

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 Chiangrai 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 Chiangrai 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 Chiangrai 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 /tmó:j/, but they do have contact with the Khmu of the same dialect which they call /kún tá:j kún hé:m/ '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, Chiangkhong district, and Huey Ian village, King Wiengkhaen district, Chiangrai province = Dial(1)²

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

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.

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 most recent 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):

[trá:k] 'buffalo', [ra:] 'to wash', [pəh] 'dust'

Disyllabic word C(C)V(C) 'C(C)V(C):

[kim'pəŋ] 'head', [lawə:ŋ] 'sky'

[m̩'raŋ] 'horse', [ŋ'kur] 'storm'

Trisyllabic word C(C)V,C(C)V(C)'C(C)V(C):

[trə,ləp'tá:p] 'butterfly'

[cə,ləŋ'tén] 'dragonfly'

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

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) (a) (b)	Dial(3)	Dial(4)	Meaning
cmkin	cmkin/ mkin kin	smkin	cmkin	'female'
h?iər	h?iər ?iər	ʔəj	?iəj/jial	'chicken'
khmu?	khmu? mu?	khmu?	kamhmu?	'Khmu people'
ptə?	ptə? tə?	ktə?	ptə?	'smoke'
sm?ir	m?ir ?ir	bil	h?ir	'to smell'
tmra?	mra? ra?	tmphla?/ mpha?	tmbra?	'charcoal stove'
ch?a:ŋ	ch?a:ŋ ?a:ŋ	s?â:ŋ	c?a:ŋ	'bone'
cmpiəŋ	mpiəŋ piəŋ	mpiəŋ	cmpiəŋ	'straw'
h?e?	h?e? ?e?	?é?	h?e?	'firewood'
kma?	kba? ma?	kmá?	kma?	'rain'
kmlə:t	mlə:t lə:t	mpə:t	kmlə:t	'to swallow'
kmɲeŋ	mɲeŋ ɲe:ŋ	smjaŋ/kmjaŋɲe:ŋ		'to listen'
knɬi:ŋ	nti:ŋ ti:ŋ	kti:ŋ	ti:ŋ	'to fall down'
kntuər	ntuər tuər	ntûəl/j	kntuəl	'neck'
pnir	pdir nir	pnil/j	pnir	'wing'
pnsim	nsim sim	psim	psim	'to plant'
rŋkə?	rŋkə? kə?	ŋko?	ŋko?	'husked rice'
sca:ŋ	sca:ŋ ca:ŋ	kacâ:ŋ/ kachâ:ŋ	saca:ŋ	'elephant'
tm?as	m?as ?as	tmbeh	tm?es	'to sneeze'
tmkə?	tmkə? kə?	mphlá?/ mpá?	mbra?	'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, making 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 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 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
prl̩ə	~	rl̩ə	~	l̩ə	'fire'
cmkin	~	mkin	~	kin	'woman, girl'
cr̩ɳə:j	~	r̩ɳə:j	~	ɳə:j	'to have a cold'
pr̩thuh	~	r̩thuh	~	thuh	'carelessly'
pr̩ci:	~	r̩ci:	~	ci:	'to remember'
pr̩ɳə:j	~	r̩ɳə:j	~	ɳə:j	'fan'
tmkɔ?	~	mkɔ?	~	kɔ?	'wife'
kamr̩ɳ	~	mr̩ɳ	~	r̩ɳ	'horse'
hmte?	~	mtē?	~	tē?	'to howl'
rmhe?	~	rhe?/mhe?	~	he?	'sinew, vessel'
r̩kɔ?	~	ɳkɔ?	~	kɔ?	'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'
ŋkhɨn	~	khɨn	'yesterday'
pleʔ mpiɹ	~	pleʔ piɹ	'pumpkin'
ntheʔ	~	theʔ	'below'
mɲeŋ	~	ɲeŋ	'to listen, believe'
ntheh	~	theh	'bowl'
nsim	~	sim	'to plant'
mkin	~	kin	'woman'
ntaŋ	~	taŋ	'brain'
mraŋ	~	raŋ	'horse'
nsal	~	sal	'galanga (a kind of spice)'
nləh	~	ləh	'to be broken'
ŋkɔ:t	~	kɔ:t	'to cough'
mphɔʔ	~	phɔʔ	'ox'
mpoŋ	~	poŋ	'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.

