

THE SEGMENTAL AND SUPRASEGMENTAL REPRESENTATION
OF MALAY LOANWORDS IN SATUN THAI:
A DESCRIPTION WITH HISTORICAL REMARKS¹

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Unlike the Malays on the eastern, or Pattani (Patani) side of the peninsula in southernmost Thailand, the Malays on the western side, in Satun province, opposite the Malaysian state of Perlis, have largely abandoned the use of Malay as an active medium of communication and adopted southern Thai instead. This has happened in spite of the fact that they constitute 85% of the population. Their speech is, however, peppered with Malay loanwords, which have been obliged by the procrustean principles of the receptor language to adopt clearly long or short vowels in closed final syllables and also to receive fixed tones on every syllable (neither vowel length nor tone is phonemic in Malay). The Thai-Malaysian borderland is a setting in which we have the interesting confrontation of two peoples and cultures, and--what is of relevance to the present paper--two typologically different languages, tonal-cum-monosyllabic and non-tonal-cum-polysyllabic. It is the purpose of the present paper to describe the phonological treatment of, and especially the assignment of tones to, Malay words in the Satun dialect of Thai. It should be noted that Satun Malay is a Johoric², north-western Malay dialect, not very different from the dialects of Perlis and Kedah. Where it survives it shows no sign of becoming tonal, even in the mouths of speakers whose first language is Satun Thai, and the intrusion of tone into a Malay word is a clear sign that one is speaking Thai. Satun Thai, for its part, is a typical Pak Tai (southern Thai)³ dialect with a few peculiarities mostly attributable to Malay influence.

Abbreviations

Henceforth in this paper the following abbreviations will be used: SatT--Satun Thai, SatM--Satun Malay, ST--Standard Thai, SM--Standard Malay.

1. Segmental phonemes.

SatT has the segmental phonemes set forth in Table I below:⁴

Consonants										Vowels		
SOUND CATEGORIES	OBSTRUENTS	stops	vd.	b	d	j*	g ⁺	-	"mid" C.s	i/i: ɪ/ɪ: u/u:		
			vl.	p	t	c	k	ʔ		e/e: ə/ə: o/o:		
			vl.asp.	p ^h	t ^h	c ^h	k ^h	-		ɛ/ɛ: a/a: ⁰ ɔ/ɔ:		
		fric.s		f	s	-	-	h	"high"/"low" C.s	(plus nasalization [∇])		
										<u>Diphthongs</u>		
	SONORANTS	nasals		m	n	ɲ	ŋ			ia ia ua		
		liquids		-	l	-	-			(plus nasalization(?) ⁰)		
				-	r	-	-					
		semi-vowels		w		y*						

Table I

Notes: * The phonemic separateness of [j] and [ɣ] needs further investigation.

⁺ /g/ has been found only in Malay loanwords.

⁰ In the sequences /ay, aw/ (though not in /a:y, a:w/) /a/ is raised to [a~ʌ].

[∇] It is not known whether every vowel has a phonemically nasalized counterpart, and except for the environment following nasal consonants, and also /ʔ, h/, phonetically nasalized vowels have been found almost exclusively in words of Malay origin.

SatM has the segmental phonemes set forth in Table II below.

Consonants										Vowels		
SOUND CATEGORIES	OBSTRUENTS	stops	vd.	b	d	j	g	-		i/ɪ ^α u/ũ		
			vl.	p	t	c	k*	-		e ə o		
		fric.s	vd.		s ⁰	-	-	-	h	ɛ/ɛ̃ a/ã ^Φ ɔ/ɔ̃		
			vl.		z	-	-	-				
	SONORANTS	nasals		m	n	ɲ	ŋ					
		liquids			l							
					r ^Δ							
		semi-vowels		w		y [¶]						

Table II

Notes: */k/ in final position corresponds to SM /r/ in final position.

+/?/ in final position corresponds to SM orthographic k.

⁰/s/ is pronounced in final position as an [i]- or [e]-coloured [h]

[∇]/ʊ/ in non-final position corresponds to SM /r/ in non-final position.

^Δ/r/ occurs almost exclusively in loanwords.

[¶]/y/ in final position corresponds to both SM /y/ and SM /i/

[∞]None of the vowels /i, e, ε/ can occur before /k/ in final position, and an archiphoneme realized as [ia] corresponds to vowels of SM orthographic -ir, -er, the sequence [iak] corresponding to SM -ir, -er as a whole.

^ΦIn the sequences /ay, aw/ (but not in /a(h)i, a(h)u/), /a/ is raised to [e~ʌ].

The segmental aspect of Malay loanwords in SatT

SatT segments are used to render SatM segments in a straightforward way on the basis of phonetic similarity. As far as Tables I and II are concerned, a SatM phoneme in Table II will be rendered in SatT by the SatT phoneme noted with the same symbol in Table I, except that Sat /ʊ/ is rendered by SatT /r/ and SatM /z/ by SatT /s/. The SatT inventory has been enriched by the addition of /g/, which has been found only in Malay loanwords, and it seems that the sounds [ɣ] (the palatal semivowel) and [j] (the palatal stop) which are free variants of the ST /y/ semivowel phoneme in initial position have been split into two independent phonemes in SatT in conformity with the situation in SatM.

2. Syllable structure of SatT:

Syllable structure is relevant to the occurrence and allophonics of tones in SatT and to the assignment of tones to loanwords. Three aspects are relevant: whether the syllable is "live" or "dead", what the class of the initial consonant is, and whether the vowel is long or short. Also relevant are external circumstances, viz. whether the syllable is final or not in the morpheme and, when morphemes are combined into larger units, whether the syllable is stressed or not. The terms "live" and "dead" with reference to syllables are taken from Siamese school grammar and are used by Thai dialectologists. A "live" syllable is one which is open or ends in a sonorant. A "dead" syllable is one which ends in an obstruent. "High", "low" and "mid" referring to initial consonants are also Siamese school-grammar terms which are relevant in comparative Tai linguistics (see §7 below). "High" and "low" consonants were once phonetically distinguished into two series,

voiceless and voiced respectively, but have now merged into a class comprising continuants and voiceless aspirated stops, (v. Table I above). 'Mid' consonants comprise unaspirated stops, voiced and voiceless (v. same Table). With regard to vowel length, this depends on the final segment of the syllable, and it is convenient to divide syllables into the following types: (i) open or ending in a glottal segment (/ʔ/ or /h/), (ii) ending in a supraglottal consonant (i.e. all consonants except /ʔ, h/). Vowel length is bound in syllables of type (i) in the following manner: only long in open syllables and before /ʔ/; only short before /h/ (a final which has no basis in Ancient Thai and has been found only in Malay loans). Elsewhere, i.e., before supraglottal finals, vowels may be either long or short (and distinctively so): e.g., /tʰà:ŋ/ 'way' vs. /tʰàŋ/ 'both', /pē:t/ 'eight' vs. /pēt/ 'duck' (for explanation of tone marks see §3 below). Syllables with long vowels are referred to as "long", those with short vowels are referred to as "short".

