

Phonological variation and change in the Khmu dialects of northern Thailand¹

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Although in Thailand Khmu is just a small ethnic minority, a remnant of a much bigger group in Laos, Khmu dialects are scattered along the Thai-Lao border in Nan and Chiengrai provinces and provide an ideal subject for the study of phonological variation and the so-called "register-tone development process." Synchronic variation can often indicate diachronic change. Cross-dialectal phonetic variation has important implications for Khmu historical phonology.

The Khmu in Chiengrai emigrated from Laos across the Mae Khong river to Thailand about 40-50 years ago; the Khmu in Nan have lived in their present and nearby locations for a long time. Some of them may have moved down from old villages further north. Some knew that their ancestors came from the Luangprabang area in Laos. There are about 10 Khmu villages in Chiengrai with a population of about 3,000 speakers, whereas in Nan there are about 20 villages with about 6,000 speakers. The synchronic structures of various Khmu dialects differ from one another phonologically, lexically, and syntactically. Speakers of one dialect do not have much contact with speakers of other dialects, which they call /tɔ́:j/, but they do have contact with the Khmu of the same dialect, which they call /kúnj táj kúnj hé:ɔ́m/ 'sister villages'. On the other hand, they have a lot of contact with local Tai speakers living in the same area who are mainly Northern Thai and Tai Lue.

This paper analyzes phonological variation in five Khmu dialects. These dialects are spoken in the following villages:

1. Huey Yen village, Chiengkong district, and Huey Ian village, King Wiengkaen district, Chiengrai province = Dial (1)²
2. Nam Pan, Huey Moy villages, King Songkhwai district, Nan province = Dial(2a)³ and Ban Maj Chajdan village, King Songkhwai district, Nan province = Dial(2b). These two dialects are in fact the same dialect, but while the Dial(2a) may have several word structures for one word, Dial(2b) has only one consistent word structure.

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²The data for this dialect is based on the author's *Thai-Khmu-English Dictionary*, 1993.

³The data for this dialect is based mainly on Preedaporn Srisakorn's *The Sound System of Khmu at Nampan in Nan*, 1984.

3. Nam Sot and Phu Kham villages, Thung Chang district, Nan province = Dial(3)
 4. Pa Phae village, Wieng Sa district, Nan province = Dial(4)
 5. Huey Puk and Huey Hai villages, Muang district, Nan province = Dial(5)

The phonological structure of these Khmu dialects is discussed here in terms of word and syllable structure, and segmental and suprasegmental phonemes. The data used for discussion here was mainly obtained or rechecked from the field work done in February 1994. The informants for each dialect are over 35 years of age.

1. Word and syllable structures

The Khmu syllable structure comprises one or more consonants and a vowel and may be of two types, unstressed presyllable and stressed main syllable. The main syllable canon is 'C(C)V(C).

A phonological word in Khmu may have one, two, or three syllables. A word has only one strong stress, which is always on the last syllable. The phonological word structures in Khmu are:

Monosyllabic word 'C(C)V(C):	[t'rá:k]	'buffalo',
	[rə:]	'to wash',
	[pəh]	'dust'
Disyllabic word C(C)V(C) 'C(C)V(C):	[kím'pón]	'head',
	[lawəŋ]	'sky',
	[m'raŋ]	'horse',
	[ŋ'kur]	'storm'
Trisyllabic word C(C)V, C(C)V(C)'C(C)VC:	[trə,ləp'tá:p]	'butterfly',
	[cə,lən'tén]	'dragonfly'

In general, monosyllabic and disyllabic words are common, and trisyllabic words are rare. The presyllable in most of the disyllabic words is generally believed to be a fossil of affixation, a Mon-Khmer characteristic. As shown in the variation of word structures in Khmu dialects below, the unstressed presyllable is sometimes deleted either partially or entirely.

1.1 Variation of word structures in different Khmu dialects

Word structures may vary in different Khmu dialects as shown in the following table. In Dial (2b) words are monosyllabic, whereas in the other dialects they are either monosyllabic or disyllabic.

