

Tonogenesis in Khmu Dialects of SEA

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This paper is a part of a larger on-going research project entitled “Thesaurus of Khmu Dialects in SEA”. It is a three year project supported by SEASREP (Southeast Asian Studies Regional Exchange Program). The project covers the study of major Khmu dialects in Thailand, Laos, Vietnam and South China. Seven dialects have been selected to study. About 4000 words, which are both basic and culturally specific words in Khmu, were arranged into semantic fields that were sufficient to reflect the Khmu worldview, were collected. The major syntactic patterns and folktales of each dialect were also collected. This year is the last year of the project. Some findings are revealing, such as the development of tones or tonogenesis in Khmu.

Tonogenesis is one of the most interesting linguistic phenomena in Southeast Asia today. It is quite obvious that most of the small minority languages in SEA are now undergoing prosodic changes in the direction of the development of tones. Not only are the Sino-Tibetan or Tai-Kadai languages tone languages, as is generally known, but languages in other language families such as Austroasiatic and Austronesian languages that were originally non-tonal are also acquiring tones. A classic example is the tones in Vietnamese. Haudricourt (1954) demonstrated that Vietnamese belonged to Austroasiatic language family though it is now a tone language. Another interesting example is Cham, which was a non-tonal and non-registeral Austronesian language, and which was found to have tone contrasts in Eastern Cham (Blood 1967, Bui Khan The 1981, and Phu Van Han and others 1997) and also register contrast in Western Cham (Friberg and Hor 1973). This papers attempts to investigate the prosodic features

in Khmu dialects in the wide area of SEA which demonstrates different stages of tonogenesis.¹ The data for investigation was drawn from the Thesaurus research project on Khmu Dialects in SEA. The field work for this project was done in the Khmu speaking areas in Thailand, Laos, Vietnam and South China.

1. Background of Khmu.

Khmu is a Mon-Khmer language of the Austroasiatic language family. It is spoken in a wide area of northern SEA which includes parts of Thailand, Laos, Vietnam and South China. In Thailand the Khmu are found mainly in Nan and Chiangrai in the north, including Kancanaburi and Uthaitani in the Central part. In Laos where the majority of the Khmu are, the Khmu are found in eight provinces (Luang Namtha, Udomsaj, Bokaew, Sayaburi, Phongsali, Luang Prabang, Hua phan, and Chiengkhwang). In Vietnam the Khmu are found in Dien Bien Phu and Senla, Laicau province and in Nge-An. In China the Khmu are found in Chiangrung and in Muang La, Sipsongpanna, Yunnan, China. The total population are more than 500,000. In all Khmu areas the Khmu people are found living together with the Tai-speaking groups. For example the Khmu in Thailand live in the same area as the Northern Thai speakers. In Laos, the Khmu live among the Tai Lue, Tai Daeng, Phuen and Lao people. The Khmu in Vietnam live in the same area as the Tai Dam and Tai Siang. And the Khmu in China live with the Tai Lue. Because of the contact with Tai languages which are tonal, the Khmu have unavoidably been exposed to tone influence. From my field work in various Khmu speaking areas, I have found that Khmu dialects in various parts of SEA have a similar basic structure though vocabulary and pronunciation vary. One of the most outstanding variations of Khmu dialects is the differences in the phonological system. Khmu dialects in SEA can be

¹This paper is a further development of a paper presented at SEALS IV in Thailand which deals with Khmu dialects in the north of Thailand.

phonologically divided into two main dialects - which I prefer to call Western and Eastern Khmu instead of Northern and Southern Khmu, as they are called by Svantesson (1984) and others because this corresponds more to the geographical reality as seen on the map provided below.

