal), while tone category D is found only with syllables having a stopped final (including the glottal stop). There is still another important distinction between tone categories A-B-C, on the one hand, and D, on the other. In tone category D many dialects show a different treatment for short as opposed to long vowels at some point in the system, whereas in categories A-B-C, vowel length is tonally nonsignificant.

1. Much of the dialect material that forms the basis of this paper was collected in Thailand during the summer of 1949 under a travel grant from the Wenner-Gren Foundation for Anthropological Research to whom grateful acknowledgement is made. Speakers of these dialects have also been interviewed in Berkeley with assistance from the Department of Oriental Languages (1950-51, 1952-53) and from the Department of Linguistics (1955-56).

2. The dialect of Roi-et and of other parts of northeastern Thailand is very close to Lao. Already described dialects of Lao, however, show six tones. The dialect of Roi-et differs from these in having seven tones.

3. See Fang-Kuei Li, Consonant Clusters in Tai, *Language*, vol. 30 (1954), pp. 368-379.

2.2 Within each of the four tone categories the actual tonal development in each dialect is conditioned by the nature (historically speaking) of initial consonant.¹ Proto-Tai is assumed to have had two major consonant classes, voiceless and voiced, numbered 1 and 2, respectively, by Li.² Operating for the moment only with tone categories A-B-C (having smooth finals),³ we can see that on the basis of this two-way system the maximal possible tonal differentiation would be six, i. e., three tone categories multiplied by two consonant classes. Many present-day Tai dialects apparently fit this predictable pattern perfectly.⁴ Other dialects, however, show tonal developments which cannot be described in quite such simple terms.

2.3 Siamese (Thai) is the only Tai language which clearly marks all the tones in its writing system.⁵ But this writing system is notable in that it distinguishes not two, but three initial consonant classes.⁶ Furthermore, two of the present-day dialects spoken in Thailand, namely Nakhonsithammarat and Roi-et, have seven actual tones, i. e. one more tone than would be maximally possible in terms of the system described in the preceding paragraph.

An attempt to explain this anomaly is in order. At some stage in the development of the Tai tonal system, class 1 consonants were split into two groups. The three classes of consonant recognized in the Siamese writing system are conventionally known as high (H), middle (M), and low (L) consonants. The first two of these result from the split of class 1 consonants into two groups which may be marked 1H and 1M. We now have a three-way system of initial consonants, and in terms of this new system the maximal possible tonal differentiation would be nine, i. e. three tone categories multiplied by three (rather than the original two) consonant classes. The development of seven actual tones in Nakhonsithammarat and Roi-et must and can be described in terms of the new system. The tones of Siamese (as might be expected from their writing system) must also be described in

1. Even in the case of initial consonant clusters it is the first consonant of the cluster which conditions the tone.

2. *Op. cit.*, pp. 369-370.

3. In each known dialect tones which have developed within the D category can always be phonemicized with certain tones which have developed within the A-B-C categories. In other words, no additional tones are developed within the D category.

4. Among the dialects charted by Li (*op. cit.*, p. 370), those which fit this pattern are Lao, Wu-ming, and Lung-chow.

5. Mary R. Haas, *The Thai System of Writing*, American Council of Learned Societies, Washington, D. C., 1956.

6. *Ibid.*, pp. 10-13.

terms of this new system (but only in tone category A), even though the dialect has only five actual tones.

Nor is this the only split in consonant classes for which we have evidence. Chiangmai, as will be shown later, has further split 1M into subgroups: 1M•1 and 1M•2.

2.4 The different ways in which each Tai dialect has developed its actual tonal system out of varying combinations of tone categories, on the one hand, and consonant classes and subclasses, on the other hand, is one of the most fascinating features of Tai dialectology, and it is the purpose of this paper to show something of how this may have been accomplished in the four dialects under consideration.

3.1 In the series of charts presented below the actual tones of the given dialect are shown on the left. An x in the chart marks the point at which the particular combination of tone category and consonant class results in the given actual tone. The first split in initial consonant classes, symbolized by 1H and 1M, and the second split, symbolized by 1M•1 and 1M•2, are shown in the charts only in those instances where the split is significant.

Chart 1. Chiangmai.

	A				B		C		D(S)		D(L)	
	1H	1M•1	1M•2	2	1	2	1	2	1	2	1	2
Rising	x	x							x			
Mid			x	x								
Low					x						x	
Falling						x						x
Higher Mid							x					
High								x		x		

Chart 2. Siamese.

	A			B		C		D(S)		D(L)	
	1H	1M	2	1	2	1	2	1	2	1	2
Rising	x										
Mid		x	x								
Low				x				x		x	
Falling					x	x					x
High							x		x		

Chart 3. Nakhonsithammarat.