Dial(1)	Dial(2)		Dial(3)	Dial(4)	Meaning
	(a)	(b)			
cmkín	cmkín	kin	smkín	cmkin	'female'
	mkín				
h?iər	h?iər	?iər	?iəj	?iəj/jial	'chicken'
khmu?	khmu?	mu?	khmu?	kamhmu?	'Khmu people'

ptəʔ	ptəʔ	təʔ	ktəʔ	ptəʔ	'smoke'
smʔir	mʔir	ʔir	ʔil	hʔir	'to smell'
tmrəʔ	mrəʔ	rəʔ	tmphlaʔ/ mphəʔ	tmbrəʔ	'charcoal stove'
chʔəŋ	chʔəŋ	ʔəŋ	sʔəŋ	cʔəŋ	'bone'
cmɸiəŋ	mpiəŋ	piəŋ	mpiəŋ	cmɸiəŋ	'straw'
hʔeʔ	hʔeʔ	ʔeʔ	ʔéʔ	hʔeʔ	'firewood'
kmaʔ	kbaʔ	maʔ	kmáʔ	kmaʔ	'rain'
kmlə:t	mlə:t	lə:t	mpə:t	kmlə:t	'to swallow'
kmɸɛŋ	ɸɛŋ	ɸɛŋ	smjəŋ/ kmjəŋ	ɸɛŋ	'to listen'
knɸiŋ	nɸiŋ	ɸiŋ	ktiŋ	tiŋ	'to fall down'
kntuəɾ	ntuəɾ	tuəɾ	ntūəl/j	kntuəl	'neck'
pnir	pdir	nir	pnil/j	pnir	'wing'
pnsim	nsim	sim	psim	psim	'to plant'
rɸkɔʔ	rɸkɔʔ	kɔʔ	ɸkoʔ	ɸkoʔ	'husked rice'
scəŋ	scəŋ	cəŋ	kacəŋ/ kachəŋ	sacəŋ	'elephant'
tmʔas	mʔas	ʔas	tmbəh	tmʔes	'to sneeze'
tmkɔʔ	tmkɔʔ	kɔʔ	mphláʔ/ mpáʔ	mbrəʔ	'wife'

It is obvious that Dial(1) has the fuller form of disyllabic words, whereas Dial (2) has variations. Most words in Dial(2a) have disyllabic structure, though in many cases the initial consonant of the presyllable is lost and the presyllable becomes a syllabic nasal, whereas Dial(2b) drops most of the presyllable, thus producing monosyllabic words. Dial(3) and Dial(4) also show variation in the word structure, though not as obvious and consistent as Dial(2).

1.2 Variation of word structure within Dialect (2a)

Looking at the word structure within a dialect, we see variation is similar to that found between different dialects. The main differences are found in the loss of the presyllable (including the nasal syllable), the simplification of the consonant cluster, some difference in vowels, and differences in pitch level. Dial(2a) provides a good illustration.

1.2.1 Loss of presyllable

In Dial(2a) some of the presyllables which are not stressed have variant forms, which show various stages of syllabicity: full syllable, half syllable, deletion of the whole syllable, or keeping only the main syllable.

1 (2 syllables)	~	2 (1 1/2 syllable)	~	3 (1 syllable)	Meaning
prliə	~	rliə	~	liə	'fire'
cmkin	~	mkín	~	kin	'woman, girl'
crɸəj	~	rɸəj	~	ɸəj	'to have a cold'
prthuh	~	rthuh	~	thuh	'carelessly'
prci:	~	rci:	~	ci:	'to remember'
prɸəj	~	rɸəj	~	nəj	'fan'

tmkɔʔ	~	mkɔʔ	~	kɔʔ	‘wife’
kamrəŋ	~	mrəŋ	~	rəŋ	‘horse’
hmteʔ	~	mteʔ	~	teʔ	‘to howl’
rmheʔ	~	rheʔ/mheʔ	~	heʔ	‘sinew, vessel’
rŋkɔʔ	~	rŋkɔʔ	~	kɔʔ	‘milled rice’

Speakers of different age groups do not pronounce the words in the same way. The speakers over 30 tend to use the fuller form of disyllabic words as in columns 1 and 2 above, whereas people younger than 30 tend to use monosyllabic words dropping the presyllable as in column 3.