2. The Western and Eastern Khmu.

The Western Khmu is comprised of the Khmu dialects spoken in Udomsaj, Bokaew and Luang Namtha in Laos, Chiangrai and Nan in Thailand, and a some villages in Sipsongpanna. The Eastern Khmu is comprised of the Khmu dialect spoken in Huan Phan, Phongsalee, Luang Prabang and Chiengkhwang in Laos, in Dien Bien Phu, Senla, Nghe-An in North Vietnam and some villages in Sipsongpanna. In the homeland of Khmu in Laos, different Khmu dialects have specific names. For Western Khmu they are the Khmu Yuan in Luang Namtha area near Chinese border, Khmu Lue in the North of Udomsaj, Khmu Rook in the central part of Udomsaj and Khmu Khroang in the southern part of Udomsaj or Parkbang area. For Eastern Khmu, they are Khmu Cuang or Khmu VN. The names refers mainly to the name of the rivers in their settlement such as Maekhoang river, Rook and Uu rivers, or refers to the people the Khmu has special relationship with such as the Tai Lue people or Cuang, the Khmu hero. Remnants of all of these Khmu dialects are found in various parts of Thailand. On the border of Thailand and Laos the Khmu Khroang and Khmu Rook are found. In Sipsongpanna area near Laos, both western and eastern Khmu are found.

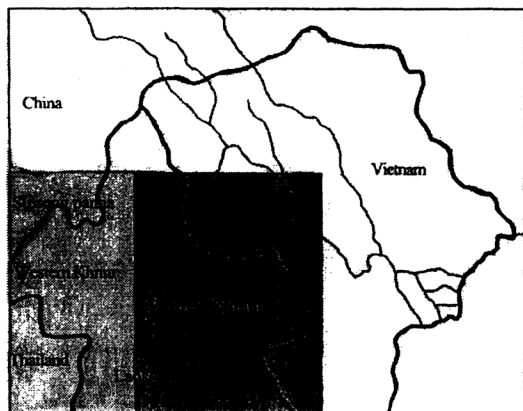


Figure 1. A map shows the Khmu speaking area including the western and eastern Khmu area.

Eastern Khmu dialects are phonologically uniform. They have no tone and no register but have a rich consonant inventory. They have a full set of voiced and voiceless consonants because words are distinguished from each other by the voiced/voiceless contrast of the initial consonants. The western Khmu dialects vary in their prosodic features. They are an excellent example of tonogenesis. Some western Khmu dialects have register contrast whereas some have tone contrast. The following are the phonological systems of the western and eastern Khmu. Each will be presented in terms of consonants, vowels and also suprasegmental phonemes in the case of western dialects.

1. Initial consonants.

The western dialect have 19 initial consonants whereas the eastern dialect have thirty five consonants.

1.1 Western Khmu consonant phonemes.

p	t	c	k	ʔ
p ^h	t ^h	c ^h	k ^h	
b	d			
	s			h
m	n	ɲ	ŋ	
	l			
	r			
w		j		

1.2 Eastern Khmu consonant phonemes

p	t	c	k	ʔ
p ^h	t ^h	c ^h	k ^h	
b	d			
	s			h
m	n	ɲ	ŋ	
^h m	^h n	^h ɲ	^h ŋ	
ʔm	ʔn	ʔɲ		
	l			
	^h l			
	r			
	^h r			
w		j		
^h w		^h j		
		ʔj		

The difference can be explained in terms of the suprasegmental system.

2. Final consonants.

All Khmu dialects have the same system of final consonants. However in some dialects the phonetic final fricative alveolar can vary between *s*, *ç*, and *h*.

p	t	c	k	ʔ
	s			h
m	n	ɲ	ŋ	
	l			
	r			
w		j		

3. *Vowel phonemes.*

All Khmu dialects have the similar vowel phonemes. There are 19 single vowels and three diphthongs. Even though some Khmu dialects have developed voiced quality, the vowels are still the same.

i	i:	ɨ	ɨ:	u	u:
e	e:	ə	ə:	o	o:
ɛ	ɛ:		ʌ:	ɔ	ɔ:
		a	a:		
iə		iə		uə	

4. *Suprasegmental phonemes.*

The eastern Khmu dialects have no tone or register whereas some western Khmu dialects have registers and some have tones.