3. Tones:

SatT has etic tones as set out in Table III below:

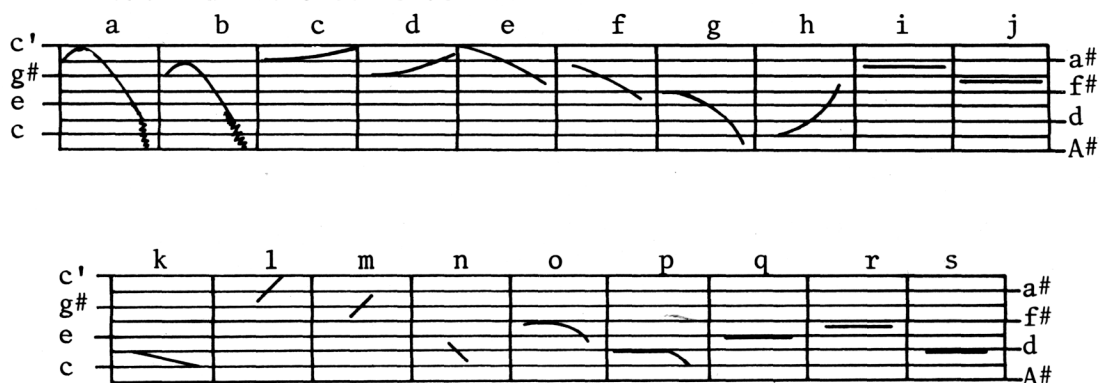


Table III: The Etic tones of SatT

The tones in Table III were plotted by ear from tape recordings with the aid of a pitch pipe. Notes in the interval C-below-middle C-to-B-below-middle C are written with upper case letters, while notes from the interval middle C-to-B-above-middle C are written with lower case letters. The horizontal lines thus mark intervals of one musical tone. The pitch tracings represent impressionistic averages made from the speech of the writer's principal informant, a man of about 50 years of age. Etic tones a--n occur in fully stressed syllables. Etic tones o---s occur in non-fully stressed syllables in a close-knit phrase with a following fully stressed syllable: they represent a kind of tonal sandhi (see below). Etic tones a--k occur in live syllables and long dead syllables. Etic tones l--n occur in short dead syllables. A definitive assignment of the etic tones to tone phonemes must await the gathering of more vocabulary so that it can be ascertained to

what extent the initial consonants co-occurring with given etic tones are in mutually exclusive distribution. This bears in particular on the question of whether or not etic tones a and b belong to one and the same phoneme; likewise i and j and l and m⁵. A tentative arrangement of the etic tones into tone phonemes⁶ is as follows:

Phoneme	Description	Allophones	Distribution of Allophones
/˥/	high rising-falling tone with occasional slightly creaky ending	(1) a, c, e, l, o (2) b, d, f, m, o	after "high"/"low" cons. ⁷ : a--canonical form; c, e--free variants; l--short dead syllable form; o--sandhi form ⁸ after "mid" cons.: b--canonical form; d, f--free variants; m--short dead syllable form; o--sandhi form
/˨˩/	mid falling tone	g, p	g--canonical form; p--sandhi form
/˨˩˩/	rising tone	h, q	h--canonical form; q--sandhi form
/˨˩˩˩/	high level tone	i, j, r	i, j--canonical forms: i after "high" C's, j after "mid" C's (?); r--sandhi form
/˨˩˩˩˩/	low slightly falling tone	k, n, s	k--canonical form; n--short dead syllable form; s--sandhi form

Further slight allophonic variation is caused by the fact that close vowels take etic tones that are about a semitone above open vowels.

3.1 Occurrence possibilities of the tones

Syllables of each particular structural type have a particular set of tones which can co-occur with them. With the proviso that further vocabulary collection may expand some of the sets and clarify some of the phonemic problems mentioned in §3 above, these sets may be stated briefly as follows: (i) short dead syllables with "high/low" initials--/˥˩˩˩˩/; (ii) short dead syllables with "mid" initials--/˥˩˩˩˩/; (iii) long dead syllables--/˥˩˩˩˩˩/; (iv) live syllables with "high/low" initials--/˥˩˩˩˩˩˩˩/; (v) live syllables with "mid" initials--/˥˩˩˩˩˩˩˩/.

3.2 Examples of the tones in inherited Thai words:

/˥˩˩˩˩˩˩˩/ - /sâ:/ 'colour', /sê:/ 'four', /kâ:/ 'to polish'; /kâ:/ 'crow', /dâ:/ (i) kind of bug from which a condiment is made, (ii) 'to scold', /kâ:/ 'to bite'; /kâ:/ 'to be stuck', /pâ:/ 'enough'; /˥˩˩˩˩˩˩˩/ - /kâ:/ 'fee' /pâ:/ 'father', /bê:/ 'knife', /mâ:/ 'much, very', /pâ:/ 'monk', /kâ:/ 'to pick (the ears or nose)'; /˥˩˩˩˩˩˩˩/ - /kâ:/ 'to kill', /hâ:/ 'five', /klây/ 'banana', /bâ:/ 'crazy', /kâ:/ 'to be torn', /mâ:/ 'to be suitable', /bâ:/ 'sin', /dû:/ 'to be fierce'; /˥˩˩˩˩˩˩˩/ - /nâ:/ 'water', /râ:/ 'hundred', /nâ:/ 'bird', /lâ:/ 'to steal'.

Tone sandhi and stress reduction

Except in phrase-final position a tone does not usually have its canonical shape, but tends towards sandhi forms, the more the stress reduction the greater the modification. Typical positions for tonal sandhi are the first element in a compound and the first element in a reduplicate. In order to mark tonal sandhi a micron ("̣") will be placed over the syllable in question: e.g., /ṃɛ: ṇa:m/ 'river', /ḅay ṃa:y/ 'leaf', /ṣă:m ṣa:m/ 'idiosyncratically blended (of two different languages or cultures)' (see §8.3 below for further discussion of the meaning of this word). The forms just cited display what might be called the *first degree of stress reduction*, in which vowels retain their distinctive quality but length distinctions tend to be neutralized. For the phonetic realization of tones in the first degree of stress reduction see items o--s in Table III above. In the *second*, or extreme, *degree of stress reduction*, final consonants are lost and all vowels are replaced by [ə], which can be conveniently interpreted phonemically as (short) /a/, and all tonal distinctions are lost, the etic pitch corresponding more or less to q in the Table of etic tones above. In a phonemic transcription this "architoneme" could be marked with the single symbol "̣", or simply left unmarked. Examples are /p̣ḥanj:/ 'like this', /ḳḥăṣa:n/ 'milled rice', /ṣăḍâ:y/ 'to regret', which have the fuller forms /p̣ḥaṇ nj:/, /ḳḥă:w ṣa:n/ and /ṣia ḍâ:y/ respectively.

4. Assignment of length to Malay loanwords

Vowel length is, as we have said, non-distinctive in SatM and phonetically vowels are long in open syllables, short before final /h/ and half-long before all other final consonants. However the vowel /ə/ is quite special in that it is always very short (and also never occurs in final syllables). As for SatT, the position of vowel length in native words has been discussed in §2 above, s.v. syllable structure. In discussing the assignment of vowel length to Malay loanwords in SatT we shall distinguish between non-final and final syllables.

Non-final syllables:

Here the rule is that SatM /ə/ counts as SatT short /a/, and other vowels count as long in open syllables, short in closed syllables. For examples see §5.1 below.