1.2.2 Loss of syllabic nasal

mpur	~	pur	‘skin’
nchɨm	~	chɨm	‘soft’
rŋkɨm	~	khɨm	‘yesterday’
pleʔ mpir	~	pleʔ pir	‘pumpkin’
nthɛʔ	~	thɛʔ	‘below’
mɲɛŋ	~	ɲɛŋ	‘to listen, believe’
nthɛh	~	thɛh	‘bowl’
nsim	~	sim	‘to plant’
mkɨn	~	kin	‘woman’
ntəŋ	~	təŋ	‘brain’
mrəŋ	~	rəŋ	‘horse’
nsal	~	sal	‘galanga (a kind of spice)’
nləh	~	ləh	‘to be broken’
rŋkɔ:t	~	kɔ:t	‘to cough’
mphɔʔ	~	phɔʔ	‘ox’
mpɔŋ	~	pɔŋ	‘head’
mrɔʔ	~	rɔʔ	‘male’

1.2.3 Change in consonant clusters

Consonant clusters /tr-, thr-, cr-, chr-, sr-/ change to /kr-, khr-/ and any nasal presyllable is lost.

trak	-->	krak	‘buffalo’
trəh	-->	khrəh	‘to pull out’
crip	-->	krip	‘to close the lid’
chrɨʔ	-->	khrɨʔ	‘deep’
sreʔ	-->	khreʔ	‘sand’
srəʔ	-->	khrəʔ	‘a kind of edible plant’
sroʔ	-->	khroʔ	‘taro’
sruət	-->	khruət	‘morning’
nthri:k	-->	khrɨ:k	‘a kind of peel eaten with betel’
nthru:p	-->	khrɨ:p	‘to turn upside down’
nthriŋ	-->	khrɨŋ	‘horn’
nthri:	-->	khrɨ:	‘to demolish, collapse’
nthri:j	-->	khrɨ:j	‘wind’
nthri:əs	-->	khrɨ:əs	‘to comb’
knthri:ŋ/ nthri:ŋ	-->	khrɨ:ŋ	‘back, roof’

1.2.4 Change of vowel from ə to a in presyllable

pənpɪk	-->	panpɪk	‘to make the water muddy’
pənsɛh	-->	panseh	‘to cause to fall’
pəntrɪm	-->	pantrɪm	‘to cause to be smooth’
pənkɰəɾ	-->	pankɰəɾ	‘to cause to be straight’
pənləɕ	-->	panləɕ	‘to loose’
pənləɰh	-->	panləɰh	‘to cause to be broken’
pənpək	-->	panpak	‘to cause to be broken’

1.2.5 Change of pitch level from high to low

rəkét	-->	rəkèt	‘to think’
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2. Segmental phonemes

2.1 Consonants

2.1.1 Initial consonants

The general initial consonant system may be charted as follows.

		Bilabial	Alveolar	Palatal	Velar	Glottal
Stops	vl. unasp.	p	t	c	k	ʔ
	vl. asp.	ph	th	ch	kh	
	vd.	b*	d*	ɟ*	g*	
Fricatives			s			h
Nasals	vd.	m	n	ɲ	ŋ	
	vl. (preasp.)	hm*	hn*	hɲ*	hŋ*	
Lateral	vd.		l			
	vl. (preasp.)		hl*			
Trill/Flap	vd.		r*			
	vl. (preasp.)		hr*			
Approximants	vd.	w		j		
	vl. (preasp.)	hw*		hj*		

The * marks initial consonants that do not occur in all dialects.