Eastern Khmu dialects (Dia 1) have the voiced/voiceless distinction of the initial consonant. Examples below illustrate the distinction of both initial stop and continuant consonants.

Table 1. Voiced/voiceless contrast in Eastern Khmu (Dia 1)

1. Stop consonants	
bak	'to ride'
pak	'to break (wood)'
bu:c	'rice wine'
pu:c	'to take off clothes'
bok	'to cut down a tree'
pok	'to take a bite'
bu:m	'to chew'
pu:m	'to fart'
gla:ŋ	'eagle'
kla:ŋ	'stone'
jaŋ	'to weigh'
caŋ	'astringent'
2. Continuant consonants	
ŋɔʔ	'to fear'
^h ŋɔʔ	'paddy rice'
məh	'to be'
^h məh	'what'
ra:ŋ	'flower'
^h ra:ŋ	'tooth'
laʔ	'to go out'
^h laʔ	'leaf'
waʔ	'to chase'
^h waʔ	'monkey'
ja:ŋ	'animal basket'
^h ja:ŋ	'female animal'

In western Khmu dialects the prosodic features become significant instead of voiced/voiceless initial consonant

contrast as in eastern Khmu, the western Khmu can be divided into three types.

1. Western Khmu with register contrast (Dia 2.1)
2. Western Khmu with tone contrast and with aspirated stop as initial consonant (Dia 2.2)
3. Western Khmu dialect with tone contrast (Dia 2.3)

The western Khmu dialects with register contrast (Dia 2.1) is comprised of the Khmu dialects spoken in the northern part of Udomsaj which is called Khmu Lue and the Khmu dialect spoken in the southern part of Udomsaj which is called Khmu Khroang. This type of western Khmu includes the Khmu varieties spoken in Chiengrai (Suwilai 1933) and in Nan (Cholthisa 1988). In this dialect, the word with voiced initial consonant in Dia 1 has become a word with lower pitch and lax/breathy voice quality whereas the word with voiceless initial consonant in Dia 1 has higher pitch and clear tense voice quality as shown in the first column of table 2. Even though the lax register here does not have the strong breathy voice quality as in other Mon-Khmer languages such as Mon, Chong, Kuy or Iduh but it is quite distinctive for the native speakers. My Khmu informants from Chiengrai explain the differences between lax and tense registers as the difference between “big voice” and “small voice”. They always criticize my Khmu as being too clearly voiced when I use mainly the low/high pitch contrast. They can guess the meaning but it is not correct. It is also obvious that when the initial consonant is a stop consonant the breathy voice quality is quite clear. The correct tense register especially in a variety of Khmu Khroang spoken in Chiengrai is very loud and tense. I guess that if the environment allows this sound may be developed into a creaky voice quality as shown in Iduh, a Khmuic language spoken in the same area as the Khmu in Laos and Vietnam. However my informant told me that very often, especially in front of outsiders, they do not make the correct harsh and tense voice because they do not want to be different from Thai speakers. The Western Khmu with tone contrast (Dia 2.3) are found in Luang Namtha (Laos) Sipsongpanna (China) and some villages

in Thailand whereas the tone contrast with voiceless aspirated stop initial (Dia 2.2) is believed to be a step developed after the register contrast. Instead of having voice quality it has the aspiration. According to my own observation and Preedaporn (1987) a Khmu dialect of this type in Thailand had the voice quality before but now the voice quality has disappeared, and has become pure tone contrast.

