

## An analysis of Muak Sa-aak tone

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### Background:

Also known as Tai Loi

Classified as Austroasiatic, Mon-Khmer, Northern Mon-Khmer, Palaungic, Eastern Palaungic, Angkuic

Located in Eastern Shan State, Myanmar, and in China.

Documentation: articles by Svantesson: on Hu (1991) and U (1988)

### Characteristics of Angkuic languages:

- “Germanic” shift:
  - Proto-voiceless initial stops >> aspirated;
  - Proto-voiced initials >> voiceless.
- Retention of proto h- and s- distinction.
- Hu, U: tone; no contrastive vowel length.
- Tonogenesis linked to loss of contrastive vowel length.

### Muak Sa-aak segmental phonology:

#### Initial consonants:

	Labial	Alveolar	Pre-palatal	Post-palatal
Stop	b p p <sup>h</sup>	d t t <sup>h</sup>	c c <sup>h</sup>	k k <sup>h</sup>
Nasal	m	n	ɲ	ŋ
Fricative	f	s		h
Approximant	w	l, r	j	

Final consonants: /p, t, c, k, m, n, ɲ, ŋ, w, j, l/

#### Vowels:

	Front	Back unrounded	Back rounded
Close	i i:	ɯ ɯ:	u u:
Close-mid	e e:	ɤ ɤ:	o o:
Open	ɛ ia	a a:	ɔ ua

### Tones:

- Voice quality is an accompanying feature of tone.
- Tone does not carry a high functional load.
- Restriction on occurrence of tones according to syllable structure.

*Tone 1:* low tone; accompanying stiff voice.

Occurs with: checked long syllables (final p, t, c, k), open syllables, and sonorant finals (m, n, ɲ, j, w, l) regardless of vowel length.

**Tone 2: high constricted tone**

1. High allotone in short syllables; modal voice. Occurs with: short open syllables; short checked syllables (final p, t, c, k).
2. Falling allotone in long syllables; creaky. Occurs with: long open syllables, sonorant-final syllables (final m, n, ŋ, j, w, l).

**Tone 3: falling tone; modal voice**

Occurs with: long open syllables, sonorant-final syllables (m, n, ŋ, j, w, l).

**Examples for tone and syllable structure:**

	Tone 1 (low)		Tone 2 (high constricted)		Tone 3 (high falling)	
CVS	<i>pɔl<sup>1</sup></i>	“fall”	<i>kan<sup>2</sup></i>	“be defeated”*	<i>kam<sup>3</sup></i>	“language”
CCVS	<i>k<sup>h</sup>u:<sup>3</sup> kran<sup>1</sup></i>	“lazy”	<i>p<sup>h</sup>rɔŋ<sup>2</sup></i>	“clam”	<i>preŋ<sup>3</sup></i>	“head”
CVVS	<i>kɔ:n<sup>1</sup></i>	“before”*	<i>kuəŋ<sup>2</sup></i>	“bottle”	<i>ka:ŋ<sup>3</sup></i>	“house”
CCVVS	<i>kɔɔ:n<sup>1</sup></i>	“lying down”	<i>k<sup>h</sup>ruan<sup>2</sup></i>	“gather”	<i>kri:l<sup>3</sup></i>	“skinny”
CVP		--	<i>kat<sup>2</sup></i>	“burn”		--
CCVP		--	<i>preɫ<sup>2</sup></i>	“lick”		--
CVVP	<i>ka:t<sup>1</sup></i>	“fasten”		--		--
CCVVP	<i>t.pru:t<sup>1</sup></i>	“swallow”		--		--
CV		--	<i>ke<sup>2</sup></i>	“they (3PL)”		--
CCV		--	<i>kra<sup>2</sup></i>	“stir”		--
CVV	<i>ke:<sup>1</sup></i>	“pour”	<i>pɔ:<sup>1</sup> ka:<sup>2</sup></i>	“trader”	<i>ka:<sup>3</sup></i>	“pack (v)”
CCVV	<i>pra:<sup>1</sup></i>	“split open”		---	<i>kra:<sup>3</sup></i>	“mat”

**Correlation of tone and syllable type:**

Syllable type	Tone 1 Low stiff	Constricted Tone 2		Tone 3 High-falling modal
		High modal	High-falling creaky	
short open, short checked		X		
long checked	X			
long open, long smooth	X		X	X

### **Tonogenesis in Angkuic languages:**

- In Hu, U, tonogenesis linked to loss of contrastive vowel length.
- Muak Sa-aak has tone- but retains vowel length contrast.
- 3 factors involved in Muak Sa-aak tonogenesis:
  - loss of some final consonants
  - borrowing
  - vowel length

### **Muak Sa-aak tonogenesis:**

Compared Muak Sa-aak data with Lamet data (Svantesson 1988) which preserves vowel length contrast.

- *Final sonorants*: Have maintained contrastive vowel length; developed falling Tone 3, with modal voice. This does not account for the minority of sonorant final words with Tone 1 or 2.
- *Glottal stop finals*: These have all become the high allotone of checked Tone 2. Regardless of vowel length in Lamet data, in Muak Sa-aak, all are short.
- *Final stops /p, t, c, k/*: If short vowel, these are the short high allotone of Tone 2; if long vowel, these are Tone 1 (long).
- *\*-h, \*-s*: These appear to have become low Tone 1, but are now open syllables in Muak Sa-aak, since these finals no longer exist.
- *Falling allotone of Tone 2*: Only 1 in 10 of Tone 2; most do not match up to the Lamet data. Most borrowed from Tai Lue, and usually have a glottalized tone in Tai Lue.

### **Conclusion**

- Setting aside syllable structures heavily influenced by borrowing or by the loss of the \*-h and \*-s finals:
  - Three pitches remain, for three syllable structures. Therefore: pitch is a function of vowel length, and syllable coda.

### **References**

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