While the consonant inventory of most Khmu dialects is basically similar, there are also important differences. Some dialects have the series of voiced initial stops contrasting with voiceless stops, some have voiceless continuants contrasting with voiced continuants, which are more common. In the following examples Dial(4) provides examples with voiced initial stops, whereas Dial(3) and Dial(4) provide examples with voiceless continuants.

It should be noted here that in the voiced stop series, the *b* and *d* in Dial(1) are clearly implosive, Dial(2) and (3) have normal voiced stop, and Dial(4) is a kind of prenasalized stop. An instrumental study on certain consonants may be needed.

Examples given below present variation in initial consonant of different dialects.

a) Variation in the initial stops with voiceless aspirated, voiceless unaspirated and voiced stops in contrast.

Dial(1)	Dial(2)	Dial(3)	Dial(4)	Meaning
priʔ	phriʔ	kəŋ pliʔ/piʔ	briʔ	'forest'
pəɽ	phəɽ	pha:l/j	baɽ/l	'two'
kəŋ	khəŋ	kaŋ	gaŋ	'house'
kʉŋ	khʉŋ	kʉm	gʉŋ	'to see'
pʉ:c	phʉ:c	pu:c/t	bu:c	'rice wine'
pə:	phə:	pə:	bə:	'you female'
kj:	khj:	ki:	gi:	'here'
kʰit	khʰit	kʰit	gʰit	'to chop'
kləŋ	khləŋ	kləŋ	gləŋ	'stone'
klɛʔ	khɛʔ	klɛʔ/kèʔ	glɛʔ	'husband'
kləʔ	khləʔ	kləʔ/kəʔ	gləʔ	'hair'
ktəh	khəh	ktəh	kdəh	'forehead'
plʉʔ	phlʉʔ	plʉʔ/pʉʔ	blʉʔ	'thigh'
plɔŋ	phlɔŋ	plɔŋ/pɔŋ	blɔŋ	'rattan'
pɔk	phɔk	pɔk	bɔk	'to cut a tree'
pɔh	phɔh	pɔh	bɔh	'ash'
priəl	phriəl	phiəl/j	biəl	'to be alive, living'
priəŋ	phriəŋ	priəŋ/piəŋ	briəŋ	'other people'
pʉʔ	phʉʔ	pʉʔ	buʔ	'breast feeding'
pʉŋ	phʉŋ	pʉŋ	buŋ	'mud'
tɛn	thɛn	tɛn	den	'to sit'
tʉn	thʉn	tʉn	din	'to stand'

b) Variations in voiced and voiceless continuants. Not only *r ~ hr ~ l ~ hl ~ h*, but also *w ~ hw*, *N ~ hN*, and *m ~ hm ~ sm* are in variation in different dialects, and in some cases they are also used in free variation in the same dialect, especially in Dial(3) and Dial(4).

Dial(1)	Dial(2)	Dial(3)	Dial(4)	Meaning
laʔ	laʔ	hláʔ	hlaʔ	'leaf'
lɔŋ	lɔŋ	hlɔŋ	hɔŋ	'to forget'
riəŋ	riəŋ	hlíəŋ	hriəŋ	'gut, intestine'
ro:j	ro:j	ró:j/hó:j	hro:j	'ghost, spirit'
raŋ	raŋ	hláŋ	hraŋ	'teeth'
reʔ	reʔ	hréʔ/hléʔ/héʔ	hreʔ	'field'
wək	wək	wák	hwək	'earthworm'
waʔ	waʔ	wáʔ	hwaʔ	'monkey'
ntək	ntək/ta:k	nták	hntək	'tongue'
ŋəp	ŋəp	há:p	hŋəp	'to yawn'
nam	nam	nám	hnám	'big'
mɛʔ	mɛʔ	mɛʔ	hmeʔ	'new'
smpɔɽ	mpɔɽ/pɔɽ	-	hmpɔɽ	'tamarind'
khmuʔ	khmuʔ/muʔ	khmúʔ	hrjaʔ/hjaʔ	'cloth bag'
			kmhmuʔ	'Khmú people'

c) Variation in the use of consonant clusters:

Dial(1)	Dial(2) (a)	Dial(2) (b)	Dial(3)	Dial(4)	Meaning
træk kraŋ	thra:k khrəŋ	kræk khrəŋ	thrá:k/thá:k khrəŋ/khləŋ/ khaŋ	thra:k graŋ	'buffalo' 'strong'
cntrəŋ cɽəəs cru?	ntrəŋ chriəs chrɿ?/trɿ?	khrəŋ khiəs khrɿ?/khu?	nthráŋ/nthàŋ nthriəs chrɿ?	ntrəŋ nciəs ɽru?	'post' 'to comb' 'deep'
kle? klə?	khle? khlə?	khle? khlə?	klè?/kè? klə?/kà?	gle? glə?	'husband' 'to see'

d) Variation in the initial consonant of presyllable:

ch?aŋ cmkin cmrɿ? cntah	c?aŋ mkin mrɿ? cntah	?aŋ kin rɿ? tah	s?aŋ smkin smphrɿ? sntáh/sɽtáh	c?aŋ cmkin cmrɿ? cntah	'bone' 'female' 'male' 'shrimp'
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e) Variation in other initial consonants:

Dial(1)	Dial(2)	Dial(3)	Dial(4)	Meaning
?iək h?iər nɛ? cat cɿəŋ h?ir h?iə	?iək h?iər/?iər nɛ? cat chiəŋ h?ir/?ir h?iə/?iə	jiək ?iəj ɲɛ?/?ɛ? ját/cát - ?il/kh?i:j jiə/?iə	?iək ?iəj/jiəl ɲɛ? cát jiəŋ h?ir h?iə	'to drink' 'chicken' 'small' 'sour' 'foot' 'good smell' 'sweet'

2.1.2 Final Consonants

The general final consonant system may be charted as follows.

	Labial	Alveolar	Palatal	Velar	Glottal
Stop	p	t	c*	k	ʔ
Fricative		s*			h
Nasal	m	n	ɲ*	ŋ	
Trill/Flap		r*			
Lateral		l			
Semivowel	w			j	

The * marks final consonants which do not appear in all dialects.

Among these four Khmu dialects the following final consonant correspondences have been found:

		Dial(1, 2, 4)	Dial(3)		
		-r	-l, -j		
		-l	-j		
		-ɲ	-n, (-ɲ)		
		-c	-t		
		-s	-h		
Dial(1)	Dial(2)	Dial(3)	Dial(4)	Meaning	
mər	mər	mâ:j	mər	'salt'	
mər	mər	mal/maj	mar	'snake'	
kntuər	ntuər	ntûəl/ntûəj	kntuəl	'neck'	
cưr	chưr	cù:l/cù:j	cưr	'to go down'	
kír	kír	kěj	kír	'thunder'	
kɔr	khɔr	kəl/kɔj	gor	'to scratch with finger nail'	
mpɪər	mpɪər/piər	mpîəl/mpîəj	mpɪər	'flat bamboo tray'	
pər	phər	pəl/pəj	bər	'two'	
pliər	pliər	pîəl/pîəj	mpliər/pliər	'hail'	
pnír	pđír/nír	pnîl/pnîj	pnír	'wing'	
tír	tír	tîl/tîj	tír	'to fly'	
huəl	huəl	húəl/húəj	huəl	'bear'	
kuəl	khuəl	kûəl/kuəj	kuəl	'rice mortar'	
pəɲ	phəɲ	pəɲ/pəɲ	bəɲ	'to get drunk'	
pɪɲ	pɪɲ	pɪɲ/pɪɲ	pɪɲ	'to shoot a gun'	
plɛc	plɛc	plét	plɛc	'to clean inner part'	
tmʔas	mʔas/ʔas	tmbéh	tmʔɛs	'to sneeze'	

2.1.3 Age-conditioned variants

In Nam Sot, Thung Chang district, Nan province, (Dial3) there is a clear difference in pronunciation between people over 30 years old and those under 30.

