

The Phonology of Samre

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I. Introduction

Samre is a Mon-Khmer language of the Pearic subgroup spoken in Cambodia along the border of Thailand. This paper describes Samre as spoken in Tambon Nonsi, Borai District, Trat Province of Thailand.

Other languages such as Pear, Chong, Angrak and Sa'och are in the Pearic subgroup with Samre (Thomas and Headley 1970), a subgroup also supported by Diffloth (1974) and Huffman (1976). There are approximately 5,000 Pearic speakers in Cambodia (Diffloth 1974). According to Matisoff (1991:219), many languages in this branch are in danger of extinction, a danger reflected in low estimates of the number of speakers: Pear, 1000; Samre, 200; Sa'och, 500; Samray, 2000; and Suoy, 200. This group represents only 0.05 percent of the total (6,789,000) Austroasiatic speakers in Cambodia during the period before the civil war.

Thongkum (1984) accidentally ran across people who spoke Samre while on a survey for a minority language map project in Thailand. She noted at the time that there were about seven or eight Samre families at Ban Mamuang, Bo Rai District, Trat Province. Due to time limitations, the the phonology of the language was based on the 367 words which were collected in two days from two informants so the amount of data is very limited. However, this article does provide us with a rough sketch of the Samre language in Thailand. The most interesting feature of this description of the Samre is my finding that the language is becoming tonal.

My first visit to Ban Mamuang (now in Tambon Nonsi, Bo Rai District) was in August, 1998. When I asked the local officials about the Samre people, they didn't recognize them as such because they mistakenly considered the Samre to be the same as another group of people called the 'Chong (of Trat),'¹ who speak a different language from

Thai but similar to Khmer. I asked them to take me to visit the people and talked with the people. I also took the Samre word lists of Thongkum (1984), and the word lists of Chong in Chantaburi (Huffman 1985) for a rough check. I found that the people are intermingled with the Thai population and have become bilingual. In addition, they often hide their true identity because they are afraid of discrimination by others, or because the Samre are generally very shy.

The children learn Thai at school and refuse to learn the language of their parents because they want to be like the other Thai groups, namely the local Thai (which may be a Central Thai language) and the Northern Thai who have come to live in the villages more recently. Some of the Samre parents say that they were advised by the former Thai teachers not to speak the language with the children; otherwise they could not learn to speak and read Thai well. The Thai language is considered preferable because it has a writing system and it is a dominant language. Thus, most of the Samre use more Thai than their own language. This contributes to the minority group's assimilation to the Thai way of living and speaking and to the decrease in their fluency in their mother tongue.

I had been informed that there are about twenty or thirty people who still use both the Samre language and Thai language within their group. I have made visits to most of them and found that the degree of Samre language ability differs depending on factors such as age, the frequency of use, and their attitude toward preservation the language. Some of them told me that they abandoned the language nearly fifteen to twenty years ago. I don't think that there are more than ten people who can still speak the language fluently, that is, who are able to remember most Samre vocabulary, to pronounce the words with confidence, to communicate with others on all topics, and to tell the stories or explain events fluently. The rest are not fluent, that is, unlike the more fluent group, they forget some words or the percentage of Thai loan words is greater or they are semi-speakers who cannot use the vocabulary

and grammatical structures well enough to communicate. The limited number of the speakers and the restricted domains of usage of the language indicate that the language will be lost very soon.

It is clear that we need much more reliable descriptive and comparative data on specific dialects before we can clarify the language versus dialect problem for the Pearic languages. Realizing that the Samre speakers left in Thailand are disappearing — only part of the elder generation 60 years old or older can speak fluently — I have decided to do my Ph.D. dissertation on the Samre grammar in order to provide useful data for further synchronic and diachronic studies on the Pearic languages. In order to share the data with other scholars at the Southeast Asia Linguistic Society conference, a preliminary phonological analysis of the Samre has been written based on a corpus of about 2,800 words, which were recorded on tape and transcribed. Some problems remain unsolved. This paper is presented as an initial step toward solving one of the problems: is tonogenesis occurring or not?

II. Phonological Analysis

1. Word and Syllable Structure

Samre has a typical Mon-Khmer syllable and word structure, which can be summarized as:

$$(C_1 V_1 (C_2)). ' C_3 (C_4) V_2 (C_5)^{T(one)}$$

The above syllable structure suggests the existence of minor and major syllables as two syllable types in Samre.