Final syllables:

As with native SatT words vowel length depends on the nature of the final segment, though with one difference. Thus vowels may be only short before final /h/, only long before all other obstruent finals including /ʔ/ and in open syllables, but may be distinctively either long or short in syllables closed by a sonorant: thus /ṣũ:ṣâh/ 'difficult' (SatM /susah/, SM susah⁹), /ṛē:ḅêh/ 'tumbledown', (SatM /ḅeḅeh/,

SM rebeh); /tǎrō:ʔ/ 'intense' (see §3 above); /tō:ʔ-nē:nē:ʔ/ 'ancestors' (SatM /toʔ-nenēʔ/ SM 'to'-nenek); /mā:wā:k/ 'gibbon' ((as if corresponding to a SM mawar) SatM /mawāk/, SM uak-uak), /yē:p/ abbreviated form of the name Taib (SatM /yep/); /mā:n/ abbreviated form of the name Othman, vs. /mān/ abbreviated form of the name Suleiman; /hē:m/ abbreviated form or the names Ibrahim, Rahim, vs. /lēm/ abbreviated form of the names Salim, Halim. It should be noted that the SatT possibility of distinctive length in syllables closed by supraglottal obstruents is not utilized in Malay loanwords. This is interesting, but more interesting is the fact that distinctive length *is* found in Malay loanwords at all, since this has no counterpart in the source language.

5. Assignment of tones to Malay loanwords

The assignment of tones to Malay loanwords is governed by a productive rule which can be very simply stated: /[^]/ is assigned to live final syllables, and /^ˉ/ is assigned elsewhere. There are some exceptions to this, as one would expect, but the writer has found very few. Some of the exceptions can be explained historically, as will be discussed below. First of all let us proceed to a detailed exposition of the rule which we have just set out.

5.1 Non-final syllables

Non-final syllables in polysyllabic morphemes are subject to stress reduction, with SatM syllables containing /ə/ being treated as showing the second degree of stress reduction and having neutral tone (phonetically about q or s of Table III above): e.g., /tǎrō:ʔ/ 'intense' (SatM /təroʔ/, SM těrok), /tǎbā:lē:ʔ/ 'to be overturned' (SatM /təbaleʔ/, SM těrbalek). Non-final syllables with vowels other than /ə/ are treated as exhibiting the first degree of stress reduction and assigned the sandhi form of tone /^ˉ/. As explained above, the vowels count as long if the syllable is open, short if it is closed. Some examples of words with closed non-final syllables are /mākṛē:p/ 'sunset prayer-time' (SM maghrib), and /mũtsāhā:p/ 'Islamic sect' (SM madzhab). Many examples of words with open non-final syllables will be found in the following paragraphs. *Exceptions:* Irregular tones are to be found in both the penult and ult of /chānchì:/ 'to promise' (SatM /janji/, SM janji) and /kḥũ:rì:/, a kind of jar (SatM /guṣi/, SM guri), which are shown to be fairly ancient loanwords by their voiceless aspirate initials in place of the Malay plain voiced stops (see §8.1 below).

5.2 Final syllables

The set of tones which may be assigned to the final syllable of a Malay loanword is determined by the structural character of the syllable according to the same principles as those which apply to native SatT words. Thus the relevant features are the "liveness" or "deadness" of the syllable, the class of its initial consonant, and whether the vowel is long or short. Vowel length with regard to Malay loanwords has been discussed in §4 above. Syllables are treated

as live or dead on the same principles as native SatT syllables, and initial consonants are treated as "high/low" or "mid" by analogy with their SatT counterparts. According to the productive rule the only relevance of the class of the initial consonant is at the allophonic level, and the rules are the same as for native SatT words (see §3 above). Class of initial becomes more relevant, however, when one tries to explain the exceptions: see §8.1 below. It is theoretically possible for loanwords to be assigned any of five tones in live syllables and either of two tones in dead syllables, as set out in §3.1 above. In fact, however, the only tones assigned are as follows:

5.2.1 Live syllables:

These receive the rising-falling tone: /^{˥˩}/ e.g., /mā:n/ abbreviated form of the name Othman, /mân/ abbreviated form of the name Suleiman, /ʔā:/ abbreviated form of the name Ishmael, /dên/ abbreviated form of the names Abidin, Burhanuddin. *Exceptions:* Occasionally, however, we find /^{˥˥}/ or /^{˩˩}/: e.g., /^{˥˥}/ in /lāŋkā:wì:/ name of an island (SM Langkawi) vs. /jā:wī:/ 'Malay' (SatM /jawi/, SM jawi), /kū:rì:/, a kind of jar (SatM /guri/, SM guri) vs. /nū:rī/ 'religious feast' (SatM /nyuri/, SM kënduri), /mālā:yū:/ 'Malay' (SatM /məlayu/, SM Məlayu) vs. /kā:yū:/ 'wood' (SatM /kayu/, SM kayu); /^{˩˩}/ in /sā:rō:ŋ/ 'sarong' (SatM /sarong/, SM sarong) vs. /hā:rôn/ SatT form of the name Harun, /sā/ 'tiffin-carrier (a food container)' (SatM /sā/, SM sia, from Chinese; called in ST /pìn-to:/, /kō:pT:/ 'coffee' SatM /kopi/, SM kopi (obviously ultimately from English, but the tones may well come from the Chinese version of this word); called in ST /ka:fɛ:/), /bī:sē:ŋ/ 'rumour' (SM bising 'noise, chatter'; called in ST /khà:w lɛ:/), /sū:rāw/ 'small Muslim chapel' (SM surau; also borrowed into ST, with irregular tone, as /surāw/), /mā:ʔyō:ŋ/ (kind of dramatic performance; SM ma'yong). One instance of /^{˥˥}/ was noted: /lé(:)ŋ/ (length uncertain: a measure for grain; SM leng).

5.2.2 Dead syllables:

(i) long--only the high level tone /^{˥˥}/: e.g., /ʔā:sē:t/ SatT form of the name Aziz, /jā:fā:t/ SatT form of the name Ja'far, /pō:nō:/ 'pondok (religious school consisting of huts in the forest)' (SatM /pondō:/, SM pondok), /jā:kā:t/ 'tithe' (SatM /jakat/, SM zakat), /lū:nā:p/ 'to gorge oneself' (SatM /lungap/, SM lungap), /pū:kā:t/ 'seine-net' (SatM /pukat/, SM pukat), /nō:k/ 'coconut' (SatM /nok/, SM nyir). *Exceptions:* One exception has been noted: /phá:ʔ/ 'flooded' (SM bah). (ii) short--(only with final /h/) /^{˥˥}/: e.g., /mī:nāh/, abbreviation of the name Aminah, /dō:lāh/, abbreviation of the name Abdullah, /tē:nēh/ 'to mash', (SM lenyeh), /rē:bēh/ 'tumbledown' (SatM /rebēh/, SM rebēh), /bē:dāh/, abbreviation of the name Zubaidah (SatM /bedah/). *Exceptions:* No exceptions have been noted. It will be seen that the word /phá:ʔ/ mentioned in (i) above is irregular, *inter alia*, in that final /h/ is replaced by /ʔ/ (see §8 below).