1) Initial consonants

a) The simplification of consonant clusters: *pl-*, *phl-*, *thl-*, *kl-*, and *khl-* become *p-*, *ph-*, *th-*, *k-*, *kh-* respectively, as in the following example:

Over 30	Under 30	Meaning
pléʔ/péʔ	pléʔ/péʔ	'fruit'
mplə:t	mpə:t	'to swallow'
pléc/péc	pét	'to clean the internal organs of animal'
plíət	píət	'to cut short (the wood)'
plɑ:	plɑ:pɑ:	'to cook by mincing raw meat'
plɛh	pɛh	'flat taste'
phlíʔ	phíʔ	'peppery hot'
kəɲ phlíʔ	kəɲ phíʔ	'forest'
phlíɲ	phíɲ	'drum'

phli:ŋ	phi:ŋ	'drum'
thlâ:k	thâ:k	'buffalo'
nthlaŋ	nthaŋ	'post'
nthlòh	nthòh	'to be boiled'
nthliŋ/nthiŋ	nthiŋ	'horn'
klà?	kà?	'hair'
klà:ŋ/kà:ŋ	klà:ŋ/kà:ŋ	'stone'
klép/kép	kép/kép	'shoulder'
klè?	klè?/kè?	'husband'
klíh	kíh	'to do wrong'

b) The loss of the lateral articulation leaving only the glottal fricative: *hl ~ h*

Over 30	Under 30	Meaning
hlà:ŋ	hlà:ŋ/hà:ŋ	'tooth'
hlí:ŋ/hí:ŋ	hí:ŋ	'intestine'
hli:	hi:	'to pull'
hla:	ha:	'to wash'
hlóh/hóh	hóh	'to get up'
hlé?	hé?	'field, farm'

c) Other correspondences: *ʔ ~ j, c ~ s, ch ~ th ~ s, k ~ kh, and ɲ ~ j*

Over 30	Under 30	Meaning
ʔiək	j̄iək	'to drink'
caliəŋ/calíəŋ	caliəŋ/saliəŋ	'roofing grass'
canim	canim/sanim	'medicine'
chimkín	thimkín/simkín	'female'
calɛʔ/salɛʔ	salɛʔ	'to run'
chiəŋ	siəŋ	'pig'
kamjaŋ/kamjaŋ	khamjaŋ	'to listen'

2) Final Consonants

The variation between final *-l* and *-j*, occur in words in Dial 3 which have a final *-r* in other dialects.

Dial(1)	Dial(3)		Meaning
	Over 30	Under 30	
mər	mal	maj	'snake'
hʔiər	ʔíəl	ʔiəj	'chicken'
pniər	pəniəl	pəniəj	'wing'
mpuər	mpú:l	mpú:j	'skin'
kntuər	ntúəl	ntúəj	'neck'
khu:l	khú:l	khú:j	'hair'
ktɛl	kətəl	kətəj	'stomach'
mpiər	mpíəl	mpíəj	'bamboo tray'
kuəl	kúəl	kúəl/kúəj	'rice mortar'
ŋər	ŋó:l	ŋó:j	'way'

pɑːr	pɑ:l	pɑːj	'two'
kɔːr	khól	khôj	'to scratch'
kwa:l	kwa:l	kwaːj	'to bark'
hur	hûl	hûj	'to blow'
tɪːr	fɪ:l	fɪːj	'to fly'
cɔːr	cù:l	cùːj	'to go down'
hiəl	hîəl	hîəj	'to vomit'
hur	hû:l	hûːj	'rotten'
hɛ:l	hê:l	hêːj	'to cut grass'
hɑ:l	hâ:l	hâːj	'to peel with knife'
ŋɑːr	ŋâl	ŋâj	'cool'

It should be noted that for many people *-r*, *-l* and *-j* seem to be in free variation. They may prefer one sound, but they are ready to change to the other two sounds, if they are speaking to people who use those sounds. Final *-r* occurs in Dial(3), but only in the speech of older people who use it in free variation with *-l*.