tra:k	-->	kra:k	'buffalo'
trəh	-->	khrəh	'to pull out'
crip	-->	krip	'to close the lid'
chrɨʔ	-->	khrɨʔ	'deep'
sreʔ	-->	khreʔ	'sand'
sraʔ	-->	khraʔ	'a kind of edible plant'
sroʔ	-->	khroʔ	'taro'
sruət	-->	khruət	'morning'
nthɹi:k	-->	khɹi:k	'a kind of peel eaten with betel'
nthɹu:p	-->	khɹu:p	'to turn upside down'
nthɹiŋ	-->	khɹiŋ	'horn'
nthɹi:	-->	khɹi:	'to demolish, collapse'
nthɹə:j	-->	khɹə:j	'wind'
nthɹiəs	-->	khɹiəs	'to comb'
knthɹɔ:ŋ/	-->	khɹɔ:ŋ	'back, roof'
nthɹɔ:ŋ			

1.2.4 Change of vowel from ə to a in presyllable

pənpik	-->	panpik	'to make the water muddy'
pəneh	-->	paneh	'to cause of fall'
pəntrɨm	-->	pantrɨm	'to cause to be smooth'

pəŋkɰar	-->	pankɰar	'to cause to be straight'
pəŋlɰɛc	-->	panlɰɛc	'to loose'
pəŋlɰɛh	-->	panlɰɛh	'to cause to be broken'
pənpak	-->	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. unaspl.	p	t	c	k	ʔ
	vl. aspl.	ph	th	ch	kh	
	vd.	b*	d*	j*	g*	
Fricatives			s			h
Nasals	vd.	m	n	ɲ	ŋ	
	vl. (preaspl.)	hm*	hn*	hɲ*	hŋ*	
Lateral	vd.		l			
	vl. (preaspl.)		hl*			
Trill/Flap	vd.		r*			
	vl. (preaspl.)		hr*			
Approximants	vd.	w		j		
	vl. (preaspl.)	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 of 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(2a, b)	Dial(3)	Dial(4)	Meaning
priʔ	phriʔ	kɔ:ŋpfiʔ/pĩʔ	briʔ	'forest'
pɑ:r	phɑ:r	pha:l/j	ba:r/l	'two'
kɑ:ŋ	khɑ:ŋ	ka:ŋ	ga:ŋ	'house'
kɯ:ŋ	khɯ:ŋ	kù:n	gu:ŋ	'to see'
pɯ:c	phɯ:c	pu:c/t	bu:c	'rice wine'
pɑ:	phɑ:	pa:	ba:	'you (female)'
kj:	khi:	ki:	gi:	'here'
kʰit	khit	kʰit	git	'to chop'
klɑ:ŋ	khla:ŋ	klɑ:ŋ	gla:ŋ	'stone'
klɛʔ	khleʔ	klɛʔ/kèʔ	gleʔ	'husband'
klɔʔ	khleʔ	klɔʔ/kəʔ	glɔʔ	'hair'
ktah	kthah	ktah	kdah	'forehead'
plɯʔ	phlɯʔ	plùʔ/pùʔ	bluʔ	'thigh'
plɔ:ŋ	plɔ:ŋ	plò:ŋ/pò:ŋ	blɔ:ŋ	'rattan'
pòk	phòk	pòk	bok	'to cut a tree'
pɔh	phɔh	pɔh	bɔh	'ash'
prɛəl	phrɛəl	phiəl/j	biər	'to be alive, living'
prɛəŋ	phrɛəŋ	priəŋ/piəŋ	briəŋ	'other people'
puʔ	phuʔ	pùʔ	buʔ	'breast feeding'
pun	phun	pun	bun	'mud'
tɛn	thɛn	ten	den	'to sit'
tɪn	thɪn	tɪn	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) (a, b)	Dial(3)	Dial(4)	Meaning
laʔ	laʔ	hláʔ	hlaʔ	'leaf'
lon	lon	hlón	hlon	'to forget'
riəŋ	riəŋ	hlíəŋ	hriəŋ	'gut, intestine'
ro:j	ro:j	ró:j/hó:j	hroj	'ghost, spirit'
ra:ŋ	ra:ŋ	hlá:ŋ	hra:ŋ	'teeth'
ra:ʔ	ra:ʔ	hlá:ʔ/hí:ʔ	hra:ʔ	'to eat'

wə:k	wək	wá:k	hwək	'earthworm'
wa?	wa?	wá?	hwa?	'monkey'
nta:k	nta:k/ta:k	ntá:k	hnta:k	'tongue'
ŋa:p	ŋa:p	há:p	hŋa:p	'to yawn'
nam	nam	nám	hnam	'big'
mɛ?	mɛ?	me?	hme?	'new'
smpɔ:r	mpɔ:r/pɔ:r	-	hmpɔ:r	'tamarind'
			hrja?/hja?	'cloth bag'
khmu?	khmu?/mu?	khmú?	kmhmu?	'Khmu people'

c) Variation in the use of consonant clusters:

Dial(1)	Dial(2) (a)	Dial(2) (b)	Dial(3)	Dial(4)	Meaning
tra:k	thra:k	kra:k	thrá:k/thá:k	thra:k	'buffalo'
kraŋ	khraŋ	khraŋ	khraŋ/khlaŋ/ khaŋ	graŋ	'strong'
cntraŋ	ntraŋ	khraŋ	nthraŋ/nthàŋ	ntraŋ	'post'
crɪəs	chriəs	khiəs	nthriəs	nciəs	'to comb'
cru?	chrɪ?/trɪ?	khru?/khu?	chrɪ?	gru?	'deep'
klɛ?	khle?	khle?	klè?/kè?	gle?	'husband'
klə?	khle?	khle?	klə?/kə?	glə?	'to see'

d) Variation in the initial consonant of the presyllable:

ch?a:ŋ	c?a:ŋ	?a:ŋ	s?á:ŋ	c?a:ŋ	'bone'
cmkɪn	mkɪn	kɪn	smkɪn	cmkɪn	'female'
cmrɔ?	mrɔ?	rɔ?	smphrɔ?	cmrɔ?	'male'
cntah	cntah	tah	sntáh/sɲtáh	cntah	'shrimp'

e) Variation in other initial consonants:

Dial(1)	Dial(2)	Dial(3)	Dial(4)	Meaning
ʔiək	ʔiək	jiək	ʔiək	'to drink'
hʔiər	hʔiər/ʔiər	ʔiəj	ʔiəj/jiəl	'chicken'
nɛ?	nɛ?	ɲɛ?/jɛ?	ɲɛ?	'small'
cat	cat	ját/cát	cát	'sour'
çiəŋ	chiəŋ	-	jiəŋ	'foot'
hʔi:r	hʔi:r/ʔi:r	ʔi:l/khʔi:j	hʔi:r	'good smell'
hʔiə	hʔiə/ʔiə	jiə/ʔiə	hʔiə	'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) (a, b)	Dial(3)	Dial(4)	Meaning
ma:r	ma:r	mâ:j	ma:r	'salt'
mər	mər	mal/maj	mar	'snake'
kntuər	ntuər	ntûəl/ntûəj	kntuəl	'neck'
cɯ:r	chɯ:r	cù:l/cù:j	cur	'to go down' 'finger nail'
kir	kir	kij	kir	'thunder'
kər	khər	kol/køj	gor	'to scratch with'
mpjər	mpjər/piər	mpjəl/mpjəj	mpjər	'flat bamboo tray' of the animal'
pər	phər	pa:l/paj	ba:r	'two'
pliər	pliər	pjəl/pjəj	mpliər/piər	'hail'
pnir	pdir/nir	pnil/pnij	pnir	'wing'
tir	tir	tù:l/tù:j	tir	'to fly'
huəl	huəl	hùəl/hùəj	huəl	'bear'
kuəl	khuəl	kùəl/kùəj	kuəl	'rice mortar'
pəɲ	phəɲ	pa:ɲ/pa:n	ba:ɲ	'to get drunk'
pjɲ	pjɲ	pjɲ/pjɲ	pjɲ	'to shoot a gun'
plec	plɛc	plét	plec	'to clean inner part'
tmʔas	mʔas/ʔas	tmbéh	tmʔes	'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 organ of animal'
pfiət	píət	'to cut short the wood'
plə:	plə:/pa:	'to cook by mincing raw meat'
pləh	pəh	'flat taste'
phlíʔ	phíʔ	'peppery hot'
kə:ŋ phlíʔ	kə:ŋ phiʔ	'forest'
phli:ŋ	phi:ŋ	'drum'
thlâ:k	thâ:k	'buffalo'
nthlaŋ	nthaŋ	'post'
nthlòh	nthòh	'to be boiled'
nthliŋ/nthiŋ	nthiŋ	'horn'
kləʔ	kəʔ	'hair'
klà:ŋ/kà:ŋ	klà:ŋ/kà:ŋ	'stone'
klép/kép	kép/kép	'shoulder'
klèʔ	klèʔ/kèʔ	'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'
hfiəŋ/híəŋ	híəŋ	'intestine'
hli:	hi:	'to pull'
hla:	ha:	'to wash'
hlóh/hóh	hóh	'to get up'
hléʔ	héʔ	'field, farm'