The minor syllables are always unstressed and the pitch level is neutral. Most of them are the first syllable of a disyllabic word, consisting of C_1 which is almost always a stop, but /m/, /l/ or /s/ have been found too. It should be noted here that there are many cases of fluctuation among the phonemes which occur in this position. For example, /s/ or /kh/ or /th/ as in /sanii^C/ or /khanii^C/ or /thanii^C/ 'sun, day'; /l/ or /k/ as in /lahaan^C/ or /kahaan^C/ 'stiff'; /c/ or /ch/ as in /camoh^B/ or /chamoh^B/ 'name'; /s/ or /k/ or /t/

as in /sapaŋ^C/ or /kapaŋ^C/ or /tapaŋ^C/ ‘swamp’. V₁ is a short, somewhat colourless vowel, usually [a] but often tending toward [ə]. C₂ is most often a nasal either /m/, /n/ or /ŋ/ and sometimes /p/ or /w/ have been found too (as in /sapaŋ^B/ ‘to have a cold’ and /cawsuut^C/ ‘bear’).

The major syllable (either a word or a syllable) is always stressed. It begins with C₃ in which any consonant phoneme can occur. C₄ are often liquids /l/ or /ɭ/ while C₃ (a stop, a nasal, or sometimes /s/) occurs in this position too. V₂ may be long or short or may be a diphthong. C₅ are the set of final consonants, which are optional.

Some words provide evidence that there is a Samre tendency toward becoming monosyllabic. Many of the minor syllables of disyllabic words may be reduced to syllabic nasals, such as /maluəŋ^B/ or /mluəŋ^B/ ‘man’; /kancuɯɯ^B/ or /ncuɯɯ^B/ ‘needle’; /təŋkɿaan^A/ or /ŋkɿaan^A/ ‘fire-place’, which increases the number of initial clusters. Moreover, it may also be deleted in some words, such as /samaaŋ^C/ or /maaŋ^C/ ‘caper’; /kuŋwiək^C/ or /wiək^C/ ‘millipede’.

2. Consonants

Samre has 21 single consonant phonemes as shown in the following chart. All of them can occur as initial consonants; only those preceded by a hyphen can also occur finally.

-p	-t	-c	-k	-ʔ
ph	th	ch	kh	
b	d			
-m	-n	-ɲ	-ŋ	
	s			-h
	l			
	-ɭ			
-w		-j		

Notes on the consonants:

/p/ is realized as [p] - A voiceless unaspirated bilabial stop occurring initially and or finally, e.g. /paan^A/ [paan³²] ‘flower’; /chap^A/ [c^hap³⁴] ‘to catch’.

/ph/ is realized as [p^h] - A voiceless aspirated bilabial stop occurring syllable initially, e.g. /phic^A/ [p^hic³⁴] 'to put out a fire'.

/b/ is realized as [b] - A voiced bilabial stop only occurring syllable initially, e.g. /bɔɔk^A/ [bɔɔk³³] 'to peel'.

/t/ is realized as [t] - A voiceless unaspirated apico-alveolar stop, occurring syllable-initially or finally, e.g. /tɔŋ^A/ [tɔŋ³²] 'house'; /piit^A/ [piit³³] 'knife'.

/th/ is realized as [t^h] - A voiceless aspirated apico-alveolar stop only occurring syllable-initially, e.g. /thum^A/ [t^hum³²] 'to cook'.

/d/ is realized as [d] - A voiced apico-alveolar stop only occurring in the initial position of the syllable, e.g. /duuŋ^A/ [duuŋ³²] 'coconut'.

/c/ is realized as [c] - A voiceless unaspirated alveolar-prepalatal stop occurring syllable-initially or finally, e.g. /cam^A/ [cam³²] 'to wait for'; /kic^A/ [kic³⁴] 'small, little'.

/ch/ is realized as [c^h] - A voiceless aspirated alveolar-prepalatal stop only occurring syllable initially, e.g. /chaan^C/ [c^haan⁴⁵¹] 'cool'.

/k/ is realized as [k] - A voiceless unaspirated dorso-velar stop occurring syllable-initially or finally, e.g. /kuək^A/ [kuək³⁴] 'neck'; /kuk^A/ [kuk³⁴] 'to steal'.

/kh/ is realized as [k^h] - A voiceless aspirated dorso-velar stop only occurring syllable-initially, e.g. /khum^A/ [k^hum³²] 'insect'.