For other final consonants, final *-ŋ* has also been found corresponding to *-n* or *-ŋ*.

samêŋ	samêŋ	'star'
pîŋ/pîŋ	pîŋ	'to shoot'
kûŋ	kûn	'to see'
kêŋ	kên	'to stab'

2.2 Vowels

The Khmu vowel system is rather simple. Most dialects have a nine vowel system in which length is contrastive, and there are three diphthongs. Only some dialects have the long central back vowel *ɑː*.

	Front		Unrounded Central		Back	Rounded Back	
High	i	iː	ɨ	ɨː		u	uː
Mid	e	eː	ə	əː		o	oː
Low	ɛ	ɛː	a	aː	*ɑː	ɔ	ɔː
		iə		ɨə			uə

3. Suprasegmental phonemes

Suprasegmental phonemes in Khmu are rather complex. Both within dialects and between dialects of Khmu they are very complex.

Using register, based on Henderson (1952), as a framework in which to explain Khmu suprasegmental features, we can arrive at the solution.

Register (also called register complex) refers to the linguistic phenomenon that several suprasegmental features tend to work together as a complex group, rather than as individual features. In Mon-Khmer languages these clustering features tend to include voice quality, pitch, voicing of the initial consonant, vowel height,

and vowel gliding. The voice quality ranges from breathy to clear (modal) to creaky. The pitch ranges from high to mid to low. The voicing refers to voiced and voiceless initial consonants. The vowel height refers to close or open vowels. The vowel gliding refers to onglide, plain, and offglide. The tension refers to tenseness and laxness. The register complex affects the whole syllable not just the vowel. Normally, one or two features of the register complex will become more prominent in one language.

The four Khmu dialects discussed plus Dial(5) provide examples for discussion here. they contain most of the suprasegmental features just mentioned. However, different features have been exploited by different dialects. The voicing contrast is exploited by Dial(4), while voice quality is exploited by Dial(1) and (2), and in Dial(2) some initial stops are aspirated. Dial(3) and Dial(5) contrast high and low pitches.

