A CHECKLIST FOR DETERMINING TONES IN TAI DIALECTS

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Languages of the Tai family in Southeast Asia, though they show great differences in phonology and lexicon from one dialect to another across their extensive domain, from Assam in the west to the island of Hainan in the east, and from peninsular Thailand in the south to the Chinese provinces of Yunnan, Kweichow, and Kwangsi in the north, all agree in the basic framework of their phonological structure. In all known languages and dialects of the family, speech consists of a succession of unambiguously marked syllables, and each of these syllables exhibits a pattern of contrasts in various positions: initial consonant, or consonant cluster with (in diminishing order of frequency of occurrence in the various dialects) w, y, l, r; nuclear vowel (and in many dialects diphthongs consisting of high vowel i, i, and u followed by a centering offglide); and final consonant (or zero in this position). Each syllable also has a distinctive tone.

The system of tonal contrasts in any particular language or dialect is unique, both as to the phonetics of the tones and as to the number of permitted tonal contrasts, as well as the list of morphemes on which particular tones occur. Indeed, the most useful criterion for dialect boundaries within the Tai-speaking area is perhaps that of tonal systems; in travelling from place to place (or as is more often the case nowadays, in working with informants from various localities), one may consider that he has crossed a dialect boundary if he finds an increase or decrease in the number of tones in the system, or if he finds that a list of morphemes which in the previously studied dialect agreed in tone is now distributed among two or more different tones, or conversely, that a previously noted tonal distinction is now lost, with most or all of the morphemes previously noted as showing a tonal distinction now merging into a single list having the same tone.

As regards phonetics, the tones of a given dialect differ from one another in pitch height (e.g., high, mid, or low, with virtually infinite possibilities in intermediate pitch levels), and in contour (e.g., level, rising, falling, or combinations such as rising-falling). In addition, throughout much but not all of the Tai-speaking area, some of the tones, usually two but sometimes three, show a feature of glottal constriction, in which case the syllable, if it ends in a vowel or sonorant, usually has a final glottal closure except in close transition with the following syllable.
As regards number of tones, the greatest number of possible tonal contrasts is always found on what are sometimes called ‘smooth’, ‘free’, or ‘live’ syllables, i.e., those ending in voiced sounds (vowel, semivowel, or nasal). So far no Tai dialect has been found with fewer than five nor more than seven contrasting tones on syllables of this type.

On checked or ‘dead’ syllables, i.e., those ending in a stop (p, t, k, or, in some dialects, a final glottal stop which structurally has a different status from the glottal closure at the end of syllables having glottalized tones mentioned above), the number of possible tonal contrasts is always markedly smaller, usually two or three.

For example, in the best known language of the family, the Standard Thai or Siamese of Thailand, there are five contrasting tones on smooth syllables: (1) level, slightly lower than mid, with a slight fall before pause or open transition: khaa₁ ‘to be stuck’; (2) low level: khaa₂ ‘a kind of root used in cooking’; (3) falling, with glottal constriction: khaa₃ ‘to kill’; (4) high rising-falling, with glottal constriction: khaa₄ ‘to engage in trade’; (5) rising: khaa₅ ‘leg’.

But on checked syllables tones (1) and (5) never occur. If the vowel is short, the possibilities are: (2) low level: phit² ‘to be wrong’; (4) high level: phit⁴ ‘poison’; (3) (rare) falling: khla₃ ‘crowded’.

And if the syllable has a long vowel or diphthong, the possibilities are: (2) low level: maak² ‘areca nut’; (3) falling: maak₃ ‘many, much, very’; (4) (rare) high level: kaat⁴ ‘card’.

Published descriptions of the tonal systems of Tai languages (as well as other tonal languages of the Far East) reveal two different conventions as regards the numbering of tones. Some scholars are in the habit of listing first the tones on smooth syllables, where the maximum number of contrasts is possible, and then going on to assign additional numbers to the tones occurring on checked syllables. Other scholars, recognizing that the two sets of tones are in complementary distribution, identify the tones occurring on checked syllables with the phonetically most similar tones of the other set. This is the principle used in the traditional numbering of the tones of Standard Thai, as in the data cited above, so that, for example, the high level tone of checked syllables is identified with the fourth (high rising-falling) tone of smooth syllables, to which it is phonetically most closely similar, though not identical.

This disparity in method of counting tones is, of course, of no real importance, since a good description will always make clear which procedure has been followed, but it makes it necessary for one to find out which method has been used if, for example, he hears or reads the statement that a particular Tai dialect has, say, seven tones.

No one knows yet how many different tonal systems, and therefore, if one uses tonal systems as the criterion for dialect boundaries, how many dialects there are in the Tai-speaking domain. It seems safe to guess that the total number reaches at least three or four hundred.