	A			B			C			D(S)			D(L)		
	1H	1M	2	1H	1M	2	1H	1M	2	1H	1M	2	1H	1M	2
High falling	x			x											
Mid gliding		x			x										
Mid falling			x												
Rising						x					x				x
High							x			x			x		
Mid								x						x	
Low									x			x			

Chart 4. Roi-et.

	A			B			C			D(S)		D(L)	
	1H	1M	2	1H	1M	2	1H	1M	2	1	2	1	2
Rising	x									x			
Mid		x											
High falling			x										
High				x	x								
Higher mid						x					x		
Low							x					x	
Mid falling								x	x				x

3.2 As can be seen from a study of the charts given above, the Proto-Tai dual system of tone categories and consonant classes is reflected in all of the dialects. But the actual pitch or pitch contour used at the intersection points varies greatly from dialect to dialect and is therefore, historically speaking, a matter of relatively minor importance.

The manner in which the intersection points are kept apart or combined also shows some interesting variation in the several dialects. This is discussed in the immediately following section. The development of tone categories A, B, and C is taken up first; the development of tone category D is treated separately.

4.1 The tonal development found in the Chiangmai dialect comes very close to fitting the predictable pattern which would arise from the combination

of Proto-Tai tone categories A-B-C with consonant classes 1 and 2. In tone category A, however, Chiangmai appears to reflect a double bifurcation of consonant class 1. First of all, we can assume a split between H (high) and M (middle) consonants.¹ Then we observe that there has been an additional bifurcation of the M consonants into M.1 and M.2. M.1 consonants are voiceless unaspirated stops; these represent Proto-Tai voiceless unaspirated stops.² M.2 consonants, on the other hand, are the glottal stop plus the voiced unaspirated stops; these represent the glottal stop plus the pre-glottalized series of consonants which has been postulated by Li³ for Proto-Tai.

The six actual Chiangmai tones are thus the result of the following combinations:

- (1) A-1H and A-1M.1
- (2) A-1M.2 and A-2
- (3) B-1
- (4) B-2
- (5) C-1
- (6) C-2

4.2 The tonal system of the Siamese dialect is extremely close to that of the Chiangmai dialect. Indeed the Siamese system appears to be (whether it actually is or not) a further reduction of a Chiangmai-like system.⁴ The fifth tone of Chiangmai (the higher mid tone) has been lost and Siamese C-1 is moved up one step to fall together with B-2; both then have as their actual tone the falling tone. Here we have an example of a vertical coalescence in tonal development.

In tone category A the distinction between 1M.1 and 1M.2 (found in Chiangmai) is lacking Siamese. But Siamese, instead of treating A-1M.2 like A-1M.1 (and hence like A-1H) has, on the contrary, allowed A-1M.1 to fall together with A-1M.2 and hence with A-2. Indeed this fact is the only justification to be found in modern spoken Siamese for a three-way system of consonant classes such as is recognized in the writing system. In tone categories B, C, and D a two-way system would be sufficient.

1. See section 2. 3.

2. Fang-Kuei Li, *The Hypothesis of a Pre-Glottalized Series of Consonants in Primitive Tai*, *Bull. Inst. of Hist. and Phil.* 9. 177-187 (1947).

3. *Ibid.* The Chiangmai dialect (not among those cited as evidence by Li) thus furnishes additional evidence for his hypothesis.

4. In most other respects Siamese and Nakhonsithammarat are much closer together than Siamese and Chiangmai.

The five actual tones of Siamese are thus the result of the following combinations:

- (1) A-1H
- (2) A-1M and A-2
- (3) B-1
- (4) B-2 and C-1
- (5) C-2

4.3 Although both the Nakhonsithammarat and the Roi-et dialects have seven actual tones, the line of development has been quite different in the two dialects.

The dialect of Nakhonsithammarat has the maximum differentiation in terms of a three-way system of consonant classes. In other words, the actual tone occurring with class 1H, class 1M, and class 2 consonants is always different in the three tone categories A, B, and C (and also, for that matter, in D). The reduction in Nakhonsithammarat from a theoretically possible nine-tone system to the actual seven-tone system has been accomplished by combinations across tone categories rather than by combinations involving consonant classes. (In other words, the actual tone of A-1H is the same as that of B-1H and likewise for A-1M and B-1M.) So far as my own experience with Tai dialects goes, this is an unusual line of development.

The seven tones of the Nakhonsithammarat dialect may thus be summarized as follows:

- (1) A-1H and B-1H
- (2) A-1M and B-1M
- (3) A-2
- (4) B-2
- (5) C-1H
- (6) C-1M
- (7) C-2

4.4 The seven-tone system of the Roi-et dialect reflects a distinction between 1H and 1M in tone categories A and C, but not in B. It resembles the Nakhonsithammarat dialect in its three-way distinction in tone category A, but it is quite unlike the Nakhonsithammarat dialect in that it never allows any coalescence in actual tone across tone categories. Coalescences in Roi-et result from the coalescence of treatment of consonant classes only.