Dial(1)	Dial(2a,b)	Dial(3)	Dial(4)	Dial(5)	Meaning
caŋ	caŋ	càŋ	jaŋ	càŋ	'to weigh'
caŋ	caŋ	cáŋ	caŋ	cáŋ	'to be astringent'
ku:ŋ	khũ:ŋ	kũ:m	gu:ŋ	kũ:ŋ	'to see'
ku:ŋ	ku:ŋ	kũ:m	ku:ŋ	kũ:ŋ	'elder male relative'
ŋɔ?	ŋɔ?	ŋɔ?	ŋɔ?	ŋɔ?	'to fear'
ŋɔ?	ŋɔ?	ŋɔ?	hɔɔ?/ho?	ŋɔ?	'paddy rice'
pũ:c	phũ:c	pũ:c/pũ:t	bũ:c	pũ:c	'rice wine'
pũ:c	pũ:c	pũ:c/pũ:t	pũ:c	pũ:c	'to take off'
çam	çam	càm	jam	càm	'to soak in water'
cam	cam	cám	cam	cám	'a kind of trap'
klãŋ	khlãŋ	klãŋ	glãŋ	klãŋ	'stone, pebble'
klãŋ	klãŋ	klãŋ	klãŋ	klãŋ	'eagle'
lã?	lã?	-	la?	là?	'to go for pleasure'
la?	la?	hlã?	hla?	lá?	'leaf'
pã:t	phã:t	pã:t	bart	pã:t	'to sharpen wood'
pa:t	pa:t	pã:t	pa:t	pã:t	'to slice (meat)'
pak	phak	pãk	bak	pãk	'to ride'
pak	pak	pãk	pak	pãk	'to break'
plɔ:ŋ	plɔ:ŋ	plɔ:ŋ/pɔ:ŋ	blɔ:ŋ	plɔ:ŋ	'rattan'
plɔ:ŋ	plɔ:ŋ	plɔ:ŋ/pɔ:ŋ	plɔ:ŋ	plɔ:ŋ	'calf of leg'
pok	phok	pòk	bok	pòk	'to cut a tree'
pok	pok	pók	pok	pók	'to take a bite'
pɔ?	phɔ?	pɔ?	bo?	pɔ?	'to carry a baby with piece of cloth'
po?	po?	-	po?	pɔ?	'to sweep'
pu:ŋ	phũ:ŋ	pũ:ŋ	bu:ŋ	pũ:ŋ	'mud'
pu:ŋ	pu:ŋ	pũ:ŋ	pu:ŋ	pũ:ŋ	'to blow (instrument)'
pũ:m	phũ:m	pũ:m	bu:m	pũ:m	'to chew'
pũ:m	pũ:m	pũ:m	pũ:m	pũ:m	'to fart'
rã:ŋ	rã:ŋ	lã:ŋ	ra:ŋ	rã:ŋ	'flower'
ra:ŋ	ra:ŋ	hlã:ŋ/ha:ŋ	hra:ŋ	rã:ŋ	'tooth'
tã:r	thã:r	sa:ŋ?	dar	tã:r	'to run'
tar	tar	-	tar	tã:r	'rattan band for carrying basket'
wã:k	wã:k	wã:k	wã:k	wã:k	'earthworm'
wã:k	wã:k	-	hwã:k	wã:k	'to be chipped'
wat	wat	wát	wat	wát	'to pierce'
wat	wat	wát	hwat	wát	'to throw'

Dial(5) has been added here to show another dialect of Khmu which is very close to Dial(1), but in Dial(5) pitch is contrastive, while in Dial(1) voice quality is contrastive. The difference between Dial(1) and Dial(5) is quite obvious from auditory impression, as well as from the speakers' intuition.

The variation of suprasegmental features in different Khmu dialects indicates an aspect of the historical development of Khmu phonology. Huffman's hypothesis of stages of register complex in 15 Mon-Khmer languages (1976) can be partly applied in explaining the stages of phonological change or the register-tone development process in Khmu.

Dial(4), with voicing contrast in the initial consonant, shows the early stage of the development. The voiced and voiceless initial consonants with no vowel difference show this dialect is a conservative type of dialect.

Dial(1) and Dial(2), with voice quality contrast, indicate that the initial consonant has lost the voicing and the whole syllable is associated with the register complex, especially laxness and tenseness. It is noticeable that the laxness or breathiness is stronger in words with initial stops. Initial stops in Dial(2) are also associated with aspiration as well as the laxness.

Dial(3) and Dial(5), with pitch contrast, show that the initial consonants have lost the voicing contrast. Acoustic studies have found that voiced consonants are associated with low pitch, whereas voiceless consonants are associated with high pitch, and in Khmu this is the normal interdialectal correspondence. Dial(5) has obviously two contrastive tones, whereas Dial(3) has two contrastive tones with the tendency to develop a four tone system. Dial(5) is similar to Dial(1) in terms of syllable structure, choice of lexicon, and final consonants, etc. However, for the suprasegmental feature it has developed a contrastive tone system, whereas Dial(1) has developed a contrastive register system.

As a result, some dialects of Khmu, such as Dial(3) and Dial(5), have become tone languages. The presyllable is reduced in one way or another, phonation is less prominent or even disappears; but the pitch differences can be heard clearly. These are high and low tones with a tendency to develop a four tone system in Dial(3). Other dialects are at different stages of the process. Dial(1) has developed a tense-lax register system in the same way as Dial(2a, b), except that the latter has added aspiration to the initial stop of the lax/breathy register syllable. Dial(4) is the most conservative by retaining the voicing contrast. It is a non-tonal non-register language.

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