/ʔ/ is realized as [ʔ] - A voiceless glottal stop occurring syllable-initially and medially, e.g. /ʔuək^C/ [ʔuək³⁴²] 'to give'. Final [-ʔ] is very restricted and most of examples of it are in loan words from Thai but they are pronounced differently, such as /pɔʔ^A/ 'father'; /mɛʔ^A/ 'mother', while they are [p^hɔʔ^l] and [mɛʔ^l] in Thai. The Samre words are /khuuŋ^A/ and /mijŋ^A/, respectively. Some final particles, such as /siʔ^B/ and /thəʔ^B/ are Thai loans.

/m/ is realized as [m] - A voiced bilabial nasal occurring initially or finally, e.g. /mɪn^A/ [mɪn³²] 'mother'; /num^B/ [num²¹] 'year'.

/n/ is realized as [n] - A voiced apico-alveolar nasal occurring initially or finally, e.g. /naŋ^A/ [naŋ³²] 'old'; /ʔan^A/ [ʔan³²] 'this'.

/ɲ/ is realized as [ɲ] - A voiced fronto-palatal nasal occurring syllable-initially or finally, e.g. /ɲai^C/ [ɲai⁴⁵¹] 'to speak'; /meɲ^A/ [meɲ³²] 'beautiful'.

/ŋ/ is realized as [ŋ] - A voiced dorso-velar nasal occurring syllable-initially or finally, e.g. /ŋum^C/ [ŋum⁴⁵¹] 'warm'; /luəŋ^A/ [luəŋ³²] 'banana'.

/s/ is realized as [s] - A voiceless lamino-alveolar fricative only occurring in initial position, e.g. /saap^C/ [saap³⁴²] 'light, clear.' This phoneme may fluctuate with [t^h] - a voiceless aspirated apico-alveolar stop when followed by /ɪ/ and a short vowel as in [kasayah³⁴] or [kat^hyah³⁴] 'nail'; [syəŋ²¹] or [t^hyəŋ²¹] 'pole'; [syuŋ²¹] or [t^hyuŋ²¹] 'pen' (for pig).

/h/ is realized as [h] - A voiceless glottal fricative occurring syllable-initially or finally, e.g. /haam^C/ [haam⁴⁵¹] 'blood'; /pih^A/ [pih³⁴] 'disappear'.

/l/ is realized as [l] - A voiced apico-alveolar lateral only occurring initially, e.g. /luəm^B/ [luəm²¹] 'liver'.

/ɹ/ is realized as [ɹ] - A voiced alveolar approximant. The allophone [ɹ] fluctuates with [ɣ], a voiced velar fricative, in all positions except for final position when it follows a low central unrounded vowel either /a/ or /aa/, where is realized as [uɹ], a central semi vowel, as in /maɑɹ^A/ [maauɹ³²] 'field'; /thaɹ^A/ [thauɹ³²] 'cloth'. Examples for other positions are /ɹaəŋ^B/ [ɹaəŋ²¹] or [ɣaəŋ²¹] 'to carry (a dead body)'; /tiɹ^B/ [tiɹ²²] or [tiɣ²²] 'to crow'. It should be noted that the allophone [ɣ] is a harsh accent which is most pronounced in the elder generation of the speakers whose language ability is better than the younger group. The [ɣ]

seems to be closer to the original sound of Samre than the [ɿ] as I was informed that it is a sound unique to Samre. Even when the Samre people speak Thai, their pronunciation seems to echo their mother tongue, such as in the Thai word [ʔaʔraj] ‘what’ which may be pronounced [ʔayaʔ⁴⁵¹] by Samre speakers and their descendants who have been influenced by this sound even in those groups who are no longer able to speak the Samre language. On the other hand, the allophone [ɿ] is a tender accent which some of the speakers feel makes the language sound more beautiful. The younger generation tends use this pronunciation and some of them sometimes substitute a voiced trill [r] for this sound under the influence of Thai.

/w/ is realized as [w] - A voiced labio-velar approximant occurring syllable-initially or finally, e.g. /waa^A/ [waa³²] ‘monkey’; /saw^A/ [saw³²] ‘to be left over’. The voiced labio-dental approximant [ʋ] is an allophone which may occur in free variation with [w] in initial position, e.g. [wəj³²] or [ʋəj³²] ‘to beat.’