The summary of the seven tones of the Roi-et dialect is as follows:

- (1) A-1H
- (2) A-1M
- (3) A-2
- (4) B-1 (i.e. B-1H and B-1M)
- (5) B-2
- (6) C-1H
- (7) C-2 and C-1M

4.5 In all known Tai dialects, the actual tones developed in tone category D always coincide with certain actual tones developed in tone categories A, B, and C. In other words, no additional tonemes are ever encompassed in tone category D. Most Tai dialects also show a difference in their treatment of short as opposed to long vowels within tone category D only. All four of the dialects discussed in this paper show this difference.

In three of the dialects under study (Chiangmai, Siamese, and Roi-et) only two consonant classes are distinguished in tone category D, namely 1 and 2. In the Nakhonsithammarat dialect, however, three consonant classes, namely 1H, 1M and 2 are distinguished in tone category D. Unusual as this is, it is entirely consistent with the three-way consonant class distinction which the Nakhonsithammarat dialect maintains in tone categories A, B, and C.

APPENDIX

Examples of words in each of the four dialects described in terms of tone category, consonant class, and actual tone¹ are given below.

Chiangmai

Tone category and consonant class	Example	Actual tone	Gloss
A-1H	mǎa	Rising	dog
A-1M.1	kǐn	Rising	to eat
A-1M.2	bin	Mid	to fly
A-2	maa	Mid	to come
B-1(H)	sii	Low	four
(B-1M)	kàj	Low	chicken
B-2	pōo	Falling	father
C-1(H)	hǎa	Higher mid	five
(C-1M)	kǎw	Higher mid	nine
C-2	máa	High	horse
D. S-1(H)	sib	Rising	ten
(D. S-1M)	cěd	Rising	seven
D. S-2	nóg	High	bird
D. L-1(H)	siig	Low	to tear
(D. L-1M)	pèed	Low	eight
D. L-2	lúug	Falling	child

Siamese

Tone category and consonant class	Example	Actual tone	Gloss
A-1H	mǎa	Rising	dog
A-1M(.1)	kin	Mid	to eat

1. The actual tones are marked by tonal diacritics only in the Chiangmai and Siamese dialects. In both Chiangmai and Siamese the following symbols are used: rising (ˆ), mid (no mark), low (˘), falling (˙), and high (ˊ). The extra tone in Chiangmai is the higher mid (ˊ).

The values of the consonant and vowel symbols used in Siamese are described in Haas, *The Thai System of Writing*, pp. viii-xi. These symbols have approximately the same values in the other dialects quoted here. The phoneme /r/ occurs only in Siamese and Nakhonsithammarat; the other two dialects have /h/ in its place. The phoneme /ŋ/ does not occur in syllable-initial position in Nakhonsithammarat; the phoneme /h/ is used in its place (but /ŋ/ is retained in final position). Other sound correspondences also occur, but the details of these (and also of distributional differences) are reserved for discussion in a later paper.

(A-1M.2)	bin	Mid	to fly
A-2	maa	Mid	to come
B-1(H)	sii	Low	four
(B-1M)	kàj	Low	chicken
B-2	phôo	Falling	father
C-1(H)	hâa	Falling	five
(C-1M)	kâw	Falling	nine
C-2	máa	High	horse
D. S-1(H)	sib	Low	ten
(D. S-1M)	cèd	Low	seven
D. S-2	nóg	High	bird
D. L-1(H)	chiig	Low	to tear
(D. L-1M)	pèed	Low	eight
D. L-2	lúug	Falling	child

Nakhonsithammarat

Tone category and consonant class	Example	Actual tone	Gloss
A-1H	maa	High falling	dog
A-1M	kin	Mid gliding	to eat
A-2	maa	Mid falling	to come
B-1H	sii	High falling	four
B-1M	kaj	Mid gliding	chicken
B-2	phoo	Rising	father
C-1H	haa	High	five
C-1M	kaaw	Mid	nine
C-2	maa	Low	horse
D. S-1H	sib	High	ten
D. S-1M	cèd	Rising	seven
D. S-2	nog	Low	bird
D. L-1H	chiig	High	to tear
D. L-1M	pèed	Mid	eight
D. L-2	luug	Rising	child

Roi-et

Tone category and consonant class	Example	Actual tone	Gloss
A-1H	maa	Rising	dog
A-1M	kin	Mid	to eat
A-2	maa	High falling	to come
B-H	sii	High	four
B-1M	kaj	High	chicken
B-2	phoo	Higher mid	father
C-1H	haa	Low	five
C-1M	kaw	Mid falling	nine
C-2	maa	Mid falling	horse
D. S-1(H)	sib	Rising	ten
(D. S-1M)	ced	Rising	seven
D. S-2	nog	Higher mid	bird
D. L-1(H)	siig	Low	to tear
(D. L-1M)	peed	Low	eight
D. L-2	luug	Mid falling	child