6. Possible reasons for the tone assignments

The regular tone assignments may perhaps be explained on the basis of phonetic similarity with the pitch of the words pronounced in SatM as one-word utterances with statement intonation. Under such circumstances the final syllable will carry the *nucleus* (alias "contour") of the intonation, in this case a fall with a fairly high beginning, and any preceding syllables will carry the *head* (alias "pre-contour") of the intonation, in this case a fairly high level pitch. Tones /^ˈ/ and /, / are unsuitable for representing the nucleus because their starting-points are too low, and /' / because it has the wrong shape. In spite of the differences in phonetic shape /^ˈ/ can be regarded as the most suitable tone for representing a SatM falling intonation nucleus because of its high starting point, but it is, of course, by the SatT rules for tonal occurrence, possible only in live or /h/-checked syllables. It is the height of the starting-point too which determines the assignment of /^ˈ/ to word-final long dead syllables. For the intonation *head*, /^ˈ/ is clearly the best rendition, even though tonal sandhi lowers its pitch more than is normal for SatM statement intonation. As for the words with exceptional tones, here historical and etymological considerations arise (e.g., the identity of the proximate source language, the period in which the word was borrowed) which will be discussed below.

7. Historical tonal categories and the Great Transphonologization

In *comparative and historical* work on Tai languages it is very revealing to classify syllables in the same way that we have found it expedient to do in the preceding *descriptive* discussion, viz., into live and dead syllables, long and short syllables and syllables introduced by "high", "mid" and "low" initials. As explained previously "high" and "low" initials were once distinguished as voiceless and voiced respectively. As for the "mid" consonants, these are believed to have been (and may indeed still be) characterized by some form or another of glottalization. Live syllables are subdivided for comparative purposes into categories A, B and C (those with, respectively, no tone mark, mai ek and mai tho in the Thai script). While dead syllables, known as category D, are subdivided into DL--long dead, and DS--short dead. We will now set this out graphically in Table IV. Category DL is placed in the table most conveniently between B and C because it nearly always shares tones with one or other of those categories. The boxes in the Table are filled in with ST words exemplifying the class of words which fill them. By convention, the terms "high", "mid", "low" are often replaced by the numbers 1, 2, 3, 4 (2 and 3 here conflated), as shown.

	A	B	DL	C	DS
(HIGH) 1	ชา	ข้า	ชาต	ข้า	ชัต
(MID) 23 (2)	ปา	ป่า	ปาด	ป้า	ปัด
(3)	บา	บ้า	บาต	บ้า	บัต
(LOW) 4	คา	ค้ำ	คาต	ค้ำ	คัต

Table IV: Historical syllable-cum-tone categories

Now according to the way tones developed it is possible in principle for each of these boxes to have a tone to itself, giving a total of 15 different tones, and certainly the tonal fate of each box must be dealt with separately, but in practice the number of tones in any actual language or dialect is always less than this because *some boxes share tones*. One and the same box will either not share its tone at all or share it with a different set of boxes in each language and/or dialect, and this provides us with a good way of classifying languages/dialects. Thus in *ST*, disregarding words spelled with mai tri and mai chattawa since these do not fit the regular comparative sound-laws, the boxes share tones in the following way: A1 (unshared, rising tone); A23, A4 (known jointly as A234, mid tone); B1, B23, DL1, DL23 (known jointly as B123--DL123, low tone); B4, C1, C23, (known jointly as B4--C123, falling tone), C4 (unshared, high tone). In *SatT* the pattern is A123--B123 /[^]/, A4 /[^]/, B4--DL4 /[^]/, C123--DL123 /⁻/, C4 /[.]/. Where boxes in the same column do not share their tone we say that there is a *split*, e.g., *ST* has an A1/234 split and *SatT* has an A123/4 split. Most southern Thai dialects have an A1/23/4 split. Where boxes of different columns share tones we say that has been a *coalescence*: e.g., *SatT* and almost all southern Thai shows an A--B coalescence in Rows 1 and 23, however short dead syllables are peculiar in various ways and for comparative purposes are not generally considered capable of coalescing with other columns. We can more easily see the different pattern of splits and coalescences as between *ST* and *SatT* in Tables V and VI below:

ST				
A1	B1	DL1	C1	DS1
A23	B23	DL23	C23	DS23
A4	B4	DL4	C4	DS4

Table V

SatT				
A1	B1	DL1	C1	DS1
A23	B23	DL23	C23	DS23
A4	B4	DL4	C4	DS4

Table VI

One difference which is not shown on Tables V and VI is that words ending in /[?]/ (let us call them D[?] words) share tones with DS in *ST*, DL in *SatT* and southern Thai in general.

The Great Transphonologization

We have reason to believe that once upon a time initial stops of Row 4 syllables, i.e., "low" stops, were voiced and the tones of Row 4 were not phonemically opposed to the tones of Row 1 of the corresponding boxes. Now as part of what the present writer is calling "The Great Transphonologization" (it has no generally accepted name)

the initial stops of Row 4 lost their voicing and there was a split between the tones of Row 4 and Row 1. In ST and SatT the Row 4 initial stops became aspirated and identical with Row 1 stops but, as in the other Tai dialects, the Row 4 syllable was still distinct from the Row 1 syllable because of the now-differentiated tones.¹⁰

8. Significance of the tonalization phenomenon

The first point which must be made here is that the fact that Malay words receive tones on being adopted into SatT does *not* in itself distinguish SatT among the Thai dialects, including ST, for with *all* Thai dialects all loanwords receive tones, whether the donor language is tonal or not. With the possible exception of the *tour de force* of, let us say, an English-Thai bilingual, who can at will punctuate his Thai with English words whose pitch-contour is determined entirely by *sentence* intonation (a rare phenomenon which would undoubtedly be regarded as affected in a way that simply using a lot of English words but with Thai tones in one's speech would not) it is impossible to speak Thai without giving every syllable one of the lexical tones in the system, with appropriate modifications for tone-sandhi and so on. Some questions of real significance in the present connection are (a) Are the tones fixed for each particular word? (Yes, they are). (b) Are the tones assigned at random or according to rules? (According to rules, as set out above). (c) Do the rules of tone assignment take into account the segmental structure of the word, other suprasegmental features such as length and stress, and the position of a syllable in relation to the word boundary? (To some extent, as set out above). (d) Can any motivation be seen for the rules? (Perhaps phonetic similarity to the intonation of the source language: see §6 above). (e) Are there any similarities between the rules in SatT and those for tonalizing loanwords in any other dialect of Thai? (Yes, although the details differ, in what is probably the commonest case statistically, viz. a disyllabic morpheme of two live syllables, ST treats English and other non-tonal languages in a way which is remarkably similar phonetically: a mid level tone followed by a falling tone.¹¹ This may well be of relevance to the perceptual psychology of tonal systems, and serves as a warning against the too-easy acceptance of the natural view that level tones are "normal" and oblique tones are not to be expected in live syllables borrowed from a toneless language¹²). (f) Are the exceptions to the rules, if any, themselves regular enough to constitute *counter-rules*, thus *stratifying* the vocabulary into words which obey the rules, and words which obey the counterrules? (Much more vocabulary needs to be collected before this can be adequately answered for SatT specifically, but from the few exceptions mentioned above we can see at least one suspicion of a counterrule, viz. syllables with "high"/"low" initials and /'/, Malay plain voiced initial stops being rendered by Thai voiceless aspirated initial stops, and final /h/ by Thai /ʔ/. With regard to the initials, note that Malay has no aspirated stops and that normally SatM voiced stops are rendered by SatT voiced stops. See further discussion below (§8.1)). (g) Does the set of tones assigned correlate with any *diachronic* (as opposed to