/j/ is realized as [j] - A voiced palatal approximant occurring syllable-initially or finally, e.g. /jək^A/ [jək³⁴] ‘milk’; /wəj^A/ [wəj³²] ‘to beat’.

The C₃C₄ consonant clusters consist of:

C ₃ C ₄	Examples		C ₃ C ₄	examples	
pɿ	/pɿiɿ ^A /	‘forest’	tɿ	/truəj ^A /	‘cow, ox’
cɿ	/cɿiəŋ ^A /	‘ring’	kɿ	/kɿic ^A /	‘breast, chest’
phɿ	/phɿii ^A /	‘fruit’	thɿ	/thɿaa ^C /	‘guava’
khɿ	/khɿaaŋ ^B /	‘alcohol’	mɿ	/mɿec ^B /	‘pepper’
ŋɿ	/ŋɿɔɔp ^B /	‘a lid’	sɿ	/sɿɔk ^B /	‘pig’
pl	/pliɿw ^A /	‘fire’	phl	/phliim ^C /	‘land leech’
kl	/kloŋ ^A /	‘rice’	khl	/khlaa ^C /	‘leaf’
mp	/mpɔŋ ^C /	‘vegetable’	ml	/mluəŋ ^B /	‘man’
mpl	/mpləəŋ ^A /	‘gun’	mph	/mphaa ^A /	‘trionyx’
nt	/ntaa ^A /	‘spinach’	nd	/nduəŋ ^A /	‘a well’
nc	/ncuɯɯ ^B /	‘needle’	nj	/njuɯɯ ^A /	‘cradle’
ŋk	/ŋkaap ^B /	‘yawn’	nl	/nlɔɔj ^C /	‘a kind of areca nut’

Others are found in Thai loan words, for instance, kw /kwaan^B/ 'wide': khw /khwaan^A/ 'to obstruct', etc.

3. Vowels

Samre has nine short vowel qualities, nine long vowels, and three diphthongs:

Vowel table.

Simple vowels	Short vowels			Long vowels		
	i	u	u	ii	uuu	uu
	e	ə	o	ee	əə	oo
	ɛ	a	ɔ	ɛɛ	aa	ɔɔ
Diphthongs	iə		uə	uə		

Notes on the vowels:

Simple vowels:

/i/ is realized as [i] - A high front unrounded short vowel, e.g. /tim^A/ [tim³²] 'to soak a slip'.

/ii/ is realized as [ii] - A high front unrounded long vowel, e.g. /tiim^A/ [tiim³²] 'roof'.

/e/ is realized as [e] - A mid front unrounded short vowel, e.g. /sɛp^A/ [sɛp³²] 'a chop'.

/ee/ is realized as [ee] - A mid front unrounded long vowel, e.g. /sɛe^A/ [sɛe³²] 'a cleared forest'.

/ɛ/ is realized as [ɛ] - A low front unrounded short vowel, e.g. /kɛc^A/ [kɛc³⁴] 'broken'.

/ɛɛ/ is realized as [ɛɛ] - A low front unrounded long vowel, e.g. /kɛɛ^A/ [kɛɛ³²] 'kick'.

/u/ is realized as [u] - A high central unrounded short vowel, e.g. /luuk^B/ [luuk²²] 'classifier for time'.

/uuu/ is realized as [uuu] - A high central unrounded long vowel, e.g. /luuu^A/ [luuu³²] 'blunt.' Long /uuu/ is very

restricted, occurring only in open syllables or in loan words from Thai, such as /klur^Cun/ 'wave'.

/ə/ is realized as [ə] - A mid central unrounded short vowel, e.g. /thən^C/ [t^hən⁴⁵¹] 'just'.

/əə/ is realized as [əə] - A mid central unrounded long vowel, e.g. /təəŋ^A/ [təəŋ³²] 'to throw'.

/a/ is realized as [a] - A low central unrounded short vowel, e.g. /ʔaw^A/ [ʔaw³²] 'shirt'.

/aa/ is realized as [aa] - A low central unrounded long vowel, e.g. /ʔaaw^A/ [ʔaaw³²] 'day'.

/u/ is realized as [u] - A high back rounded short vowel, e.g. /luj^C/ [luj⁴⁵¹] 'point'.

/uu/ is realized as [uu] - A high back rounded long vowel, e.g. /luuj^C/ [luuj⁴⁵¹] 'earth worm'.

/o/ is realized as [o] - A mid back rounded short vowel, e.g. /poŋ^C/ [poŋ⁴⁵¹] 'to rock a cradle'.