Table 2. Western Khmu dialects

Gloss	Dia 2.1	Dia 2.2	Dia 2.3
'rice wine'	pɯ:c	phɯ:c	pù:c
'to take off clothes'	pũ:c	pú:c	pû:c
'to cut down a tree'	pɔk	phòk	pòk
'to take a bite'	pók	pók	pók
'to chew'	pɯ:m	phɯ:m	pù:m
'to fart'	pũ:m	pú:m	pû:m
'eagle'	klɔ:ŋ	khlà:ŋ	klà:ŋ
'stone'	klá:ŋ	khlá:ŋ	klá:ŋ
'to weigh'	cɔŋ	chàŋ	càŋ
'astringent'	cáŋ	cán	cán
'to fear'	ŋɔʔ	ŋòʔ	ŋòʔ
'paddy rice'	ŋɔʔ	ŋɔʔ	ŋɔʔ
'to chase'	wɔʔ	wàʔ	wàʔ
'monkey'	wáʔ	wáʔ	wáʔ
'flower'	rɔ:ŋ	rà:ŋ	rà:ŋ
'tooth'	rá:ŋ	rá:ŋ	rá:ŋ
'to be'	məh	məh	məh
'what'	móh	móh	móh

The prosodic situation in Khmu dialects supports Haudricourt's hypothesis on the development of Vietnamese tones (1954). Khmu is an example of a actually real language that shows different stages of tone development from the

'to cut down a tree'	bok	pok	phòk	pòk
'to take a bite'	pok	pók	pók	pók
'to chew'	bu:m	pụ:m	phù:m	pù:m
'to fart'	pu:m	pủ:m	pu:m	pủ:m
'to weigh'	jaŋ	caŋ	chàŋ	càŋ
'astringent'	caŋ	càŋ	càŋ	càŋ
'eagle'	gla:ŋ	kla:ŋ	khla:ŋ	kla:ŋ
'stone'	kla:ŋ	klá:ŋ	klá:ŋ	klá:ŋ

2) Words with syllable-initial continuants ($Vd_{cn} \rightarrow Vl_{cn}$
 γ and $Vl_{cn} \rightarrow Vl_{cn} \hat{v}$)

'to fear'	ŋɔʔ	ŋɔʔ	ŋɔʔ
'paddy rice'	^h ŋɔʔ	ŋɔʔ	ŋɔʔ
'to chase'	waʔ	wəʔ	wəʔ
'monkey'	^h waʔ	wáʔ	wáʔ
'flower'	ra:ŋ	rə:ŋ	rə:ŋ
'tooth'	^h ra:ŋ	rá:ŋ	rá:ŋ

4. Conclusion

Khmu in various part of SEA still has the same basic structure. However, because of contact and relationships with other languages in the same area Khmu may look different in different places. Tonogenesis in western Khmu dialects provides a good example. Different dialects show different stages of tonogenesis. The phenomena proves that Haudricourt's theory of tone development is still valid. However Khmu adds a stage, the register contrast (Dia 2.1), between the first stage which is voiced/voiceless contrast (Dia 1) and the third stage which is tone contrast (Dia 2.2 and 2.3). Moreover the dialect 2.2 also has aspiration at the initial consonant, and shows the remnant of the voice quality appear in Dia 2.1. The phenomenon observed in Khmu also happens in some Mon-Khmer languages.

Bibliography

- Bui Khanh The. 1981. *Về cấu Liếng Cham [On the structure of Cham]*. M.A. Thesis, University of Hanoi, Vietnam.
- Blood, David L. 1967. Phonological unit in Cham. *AL* 908: 15-32.
- Bradley, David. 1982. Register in Burmese. In *Tonation. Papers in Southeast Asian Linguistic*, No. 8. Pacific Linguistics. Series A-No 62, Canberra, Australia.
- Cholthisa Ong-arj. 1988. *A Phonology of Khmu Lue in Nan Province*. M.A. Thesis, Institute of Language and Culture for Rural Development, Mahidol University.
- Delcros, H. 1966. *Petit dictionnaire du language des Khmu de la region de Xieng Khouang*. Mimeo. Vientiane.
- Egerod, S. 1971. Phonation types in Chinese and South East Asian languages. *Acta Linguistica Hafniensia* XIII, 2: 159-171.
- Frank, Proschan. 1989. *Khmu Verbal Art in America: The Poetic of Khmu Verse*. Ph.D. Dissertation, The University of Austin at Texas.
- Friberg, T. and Hor. 1997. Register in Western Cham phonology. In David Thomas, Ernest W. Lee and Nguyen Dan Liem eds., *Cham Studies*. PSEAL 4: 17-38.
- Gandour, J., E. and K. Lindell. 1978. Tones in northern Kammu: A perceptual investigation. *Acta Orientalia* 39: 181-189.
- Garding, E. and K. Lindell. 1977. Tones in northern Kammu: A phonetic investigation. *Acta Orientalia* 38: 321-332.
- Haudricourt, A.G. 1954. De l'origine des tons en vietnamien. *Journal Asiatique* 242: 69-82.
- Henderson, E.J.A. 1982. Tonogenesis: recent speculations. *Transactions of the Philological Society*, pp. 1-24.
- Huffman, Franklin E. Huffman. 1976. The register problem in Fifteen Mon-Khmer Languages. *Austroasiatic Studies Part I*. University of Hawaii Press.
- Lebar, Frank, M. 1965. *The Khmu*. Final Report to National Research Council. Bangkok.