Vowel and consonant contrasts offer relatively little real difficulty to the field-
worker in languages of this family. Only occasionally does a serious problem arise with respect to the transcription and analysis of these segmentals. For example, a scholar accustomed to the usual two-way distinction in velar stops between \( k \) and \( kh \) who then attacks the White Tai of Lai Chao in North Vietnam finds that he has to discipline himself not to overlook its three-way distinction among \( k, kh, \) and the voiceless velar fricative \( x \). Recently in studying the variety of Nung spoken at Mung Khuong near Lao Kay in North Vietnam I spent some rather arduous days before I was able to determine whether [s] was in contrast with [s] and [ch]. Finally discovery of such minimal sets as \( chiw^2 \) (the second tone of this dialect is low level) 'to roast (e.g., peanuts)\': \( siw^2 \) 'chisel': \( \tilde{siw}^2 \) 'to be wrinkled or withered' settled the question. In vowels, most languages of this family have both a mid back unrounded, commonly transcribed \( a \), and a high back unrounded \( i \), and usually the difference is fairly clear, but in some Tai dialects the first of these two vowels is phonetically so high that constant care and rechecking is necessary not to mistake it for the higher \( i \). In some of the Nung dialects of southern Kwangsi the fieldworker has great trouble with the high back vowels; he often feels unsure whether to transcribe \( u \) or \( o \), and only after much sorting and testing discovers that in many of these dialects there is no contrast in this part of the vowel system.\(^1\)

But difficulties with consonants and vowels of the extreme sorts cited are not common. By exercising normal care and diligence, the fieldworker usually finds that the vowel and consonant distinctions in Tai languages are not formidable. But the tonal system is always troublesome from the very beginning, because it is sure to differ both phonetically and structurally from that of previously studied dialects, often in subtle ways. On the other hand, the investigator always feels that the tonal system is basic and has first priority, and that its mastery is perhaps the most important part of his task. Often it turns out that one's first transcriptions of vowels and consonants, especially if he has some previous experience with other dialects of the family, are largely valid phonemically, whereas one's first efforts to record tones phonetically often prove largely useless until the system of tonal contrasts is firmly established.

Even if one is working on a language or dialect of which previously published descriptions are available, he must undertake his own check with his informants. It may be found that previous descriptions, although perhaps flawlessly accurate, were based on a dialect spoken at some other geographical point, and that this makes a difference. Various students of the Lao dialect of the city of Vientiane, for example, have ended up with different findings depending upon which side of town their

\(^1\) The fieldwork referred to here, and of which this entire article is an indirect product, includes a year (1964-1965) supported by the American Council of Learned Societies and by the University of Michigan Graduate School and its Center for South and Southeast Asian Studies, a summer (1966) supported by the National Science Foundation, and a year (1968-1969) supported by a Fulbright-Hays grant from the Office of Education, sponsored also by the National Research Council of Thailand. Informants have been interviewed in Taiwan, Hong Kong, South Vietnam, Thailand, Laos, and India.
informants came from. When phonetic differences appear between one geographical point and another, one always has to consider and investigate the possibility that there are structural differences as well. An interesting problem of this sort exists to the west of Bangkok. As one travels westward through Ratburi and Phetburi he finds the phonetics of the tones changing drastically. Apparently no one has yet undertaken to find out just how far one has to go in this direction before reaching the boundary dividing the tonal system of Bangkok Thai from the other tonal systems of the peninsula.

Older descriptions may even be found to have overlooked tonal distinctions (to say nothing, of course, of early studies which disregarded tones entirely). I found a few years ago that Diguet's description of the Black Tai language of Son La in North Vietnam, which scholars have been using and citing for decades, had missed the distinction between the high level tone in a word like p̄i5 ‘fat’ and the mid-high level tone in a word like p̄i4 ‘older sibling’. (This matter was discussed in Gedney 1964). Such inaccuracies are, of course, especially frequent in the work of early writers on languages of this area, most of whom were amateurs, but they are not unknown even in more sophisticated recent publications. One has also to keep in mind the sad fact that misprints in tonal symbols are a common hazard.

For all these reasons, then, a fieldworker has to recheck tonal facts even if previously published descriptions of the tones of his dialect exist.

Educated informants in an area where there is a tradition of writing may claim to know how many tones there are in their dialect. Often such claims prove to be correct, and informants with this kind of expertise can save the fieldworker days or weeks of work. The former ruling prince of the Lue-speaking city of Chiang Rung in Sipsongpanna, Yunnan, now living at Mae Sai in northern Thailand, startled the present writer at their first meeting in 1964 by stating, correctly, that his dialect of Lue differed from the Lue spoken at the Burmese city of Moeng Yong in the distribution of tones on words having initial ŕ, b and d. Even in cases where there is no writing system, some informants are so intelligent that they are able to follow and criticize the analyst's effort to work out the system of contrasts, and once this is done to tell him explicitly which tone occurs on a morpheme that may be causing doubt. But it is never safe to place too much faith in the informants' notions about the tones of their own speech. Aside from occasional errors in detail, there is also the danger of fundamental misconceptions. A Shan speaker from Sen Wi in Burma once caused the present writer considerable confusion by insisting that his dialect had five tones, whereas it actually has six; his bias turned out to be caused by his having learned to read and write Shan at Si Po, where there is indeed a five-tone system. A little work with the checklist which will be presented at the end of this paper convinced him of his error. In another instance a speaker of a Chinese Shan dialect from southwestern Yunnan which has a five-tone system thought he had six tones in his speech, because as a young man he had been educated in Burma at a place where the local Shan dialect does indeed have six tones.