/oo/ is realized as [oo] - A mid back rounded long vowel, e.g. /poon^C/ [poon⁴⁵¹] 'distended, inflated'.

/ɔ/ is realized as [ɔɔ] - A low back rounded short vowel, e.g. /klɔŋ^B/ [klɔŋ²¹] 'to call out'.

/ɔɔ/ is realized as [ɔɔ] - A low back rounded long vowel, e.g. /klɔɔŋ^B/ [klɔɔŋ²¹] 'half-milled rice'.

Diphthongs:

There are three diphthongs: /iə, uə, uə/ which are high vowels /i, u, u/ gliding to [ə] schwa.

/iə/ is realized as [iə] e.g. /khiəŋ^C/ [k^hɣiəŋ⁴⁵¹] 'strips of split bamboo'.

/uə/ is realized as [uə] e.g. /khuəŋ^C/ [k^hɣuəŋ³⁵¹] 'apparatus, utensil, machine'.

/uə/ is realized as [uə] e.g. /khuən^C/ [k^huən³] 'rat'.

4. Suprasegmental Features in Samre

Samre is a language with a basic system of contrastive tones and a secondary system of non-

contrastive voice qualities. Ohala (1978:6) dates do not match gives the following definition of pitch:

I use the term "pitch" and "fundamental frequency" (F_0) interchangeably. Both will be taken to mean the rate of vibration of the vocal cords during voice production. When quantified, the units are hertz (Hz). Some cases of tonal contrasts which linguists have described apparently include the distinctive use of other phonetic parameters besides pitch, for example, duration, voice quality, manner of tone offset, and vowel quality.

Phonetically, in the process of voice production, pitch and voice quality usually occur in sequences that are hard to discriminate from each other. When classifying languages, we consider the phonemically most significant feature the primary feature for labelling the language type. In most Mon-Khmer languages, the phonation types or register complexes are generally considered the most significant features and thus most Mon-Khmer languages are known as register languages. Many dialects of Chong in Chantaburi still have primary contrastive register complexes varying from three or four types together with accompanying phonetic pitches (Huffman 1985 and Suphanphaiboon 1982). Thongkum (1988:319) indicates that most of the Mon-Khmer languages have at least the breathy voice quality and the clear (normal, modal) voice contrast, such as Phalok, Wa, Chong, Mon, Bru, Kui, So, Nyah Kur, and Thung Kabin Khmer. We assume that the register complex is inherited from the proto-language.

Samre may have originally used the breathy voice quality as phonological contrast, but since the Samre have come into contact with the Thai people, they have changed the nature of the original contrast. The result of this study shows that Samre in Thailand is at present in a transition stage, developing into a tonal language where pitch is used as the principal component of contrasts (as the pitch itself distinguishes the lexical meanings of words), though breathy voice still occurs in some contexts. For example, residual

breathy voice still occurs in some words for some informants. However, this feature is not consistent, even within the speech of the same person.

4.1 Voice quality

The occurrence of breathy voice is optional and predictable. So breathy voice quality is non-phonemic because in this study it fluctuates with the normal voiced in all syllable types, except for checked syllables with short vowels in which it does not occur at all. Some syllables may be used as a trace for predicting breathy voice, particularly smooth syllables in the mid-low tone, such as [kij²¹] 'malabar ironwood'; [nuj²¹] 'year'; [jaaw²¹] 'scorpion'; [mpuw²¹] 'to wear'; [puəh²¹] 'a kind of insect'. In some group of words, initial clusters of a stop and voiced alveolar approximant /ɹ/ seem to produce this voice quality; for example, [pɹij³²] 'forest'; [syij²¹] 'banyan tree'; [pyaj²¹] 'thread'; [ɲɔɔp²²] 'a lid'; [pyiəŋ⁴⁵¹] 'shoulder'. Moreover, it is often observed in open syllable tone 3 words with the vowel /aa/; for example, [kamaa⁴⁵¹] 'rain'; [sanaa⁴⁵¹] 'squirrel'; [salaə⁴⁵¹] 'thorn'; [lawaa⁴⁵¹] 'a kind of banana.' Some tone C words are loans from Thai, such as [pɔɔ⁴⁵¹] 'enough'; [pɛɛŋ⁴⁵¹] 'expensive'; [cəj⁴⁵¹] 'to return'; [taə⁴⁵¹] 'to challenge'; [keɛp³⁴²] 'narrow'. These are pronounced unlike the original Thai; unaspirated initial stops instead of aspirated stops are used and the breathy voiced quality, which may or may not occur, is added.