- Lindell, K. 1974. A vocabulary of the Yuan dialect of the Kammu language. *Acta Orientalia* 49: 191-207.
- Lindell, K., Svantesson, J. and D. Tayanin 1981. Phonology of Kammu dialects. *cahiers de linguistique. Asie Orientale* 9: 45-71.
- Matisoff, James A. 1973. Tonogenesis in SEA. In Larry M. Hyman ed., *Consonant Types and Tone*. Southern California paper in Linguistics No.1.
- Phu Van Han, Edmondson J. and K. Gergerson. 1997. Eastern Cham as a tone language. *MKS* 20: 31-43.
- Preedaporn Srisakorn. 1987. *The Sound System of Khmu at Nampan in Nan*. M.A.Thesis, Institute of Language and Culture for Rural Development, Mahidol University.
- Smalley, William. 1961. *Outline of Khmu Structure*. New Haven: American Oriental Society.
- Suksawang Srimana, Somoeng Sayavong and Elizabeth Praisig. 1994. *Khmhu-Lao-French-English Dictionary*. State Printing Enterprise, Lao P.D.R.
- Suwilai Premsrirat. 1998. *Nge-An Khmu-Vietnamese-Thai-English Dictionary*. Institute of Language and Culture for Rural Development, Mahidol University.
- Suwilai Premsrirat. 1997. Phonological variation in Khmu of Northern Thailand. *MKS* 29: 57-69.
- Suwilai Premsrirat. 1993. *Thai-Khmu-English Dictionary*. Institute of Language and Culture for Rural Development, Mahidol University.
- Suwilai Premsrirat. 1992. The Khmu colour system and its elaborations. *MKS* 21: 131-142.
- Suwilai Premsrirat. 1990. *Khmu Traditional Medicine and Khmu-Thai Medical Conversation*. Institute of Language and Culture for Rural Development, Mahidol University.
- Suwilai Premsrirat. 1988. *Khmu Life Styles in 50 Conversation Lessons*. Institute of Language and Culture for Rural Development, Mahidol University.
- Suwilai Premsrirat. 1987. *Khmu, A Minority Language of Thailand*. (A Khmu Grammar and A Study of Thai and Khmu Cutting Words) Papers in South-East Asian Linguistics No.10, Pacific Linguistics Series A-No.75.

- Suwilai Premsrirat. 1986. *Aspect of inter-clausal relations in Khmu*. In Davidson ed., *Essays in Honour of H. L. Shorto*. London: School of Oriental and African Studies.
- Suwilai Premsrirat. 1984. World view in Khmu. *Thammasat Journal* 15.1: 94-113.
- Svantesson, J. 1983. *Kammu Phonology and Morphology*. Travaux de l'Institut de Linguistique de Lund XVIII.
- Svantesson, J. et. al. 1994. *Khmu-Lao Dictionary*. Ministry of Information and Culture Vientiane.
- Therapan L. Thongkum. 1993. The interaction between pitch and phonation type in Mon: phonetic implication for a theory of tonogenesis. *MKS* 16-17: 12-14.

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