synchronic) grouping of tones? (Yes, with live syllables the tone assigned by the productive rule, /[^]/, and also the tone normally assigned by the "counterrule", /[^]/, fall into the A (or merged A-B) column of tones, while with dead syllables the tones assigned, /[^]/, fall, as one would expect, into the D columns. This accords with the Thai tonal treatment of Indic and Khmer loanwords,¹³ but only partially with the contemporary ST treatment of English loanwords (see fn. 10 and (e) above)). (h) Does the phenomenon cast light on other problems of the languages or language families involved, or on general linguistics or sociolinguistics, or on other aspects of Thai or Malay studies? (It may provide evidence concerning Thai phonological history and at the same time about the history of the Thai settlement of the Malay Peninsula and of Thai-Malay cultural relations (see further discussion in 8.1-3 below). It may, as has been said, provide evidence on the manner in which the speakers of a tone language perceive the pitch patterns of a non-tonal language, and thus be of relevance to the general study of suprasegmental systems. Since two languages are confronting one another in a single community it provides data for the general study of languages in contact and the sociolinguistic problem of language-shift (the shift process being controlled to some extent by the danger of being called "samsam": see §8.3 below). Since the contact is between a tonal language and a non-tonal-language it may cast some light on the problem of the diffusibility of tonality (see §8.4 below)).

8.1 The phonological history of the Tai languages and the migrational history of the Tai peoples

The Great Transphonologization was a capital event in the phonological history of the Tai languages. Chamberlain (1972, 1974) has built partly upon it a theory of the subgrouping of a suggested protolanguage which includes the South-western Tai languages, of the location of the homeland of this protolanguage and of the routes of its dispersion. He assumes that the languages of this suggested grouping of the Tai languages were one at the time of the Transphonologization and that this unitary protolanguage was domiciled near the ancient capital of Ba Thuc in the vicinity of Cao Bang (on the North Vietnam-China border). He takes the view that the devoicing soundshift slightly preceded a series of uprisings among Tai peoples which took place in this area in the middle of the 8th century and that the ethnic dispersions which ensued represent the dispersion of this language grouping, the starting-point of those migrations which led to the present geographical distribution of the South-Western and Central Tai languages. Insofar as his argumentation depends on the anteriority of the great soundshift to the dispersion and on the location of the language at the time of the soundshift being Ba Thuc¹⁴ it is gravely weakened by the phonology of loanwords from Indic, Khmer and, it may now be added, Malay,¹⁵ in the various South-Western Tai languages and by the phonology of Tai loanwords in such languages as Khmu¹⁶, Mon and Malay (see below), for these supply almost incontrovertible

evidence that Tai-Indic, Tai-Khmer, Tai-Mon, Tai-Khmu and Tai-Malay cultural relations began before the soundshift, and it can hardly be supposed that all these different ethnic groups--or their influences--were in the vicinity of Ba Thuc during the formative stage of the suggested protolanguage. Chamberlain himself states that there seems to have been little or no Indic influence in the area, and would probably consider it otiose in the extreme to say that there was no Malay influence. Some of the damaging Malay evidence relates to the exceptional loanwords in SatT mentioned above which follow the "counterrule". Without going too far into the matter, we have two strata of Malay loanwords in SatT, and for that matter, in southern Thai in general:--one in which the voiced initial stops of Malay are treated as "low" stops in Thai, i.e., rendered by voiceless aspirates and given Row 4 tones (or allotones (the counterrule), and one in which they are treated as "mid", i.e., rendered by voiced stops and given Row 23 tones or allotones (the productive rule). The words which follow the counterrule must have been borrowed at a time when the speakers of Thai could equate Malay voiced stops with their own "low" stops, i.e., when their "low" stops were still voiced. Furthermore there are cases of borrowing in the reverse direction which are stratified in the same way: one stratum in which Thai "lows" are represented by Malay voiced stops, and one stratum in which Thai "lows" are represented by Malay voiceless stops. It should be noted that the counterrule relationship can be seen also in ST and SM with regard to Indic loanwords, e.g. (disregarding tones for simplicity's sake from here to the end of the paragraph) /pʰayth̥u:n/ 'cat's-eye' and SM baiduri, (id.); /kʰoŋkʰa:/ 'Ganges' and SM *Gangga*, (id.); and equally with respect to pure-Malay words in ST, e.g., SM *durian* 'durian' and ST /tʰurian/ (id.), SM *Jawa* 'Jawa' and ST /tʰawa:/ (id.), SM *sagu* 'sago' and ST /sa:kʰu:/ (id.), and pure (or at least non-Indic) Thai words in SM, e.g., ST /pʰraʔ/ (a Siamese title) and SM běra(k) (id.), ST /tʰan/ 'to have time for' and northern Malay dan (id.), ST /kʰwa:m/ 'a lawsuit' and SM guam (id.), ST /kʰu:/ 'mate' and SM gu (id.). If we now consider southern Thai we find many more examples, such as /ta:ch̥i:/ 'a plaything incorporating a cockspur' and SM taji 'steel spur for fighting cock', /kʰuan/ 'hillock' and northern Malay gual/guar (id.), /kʰoŋ/ 'corn' and SM jagong (id.). Examples of Thai words in Pattani Malay or general East Coast Malay are /bɔ:/ 'as soon as' (cf. ST /pʰɔ:/ (id.)), /bɛlɛ...bɛlɛ.../ 'simultaneously' (cf. ST /pʰla:ŋ...pʰla:ŋ.../ (id.)) and /g:oʔ/ 'gaol' (cf. southern Thai /kʰok/, ST /kʰuk/ (id.)).¹⁷

8.2 Thai-Malay cultural relations

From what has been said in the preceding paragraph we may conclude either that speakers of Thai and Malay were in touch with one another before the devoicing of the Thai "low" consonants and its concomitant emergence of a "low" series of tone phonemes, or else that this change was completed when cultural contacts began but that before this a now-vanished *intermediary language* had borrowed from Malay the "counterrule" words, independently duplicated the Thai devoicing and tone-splitting and then passed these words