Not all speakers produce the phonological contrasts in exactly the same way. The younger generation (50 to 60 years old) tends to lose the breathy voiced quality, while the older generation (over 60 years old) tends to retain it.

4.2 Tones

Three contrastive tones are found in Samre. Each of them has allotones related to vowel length and to the final consonants. Depending on the class of final consonant, syllables can be grouped into two main types: smooth syllables (open syllables and syllables ending in finals other than stops) and checked syllables (syllables ending in final stops).

The numbers at the end of each word describe the phonetic pitch ranges of the tones and allotones. The first

indicates the starting point of the tone and the last
 indicates the ending point of the tone, and the number in
 the middle indicates the pitch level. The pitch levels are
 1 low, 2 mid-low, 3 mid, 4 mid-high, and 5 high.

Phonemic Tone A is a mid level, remaining smooth
 during the whole pattern of the syllable. It starts at the
 mid level, remains mid level, and falls off
 at the end. It is found in /caŋ^A/ [caŋ^A] 'back', /chaa^A/
 [chaa^A] 'to weave', /laa^A/ [laa^A] 'to weave', in
 checked syllables with long vowels and in syllables with
 short vowels ending in final [-h]. It is found in /taak^A/ [taak^A] 'water, wet', /ciih^A/ [ciih^A] 'deer', in
 checked syllables with short vowels and in syllables ending

checked syllables with short vowels and in syllables ending
 in a short vowel and final [-h], the pitch pattern starts mid,
 then glides up to a mid-high [³⁴] as in /jok^A/ [jok³⁴] 'milk';
 /chuuh^A/ [chuuh³⁴] 'old'.

Phonemic Tone B is a mid-low tone. In checked
 syllables (with long or short vowels) and in syllables with a
 short vowel ending in final [-h], the pitch patterns starts
 mid-low and remains mid-low [²²] as in /tək^B/ [tək²²] 'ship';
 /wiit^B/ [wiit²²] 'green'; /ləh^B/ [ləh²²] 'to climb down'. But in
 smooth syllables, the pitch pattern starts mid-low, and falls
 to low [²¹] as in /suəŋ^B/ [suəŋ²¹] 'to smell'; /laa^B/ [laa²¹]
 'evening'; /can^B/ [can²¹] 'to step over.'

Phonemic Tone C is a high falling tone. In smooth
 syllables, the pitch pattern starts mid-high, glides up to
 high, then falls to low [⁴⁵¹] as in /suəŋ^C/ [suəŋ⁴⁵¹] 'to tell';
 /chəŋ^C/ [chəŋ⁴⁵¹] 'dog'; /luj^C/ [luj⁴⁵¹] 'point'. In checked
 syllables with long vowels and in syllables with a long
 vowel syllable ending in final [-h], the pitch pattern starts
 mid, glides up to mid-high, then falls to mid-low [³⁴²] as in
 /taak^C/ [taak³⁴²] 'water, wet'; /ciih^C/ [ciih³⁴²] 'deer'. It was
 noticed that this allotone never occurs in checked syllables
 with short vowels.

Examples of the tone contrasts:

In open syllables:

Tone A	Tone B	Tone C
sanaa ^A 'crossbow'	sanaa ^B 'friend'	sanaa ^C 'squirrel'
	jee ^B 'rattan'	jee ^C 'in'
tii ^A 'hand, arm'	tii ^B 'to lance'	
chii ^A 'louse'		chii ^C 'how many'

In smooth syllables with short vowels:

Tone A	Tone B	Tone C
lip ^A 'on, above'	lip ^B 'play'	
	sjaan ^B 'a pole'	sjaŋ ^C 'river bank'
sanam ^A 'medicine'		sanam ^C 'to hear'

In smooth syllables with long vowels:

Tone A	Tone B	Tone C
suəŋ ^A 'to dance'	suəŋ ^B 'to smell'	suəŋ ^C 'tell, reply'
kluəŋ ^A 'bone'	khɤəŋ ^B 'husband'	kluəŋ ^C 'a log'
puun ^A 'scold'	puun ^B 'fill in, carry on end of pole'	
poom ^A 'pester'		poom ^C 'to watch'
chiim ^A 'feed'		chiim ^C 'bird'
khiin ^A 'child'		khiin ^C 'bottle gourd'