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

Over 30	Under 30	Meaning
ʔək	jək	'to drink'
caliəŋ/cafiəŋ	caliəŋ/safiəŋ	'roofing grass'
canim	canim/sanim	'medicine'
chimkin	thimkin/simkin	'female'
calɛʔ/salɛʔ	salɛʔ	'to run'
chiəŋ	siəŋ	'pig'
kampanj/ kamjan	khamjan	'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)	Over 30	Dial(3) Under 30	Meaning
mər	mal	maj	'snake'
hʔiər	ʔiəl	ʔiəj	'chicken'
pnir	pənɪl	pənɪj	'wing'
mpur	mpɪl	mpɪj	'skin'
kntuər	ntuəl	ntuəj	'neck'
khur	khûl	khûj	'hair'
ktɛl	kətɛl	kətɛj	'stomach'
mpiər	mpɪəl	mpɪəj	'bamboo tray'
kuəl	kûəl	kûəl/kûəj	'rice mortar'
ŋɔ:r	ŋɔ:l	ŋɔ:j	'way'
pə:r	pâ:l	pâ:j	'two'
kɔr	khól	khôj	'to scratch'
kwa:l	kwa:l	kwa:j	'to bark'
hur	hûl	hûj	'to blow'
tɪ:r	tɪ:l	tɪ:j	'to fly'
cɪ:r	cû:l	cû:j	'to go down'
hiəl	hiəl	hiəj	'to vomit'
hur	hûl	hûj	'rotten'
hɛ:l	hê:l	hê:j	'to cut grass'
ha:l	hâ:l	hâ:j	'to peel with knife'
ŋər	ŋəl	ŋəj	'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'
pīŋ/pīŋ	pīŋ	'to shoot'
kûŋ	kû:n	'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 Λ :

	Unrounded			Rounded
	Front	Central	Back	Back
High	i i:	ɨ ɨ:		u u:
Mid	e e:	ə ə:		o o:
Low	ɛ ɛ:	a a:	* Λ :	ɔ ɔ:
	ɨə	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
cəŋ	chəŋ	cəŋ	jaŋ	cəŋ	'to weigh'
caŋ	caŋ	cán	caŋ	cán	'to be astringent'
kù:ŋ	khù:ŋ	kù:n	gu:ŋ	kù:ŋ	'to see'
ku:ŋ	ku:ŋ	kú:n	ku:ŋ	kú:ŋ	'elder male relative'
ŋɔ?	ŋɔ?	ŋɔ?	ŋɔ?	ŋɔ?	'to fear'
ŋɔ?	ŋɔ?	ŋɔ?	hŋɔ?/hɔ?	ŋɔ?	'paddy rice'
pù:c	phù:c	pù:c/pù:t	bu:c	pù:c	'rice wine'
pu:c	pu:c	pù:c/pù:t	pu:c	pù:c	'to take off'
cəm	chəm	cəm	jam	cəm	'to soak in water'
cam	cam	cám	cam	cám	'a kind of trap'
klà:ŋ	khla:ŋ	klà:ŋ	glà:ŋ	klà:ŋ	'stone, pebble'
kla:ŋ	kla:ŋ	klá:ŋ	kla:ŋ	klá:ŋ	'eagle'
lɔ?	lɔ?	-	la?	là?	'to go for pleasure'
la?	la?	hlá?	hla?	lá?	'leaf'
pà:t	phà:t	pà:t	ba:t	pà:t	'to sharpen wood'
pa:t	pa:t	pát	pa:t	pát	'to slice (meat)'
pək	phək	pək	bak	pək	'to ride'
pak	pak	pák	pak	pák	'to break'
plɔ:ŋ	plɔ:ŋ	plò:ŋ/pò:ŋ	blo:ŋ	plò:ŋ	'rattan'
plɔ:ŋ	plɔ:ŋ	pló:ŋ/pó:ŋ	plɔ:ŋ	pló:ŋ	'calf of leg'
pək	phək	pək	bok	pək	'to cut a tree'
pok	pok	pók	pok	pók	'to take a bite'
pɔ?	phɔ?	pò?	bo?	pò?	'to carry a baby with piece of cloth'
pɔ?	pɔ?	-	pɔ?	pó?	'to sweep'
pùŋ	phùŋ	pùŋ	buŋ	pùŋ	'mud'
pun	pun	pún	pun	pún	'to blow (instrument)'
py:m	phy:m	pù:m	bu:m	pù:m	'to chew'
pu:m	pu:m	pú:m	pu:m	pú:m	'to fart'
rə:ŋ	rə:ŋ	la:ŋ	ra:ŋ	rà:ŋ	'flower'
ra:ŋ	ra:ŋ	hlá:ŋ/ha:ŋ	hra:ŋ	rá:ŋ	'tooth'
təŋ	thəŋ	sa:ŋ?	dar	tàŋ	'to run'

tar	tar	-	tar	tár	'rattan band for carrying basket'
wà:k	wà:k	wà:k	wà:k	wà:k	'earthworm'
wà:k	wà:k	-	hwà:k	wá:k	'to be chipped'
wàt	wàt	wàt	wàt	wàt	'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 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 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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