on to Thai with tones of exactly the right properties to fit into the Thai "low" tone row. Dismissing the latter possibility as highly improbable we have reached the important conclusion that the devoicing and tone split did not occur until after contact began between the Thais and Malays--presumably in the Malay Peninsula, or, more precisely, in those provinces in which there is now quite a high proportion of "Thai Muslims" in the population. As regards the date when contacts began, there is some historical evidence that the Sukhothai Thai were in the isthmus in the late 13th century (Teeuw and Wyatt: 5), and linguistic evidence strengthens the view that these Thai were of the Sukhothai branch (Brown 1966 and present volume). An important event in the literary history of Thailand now gives us another reference point for an absolute chronology of Thai phonological history, viz., the appearance of Siamese versions of the Inao legends, which are of Javanese origin and have come down to us as "Inao" and "Dalang". Now the tones assigned in these works to words of Javanese origin, notably the rising tone in live syllables with continuant initials as against the mid tone in live syllables with stop initials, seem somewhat enigmatic, if not bizarre: what could possibly motivate the assignment of rising tone at all? And why only after continuant initials? The answer, it seems to the present writer, lies in the soundlaw correspondences of ST tones with those of southern Thai: ST rising tone after continuant initials and mid tone after plosive initials, voiced and voiceless unaspirated, represent the historical categories A1 and A23 respectively and answer to SatT /[^]/ (and the corresponding tone(s) of other Pak Tai dialects) which is, as we have seen, the tone regularly assigned to final live syllables of loanwords from Malay (and it is generally agreed that the Inao stories came to Thailand via Malaya). Now educated speakers of southern Thai are able instantaneously to apply the soundlaws and switch tonal systems between southern Thai and ST. In converting Pak Tai tones to ST tones they quite indifferent as to whether the words involved are inherited or borrowed, and what, if they *are* borrowed, their ST tone would be if ST were itself to take them directly from the source language (in current borrowings ST almost never uses the rising tone: see fn. 11 above). Orthographically, SatT /[^]/ (and its correspondents in other southern Thai dialects) after continuant initials answers to the "high" initial consonants of the Thai script, and this accounts for the commonness of these letters in personal names and place names of Malay (and sometimes ultimately Arabic) origin in the southern provinces: e.g., ดุสน (SM dusun 'orchard') and ตันจง (SM tanjong 'promontory') in place names, and the personal names ราหิม (cf. SM rahim) and ฮารุน (cf. SM harun). Needless to say, these items would be read with rising tone in their final syllables in ST. It seems reasonable therefore that the spellings ฮิเนนา, คาทล้ง, คาทา and so on, with their concomitant rising tones in ST, reflect entry into ST via southern Thai.¹⁸ Another point of great importance arises here the voiced initial stops of Javanese, or of Malay acting as intermediary, are rendered in Thai with "mid" voiced stops and the appropriate /[^]/ tone in southern Thai, and by the mid tone of ST, and not by "low" stops with their associated tones. Here we have evi-

dence that at the time when the Inao stories entered Thailand, i.e., about the middle of the eighteenth century (perhaps earlier in the south), the devoicing of the "low" consonants with its concomitant tonal developments was complete in southern Thai, as was the denasalization of the old *ʔm-, *ʔn (if we accept Brown 1965's postulation of these as the antecedents of SatT, ST /b-, d-/). Thus a study of Malay loanwords together with certain facts of extra-linguistic history give us the earliest likely and latest possible dates for the Great Transphonologization in southern Thai, viz. the 13th and 18th centuries respectively.¹⁹

8.3 Samsam

In connection with the general topic of the use of Malay words in SatT a few words about an epithet which is of sociolinguistic importance are in order. Winstedt's *Malay-English dictionary* glosses the Malay word *Samsam* as "Siamese-speaking Muslims (of N. Malaya)", and adds in his Malay-Malay dictionary the meaning 'an ethnically mixed person with a Malay father and a Thai mother'. The ST săm, which can be reduplicated, means 'to be a mixture' or 'not choosing or preferring one to another (as of race or colour)'. In Satun, people who are culturally or linguistically mixed, "neither fish nor fowl", are referred to as /sâ:m-sâ:m/ 'idiosyncratically blended' by the Siamese-speaking Muslims (who constitute 85% of the population), but they apply the word to individuals only, not to a whole community of people, and certainly not to themselves collectively. It is slightly pejorative. The linguistic relevance of the term is that it is used to characterize in a SatT-speaking situation any expression which is taken from Malay when it is the corresponding Thai expression which is in common usage. For instance, it is "samsam" in SatT to use the words /sē:wâ:, mā:hâ:y, mā:nā:t/, (SM sewa, mahal, moyat) meaning 'to hire', 'expensive' and 'corpse' respectively, instead of the corresponding words of Thai origin /châ:w, phê:ŋ, sôp/ (ST. /châw, phê:ŋ, sôp/) respectively. But even lexical promiscuity is subject to the rule of tonalization: short dead syllables and final live syllables receive rising-falling tones, long dead syllables receive high level tone. Sociolinguistically, it appears that in Satun we have an interesting case of a borderland community making a major shift of primary cultural allegiance but using a linguistic device--the use of tonalized Malay words in Thai speech--to signal the dual ethnic connection. In this process there is a penalty (being labelled "samsam", which so far as the people of Satun are concerned, means sitting too much on the fence, emphasising the Malay connection yet not being 100% Malay) for not keeping in step.

8.4 S.-E. Asian language groupings: genetics vs. diffusion

Apart from its relevance to the various questions discussed above, the divers effects of contact between Malay and Thai are of interest to comparativists of all language families indigenous to S.-E. Asia inasmuch as certain scholars, notably Haudricourt and Benedict,²⁰ in assigning various languages to one family or another,

have postulated as part of the evolution of sundry languages in the Asian and Pacific area the *transfer of tonality* or non-tonality (as the case may be) by language contact, even across genetic boundaries. In some cases the contact does not now exist and can only be inferred, and in any case we badly need case studies of contact between tonal and non-tonal languages. It is hoped that some data relevant to this subject will emerge from studies being carried out by the present writer on both the Pattani and Satun sides of the peninsula. In the case of Satun, be it noted, both languages retain their respective character of tonality or non-tonality at the same time that loans from SatM to SatT are tonalized. Vocabulary is being adopted from SatM to SatT in a way which is at least open-ended, if not wholesale, and each lexical item receives its tones according to rules. These rules, as has been said, apply even to idiosyncratic or nonce ("samsam") loans. This is going on in a population which encompasses bilinguals as well as monolingual speakers of both languages, and in which SatT is well on the way to displacing SatM as the language of hearth and home.²¹

NOTES

- ¹ This paper represents an expansion and adaption for a readership of Tai specialists of "Tonalized Malay vocabulary in Satun, Thailand: where northern Malay meets southern Thai", a paper presented at the First International Conference on Comparative Austronesian Linguistics, January 2-7, 1974, Honolulu, Hawaii. Thanks are hereby expressed to Professor Arthur S. Abramson for reading and offering helpful comments on the earlier version.
- ² By contrast with the Thai situation, there seems to be very little linguistic literature on the dialects of Malay and especially their classification. In a private communication three years ago Professor Ismael Hussein of the University of Malaya informed the writer that he had carried out a survey of Peninsular Malay dialects using lexical criteria, that the results had not been published but that it had emerged that all the dialects studied fell into one of two groups, viz. Patanic (east coast dialects from Pattani in Thailand down through Trengganu) and Johoric (all the rest).
- ³ Because of the confusibility of the terms "Thai" and "Tai" it is probably better to refer to the regional superdialect of southern Thailand as "Pak Tai" (standard Thai /pàk tâ:y/ (v. fn.4 below) as is done by the people of that region themselves. But "southern Thai" is already established in the literature and the two terms are used interchangeably in the present paper. The Satun dialect of Pak Tai described here is essentially that of educated middle-aged speakers of the *amphoe meuang* (provincial capital district), both bilingual in Satun Thai and Satun Malay, and monolingual in Satun Thai, i.e. unable to speak Malay. Except for one or two

villages in the *amphoe meuang* which are monolingual Malay-speaking, the ability to speak Malay is limited to people in their mid-forties and older. Data on Satul Malay were gathered only from informants who spoke Thai as well (not by design but by the circumstances of the fieldwork). All informants for Satun Thai could also speak Standard Thai (again not by design but by fieldwork circumstances). Data on Satun Thai and Satun Malay were gathered on and off in Satun and Bangkok between May 1972 and May 1974. As in other parts of the South, truly local dialects are giving way to a southern Thai *koiné* consisting of Standard Thai vocabulary except for a few typically southern expressions with the phonology of Nakhorn Sithammarat or Songkhla (see fn. 5 below).