In checked syllables with short vowels:

Tone A	Tone B
tɔk ^A 'out'	tɔk ^B 'boat'
pɔk ^A 'wrap'	pɔk ^B 'to peck'
kuɔp ^A 'under'	kuɔp ^B 'body'

In checked syllables with long vowels:

Tone A	Tone B	Tone C
puuc ^A 'put in'	kapuuc ^B 'over- turn'	puuc ^C 'scoop up water; corn (n.)'
paat ^A 'to lick'	paat ^B 'to slice'	paat ^C 'walk past'
	hiək ^B 'torn'	hiək ^C 'hurry'
	suək ^B 'trace'	suək ^C 'mango'
ɽuək ^A 'kind of bird'	ɽuək ^B 'to hide'	
caap ^A 'wash (face)'		caap ^C 'fishy smell'

In syllables ending with -h and preceded by a short vowel:

Tone A	Tone B
pɔh ^A 'ashes'	pɔh ^B 'dry out of water'
tih ^A 'all'	tih ^B 'there'

In syllables with long vowels and ending with -h:

Tone A	Tone C
ɽuuh ^A 'high'	ɽiih ^C 'root'

Thongkum (1984) referred to the suprasegmental distinctive features in the Samre language as tone. Her

conclusions are slightly different from those in this study in that she suggests four contrastive tones while my analysis reveals only three. A comparison of the two analyses of phonemic pitch are presented in the table below.

Comparison of the two tone analyses:

Thongkum's analysis	Results of this study
tone 1 (a mid level tone)	tone A (a mid level tone)
tone 2 (a high falling tone)	tone C (a high falling tone)
tone 3 (a mid-low tone)	tone B (a mid-low tone)
tone 4 (a mid falling tone)	tone C (a high falling tone)

The table merges Thongkum's tone 2 and 4 into one (tone C). Phonetically tones 2 and 4 of Thongkum's analysis seem to have very similar shapes: in a smooth syllable tone 2 is [⁴⁵²] and tone 4 is [³⁴²]. In the data, I can find three-way minimal pair contrasts as in the examples above. So I suggest that there are three tone contrasts in Samre: the mid level tone (A), the mid-low tone (B) and the high falling tone (C).

III. Conclusions

Tonogenesis in the Samre language in Thailand is most likely due to language contact with Thai. There are two main subgroups of the Thai speakers living in the same villages with the Samre: the North-East Thai and the Central Thai. Central Thai seems to have more influence on the Samre than the North-East Thai because the Central Thai are the dominant group in that region of Thailand. As a result, most of the Samre speakers speak Central Thai with the local people and some of them learn the dominant language at school. Besides, the Thai loan words in Samre are the Central Thai, such as /pon^C/ 'mix together'; /cɔɔp^B/ 'to like, love.' Moreover, each tone has the allotones of

which the pitch ranges also seem to be impacted by the syllable structures of Central Thai and, as a result, the tone shapes of the allotones in both languages are quite similar.

Due to language contact with Central Thai, Samre also changes other phonological features, such as the unique sound [ɣ] becomes more like the [r] of Thai. A final glottal stop is added to the consonant inventory though it was not found in Thongkum (1984). The three-way contrast of the diphthongs /iə, uə, uə/ is very similar to Central Thai.

The most notable phonological transition in Samre attributable to the influence of Central Thai is contrastive tone. As a result, the distinctive breathy voice quality (an inherited feature of Samre) has become less significant.

Papers about the Pearic branch are scarce and the details about subgrouping this branch remain unclear. Many subgrouping questions remain: Which groups of the Pear in Cambodia are more closely related to the Samre in Thailand? What are the differences between the Samre and the Chong of Trat, who are referred to by the Samre and by the people themselves as 'Kasong'? The data on the Samre of Thailand presented here are a resource for beginning the comparative study leading to a more precise language classification.

Endnotes

I would like to thank Dr. Suwilai Premasirat for her advice and feedback and also Dr. David Thomas for his feedback. Finally I would like to acknowledge financial support from the Faculty of Graduate Studies, Mahidol University which enabled me to present this paper at the ninth SEALS conference.

¹ This group of people live mostly in Tambon Dan Chumphon, Bo Rai District. They call themselves "Kasong" and their language was recorded by Isarangura (1935).

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