- 4 In the phonetic and phonemic notation symbols have more or less IPA sound values except that "j" indicates a palatal stop, "y" a palatal semivowel, and "a" a low, central vowel. To convert the transcription of ST into that used in Mary Haas' Dictionary change "i" to "y", "y" to "j" and ":" to a doubling of the preceding vowel, and "p", "t", "k" in syllable-final position to "b", "d", "g". There are no striking differences between the vowels and consonants of SatT and the corresponding sounds of ST, except for the special SatT pronunciation of /a/ in /ay, aw/ (see Note⁷ to Table I).
- 5 Similar problems of phonemic interpretation probably arise with many southern Thai dialects. It is a problem of *interpretation* whether or not /[^]/ (for an enumeration of the tone phonemes v. below in this same paragraph) should be separated into a high and very high tone phoneme of like contour. A question of *fact* not yet resolved to the writer's satisfaction is whether two stably differentiated pitch levels, high and very high, again determined by initial consonants, correspond to the /⁻/ of the present article. Various resolutions of these problems would give SatT five, six or seven tone phonemes. Slightly different tonal shapes and a separation of my /[^]/ into an upper and lower tone are given in Brown 1965:134 (This may be due to a generation difference: my principal informant told me that the younger generation "correct" their tones in the direction of Songkhla). In technical-comparatist terms the problem here is that of establishing on a phonetic and phonemic level whether there is a 1/23 split (see §7 below). Such a split seems to be present phonetically in almost all the south and in much of Lao, and always the problem of phonemic proof by minimal pairs (which comparatist wordlists are not designed to elicit) arises. Tone inventories indicating a 1/23 split for various Pak Tai dialects, but unsupported by minimal pairs, are to be found in Panupong 1972, Piyatham n.d. and Chittham 1970, n.d. (these three being by native speakers), Miller 1956, Egerod 1962 and Brown 1965. Indeed, Piyatham n.d.'s Table 3.1 explicitly shows that the tones of Row 23 are in complementary distribution with those of both Row 1 and 4--the situation Haudricourt 1972 describes by referring to the tones of Row 23 as "architomes".

- 6 For the historical-comparative categories which these tone phonemes represent see §7 below and compare Haas 1958, Henderson 1959, Egerod 1962 and Brown 1965.
- 7 For some idea of the intricate dependence of fine pitch differences on initials, finals and vowel length, see Miller 1956: 256-258.
- 8 For examples of instrumentally established sandhi-tones in Songkhla dialect see tones 8 and 9 of Panupong 1972. Tone-sandhi is a very marked feature in most of southern Thai, much more so than in ST.
- 9 SM forms are cited in the orthography of Winstedt's various dictionaries. Further checking of the exact segmental shape of some of the SatM forms is necessary. They are omitted where the writer is doubtful. ST forms are cited in the Haas transcription.
- 10 This is, of course, an over-simplification and misleading as well. The tones following each Row of initials had been already differentiated phonetically before the devoicing, but these differences had been sub-phonemic, entirely conditioned by the Row-membership of the initial. Now, with mergers among these initials (and the devoicing of Row 4 obstruents was not the only merger), these allophonic differences of pitch became phonemic. For more details Haudricourt 1972.
- 11 Although there are numerous exceptions, the productive rules for assignment of tones to borrowings into ST from non-tonal languages seem to be as follows: (1) high tone for dead syllables, (2) falling tone for live syllables which are final in a polysyllable and not themselves free forms (i.e., *not* themselves monosyllables), (3) mid tone elsewhere, i.e., in monosyllables, whether occurring alone or included in polysyllables, and non-finally in polysyllables. It is uncertain whether these assignments are based on genuine auditory perception or reflect a conventionalized ST reading pronunciation of roman orthography, for, in Trubetzkoyan terms, the falling tone in borrowed words has a special *stylistic* function, as well as *distinctive* and *delimitative* functions. The distinctive function--the basic function of tones--is to be clearly seen in a pair of words such as /ra:mâ:/ (name of the Hyatt-Rama Hotel in Bangkok) vs. /ra:ma:/ (popular abbreviation of name of Ramathibodi Hospital). The delimitative function consists in the fact that it marks the *final* syllable of a particular kind of entity. The stylistic function is that of marking a word as (+foreign) but (-intended to show the speaker's superiority in learning), as against an authentic foreign pronunciation, which, if both speaker and listener are Thai, would probably have a plus value for the second feature.
- 12 As expressed in Gedney In Press. The present popularity of falling tone on the final syllable of borrowed polysyllables in ST may well be a *fashion* phenomenon. We can see what is probably the result of an earlier fashion phenomenon in the series of words of largely

Indo-Persian origin which have on their final syllable low tone in pronunciation and "mid" or "high" initials and mai_ek orthographically: e.g., /kuraʔà:n, suràw, imàm, karlì:, mắtsamàn, irà:n, khà:n, saràn, alày/ and probably also /burì:, sabù:/.

- 13 and, interestingly enough, with the tonalism of a group of proto-Tai words which have possible cognates in Austronesian: see Gedney In Press, quoting Benedict 1942:598.
- 14 It seems to me that Chamberlain's attempt to piece together linguistic and non-linguistic data on the South-Western Tai languages and their speech communities has a value which does not entirely depend on the correctness of his assumption of the unity of these languages at the time of the Great Transphonologization. If his assumption is wrong then his language groupings are not genetic but *typological*, but as such they represent *possible geographical contiguity* (possible *sprachbünde*) at the time of this soundshift, and this is surely significant. Furthermore, once we see his groupings in this light we are free to add *non-Tai* languages to his groupings as possible neighbours at the time of the soundshift. Thus we can add the Hakka dialect of Chinese to his PH group and Khmer, Vietnamese and most of Miao-Yao and most of Karen to his P group. We may note further that Malay, Burmese, some Karen and some Miao did not participate in it at all, and that Cantonese represents a type intermediate between his P and PH types (viz. a PH~P type, of which Mandarin offers another variant), Mon another (viz. a P~B type, cf. Wu Chinese PH~B, PH~BH), while a Central Tai language, Tho of Cao Bang, actually retains the voicing of the "low" stops (Haudricourt 1972:65).
- 15 Loanwords from Indic and Khmer, as well as some from Malay (for which see below) are treated just like inherited words and subjected to the Transphonologization with the results normal to each particular dialect. Thus they most probably entered the dialects before the soundshift. For a discussion of the pronunciation of Indic loanwords in various S.-E. Asian languages (but not Malay) see Henderson 1951.
- 16 For a discussion of Tai loanwords in Khmu see Gedney 1965.
- 17 To the testimony of loanwords on the relative chronology of soundshift and culture contacts we may add the conclusions of Brown 1965 based on a comparative study of 70-odd South-Western Tai dialects: the transphonologization did not take place till after the breakup of "Ancient Thai" (Brown's analogue of proto-South-Western Tai), happening in different forms and at different times in the various branches; having provided a relative chronology of developments he hazards what he calls "best guesses" at an absolute chronology:--he considers that in southern Thai the devoicing of initial obstruents took place some time between 1250 and 1450. Another soundshift, proposed by Brown 1965 and relevant to the current question, is the denasalization of the postulated old pre-

glottalized nasals *ʔm-, *ʔn-> (modern) /b-, d-/ which Brown puts between 1450 and 1600 in the line of descent of SatT (1965:116). This represents the time at which modern SatT /b, d/ would have become available for representing Malay /b, d/ (see §8.3 below). Brown's dates for these soundshifts fit in perfectly well with the two strata of Malay loanwords in southern Thai. See also Brown 1966 and Brown (this volume).

- 18 Noteworthy in this connection is the suggestion that even the Rama epic entered Thailand by this route (Phongphaiboon 1969:97. cf. Schweisguth 1951:65). There remains however one small problem: words from Javanese which are spelled in Thai with the B-class tone marker, mai ek, e.g., ระเด่น ST /radèn/. In almost all Pak Tai dialects today the difference between A-column tones and B-column tones has been lost after "high" and "mid" initials. Why then bother to put in a graphic mark which has no effect? We should here first of all make the obvious comparison with the loans of Indo-Persian origin mentioned in fn. 12 above (these too may very well have come into ST though Pak Tai). One possible answer to this question is that the loss of contrast between these two categories of tone in southern Thai had not yet occurred when the Inao stories were first rendered into Southern Thai--another intertwining of loanword tonalization, phonological history and general cultural history.
- 19 For central Thai we have the evidence of the transcription of Thai words in European historical documents of the Ayuthaya period. The writer hopes to examine these in detail on a future occasion. In the meantime the "b" in *berquelang* (พระคลัง, ST /phráʔ khláŋ/) from a Dutch late-Ayuthaya document (see Boeles 1968: 107) is certainly suggestive. We may also expect more light to be shed on the question of the chronology of the Great Transphologization by the facts of Thai versification and the technical details of application of the various Tai scripts (see Gedney 1967:793-795).
- 20 For a recent review of the question presenting the views of Haudricourt and Benedict see Matisoff 1973. Benedict's views are criticized in Gedney In Press.
- 21 It is noteworthy that no comparable shift has taken place on the Pattani side of the Peninsula, where the local dialect of Malay remains in full vigour, southern Thai is disliked, and if any form of Thai is learned it is ST via the schools.

REFERENCES

- Boeles, J. J. 1968. "Note on an Eye-witness Account in Dutch of the Destruction of Ayudhaya in 1668." *Journal of the Siam Society*. 51:1.

- Brown, J. Marvin. 1965. *From Ancient Thai to Modern Dialects*. Bangkok.
- _____. 1966. "The Language of Sukhothai: Where Did it Come From? and Where Did it Go?", *Social Science Review* (special issue).
- _____. 1974. "The Great Tone Split: Did it Work in Opposite Ways?" (in the present volume).
- Chamberlain, James, R. 1972. "The Origin of the Southwestern Tai." *Bulletin des Amis du Royaume Lao* 7-8.
- _____. 1974. "Tone System Patterns and the Classification of Tai Languages: How Reliable are They?" Paper read at the Tai Linguistics Symposium, Mahidol University, Bangkok, April 16-26, 1974.
- Chantavibulaya, Vichintana. 1959. *The Phonology of the Syllable in Songkhla, a Southern Thai Dialect*. Thesis submitted for the degree of Master of Arts of the University of London. (Author is same person as Vichin Panupong, q.v.)
- Chittham, Phinyo. 1970. "pha:sǎ: thìn" ('Dialects'. In Thai.) Songkhla.
- _____. n.d. "ka:n kla:y sǎŋ wannayúk pha:sǎ thìn sǎŋkhǎ:." ('The development of the tones of Songkhla dialect'. In Thai) Paper read at the Thai Phonetics Conference, May 17-22, 1971, at Mahidol University, Bangkok. Roneoed preprint.
- Egerod, Søren. 1962. "Studies in Thai Dialectology." *Acta Orientalia* 26.
- Gedney, William J. 1967. "Thailand and Laos" in *Current Trends in Linguistics*. Volume II. *Linguistics in East Asia and South East Asia*. Edited by Thomas A. Sebeok. The Hague.
- _____. 1965. "Old Tai Loanwords in Khmu?" Paper read at the Linguistic Society of America meeting, July 30-31, 1965.
- _____. In press. "Future Directions in Comparative Tai Linguistics." *Journal of the American Oriental Society*.
- Haas, Mary R. 1958. "The Tones of Four Thai Dialects." *Bulletin of the Institute of History and Philology, Academia Sinica* 29.
- Harris, Jimmy G. and Noss, Richard B. eds. 1972. *Tai Phonetics and Phonology*.
- Haudricourt, André-G. 1972. "Two-way and Three-way Splitting of Tonal Systems in Some Far Eastern Languages" in Harris and Noss.
- Henderson, Eugénie A. 1951. "The Phonology of Loanwords in Some South-

East Asian Languages." Transactions of the Philological Society. (1951), 131-158.

_____. 1959. "The Tones of the Dialect of Songkhla." Bulletin of the Institute of History and Philology, Academia Sinica 30.

Matisoff, James A. 1973. "Tonogenesis in Southeast Asia" in Consonant Types and Tone. Southern California Occasional Papers in Linguistics No. 1. Edited by Larry M. Hyman Linguistics Program, University of Southern California, Los Angeles.

Miller, Roy Andrew, 1956. "Phonology of the Thai Dialect of Nakhon Sithammarat", Orbis 5:1.

Panupong, Vichin. 1970. "khô: khít kàw kàp ka:n rîak chî: lé? ka:n bèn àksǎ:n 3 mù:" ('Observations on the names and 3 divisions of the (Thai) consonant letters'. In Thai). English title supplied: "The classification of consonants in Thai", in In memoriam Phya Anuman Rajadhon. Contributions in memory of the Late President of the Siam Society. Edited by Tej Bunnag and Michael Smithies. The Siam Society, Bangkok.

_____. 1972. "lǎksanà? ka:n ò:k sǎŋ khǎ:ŋ kham phû:t nay pha:sǎ: sǎŋkhǎ:", ('The pronunciation characteristics of the word in Songkhla dialect'. In Thai) in Harris and Noss 1972.

Phongphaiboon, Sudhivongs. 1969. "khatì? cha:w bâ:n pàk tâay." ('Southern (Thai) folkways'. In Thai.) Bangkok.

phótcan:núkrom pha:sǎ: thìn tâay. chabàp chûa-khra:w ('Dictionary of the southern (Thai) dialect, Interim edition'. In Thai) Forward dated 1971. Songkhla.

Piyatham, Somchit. 1970. A Feature Approach to the Phonology of Phuket, a Southern Thai Dialect. Thesis submitted for the degree of Master of Philosophy of the University of London.

Schweigsuth, P. 1951. Étude de la Littérature Siamoise. Imprimerie Nationale, Paris.

Teeuw, A. and Wyatt, D. K. 1970. Hikayat Patani: The Story of Patani. Bibliotheca Indonesica. The Hague.