Consonant Cluster and Syllabic Structure in Khoibu

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Abstract:

   This paper is a description of consonant cluster and syllabic structure of Khoibu, a Tibeto-Burman language, which is also known as Uipo. According to Grierson's linguistic survey of India, this language belongs to the Kuki Chin Naga group of Tibeto Burman family. It is spoken mainly in the Machi sub-division of Chandel district of Manipur. It has a population of around 2,800 approximately. The literal meaning of this tribe is derived from 'khoi' and 'pu', where 'khoi' means 'bee' and 'pu' means 'owner'. The present paper is an attempt to look at the consonant clusters and syllabic structures of Khoibu. The present paper is divided into two parts. Part one deal with consonant clusters and in the second part the syllabic structure of Khoibu is discussed. There are two types of cluster formation in the language; initial and medial cluster formation. Generally initial cluster in Khoibu are formed by combining voiceless alveolar unaspirated stop /t/ or voiceless alveolar aspirated stop /tʰ/ with lateral /l/ or trill /r/. Similarly, medial cluster also formed by combining /t/ or /tʰ/ with /l/ or /r/. Two types of syllables are found in Khoibu viz. major and minor. All vowels can occur in the final position of an open monosyllabic word except the vowel phoneme /ə/ and all consonant phonemes can occur in the onset position of the open syllable. All voiceless unaspirated stops and nasal consonants can occur in the syllable final position.

Key words: consonant cluster, syllabic structures, Khoibu

1. Introduction

The present paper is an attempt to look at the consonant clusters and syllabic structures of Khoibu, a Tibeto-Burman language, belongs to the Kuki Chin Naga group of Tibeto-

Burman family. It is spoken mainly in the Machi sub-division of Chandel district[1] which is 64 km. away from Imphal and lies in the south-eastern part of Manipur at 24°40' N Latitude and 93°50' E Longitude and its neighbors are Myanmar (erstwhile Burma) on the south, Ukhrul district on the east, Churachandpur district on the south and west, and Thoubal district on the north.

The following analysis is based on a lexicon containing around 1000 words which I elicited from Mosyel Syelsaangthyel Khaling (50 years), a native speaker of Khoibu from Khamsing village and some additional data from Donyaisen Hongsha (37 years) a native speaker of Khoibu from Khoibu Khullen. The present paper is divided into two parts. Part one deal with consonant clusters and in the second part the syllabic structure of Khoibu is discussed. There are 18 consonant phonemes, viz. /p, b, t, d, c, k, p^h, t^h, k^h, m, n, ŋ, s, l, r, w, y, h/. There are two types of cluster formation in the language; initial and medial and the final cluster is absent.


Map of India showing Manipur

Map of Manipur Showing Chandel district

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[1] This paper is the improve version of the article which was presented at 34th All India Conference of Linguists, NEHU, India. There are eight Khoibu villages in Manipur viz. Khoibu Khullen, Biyang, Yamolching, Nungourok, Khamsing, Salemram, Thallem and Thawai. Among the villages Khoibu Khullen is the oldest village.

DISTRICT COUNCIL CONSTITUENCY MAP IN RESPECT OF MACHI SUB-DIVISION 2010
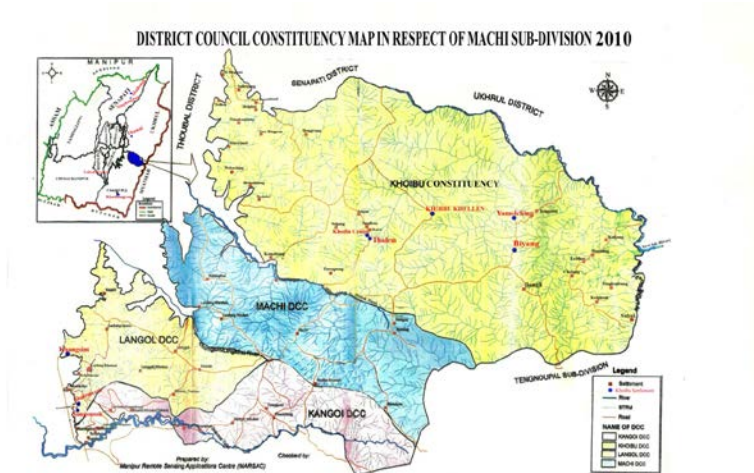
2. Consonant Cluster

The cluster formations in Khoibu are very limited like other languages of the family. The pattern of cluster may vary from those of other languages of the World. The analysis reveals that there are two types of cluster formation in the language; initial and medial[2]. There are 18 consonant phonemes in Khoibu, out of which only stops and liquids can form initial and medial clusters. The first member is always a stop and the second member is a liquid. The striking feature of this language is, out of 18 consonant phonemes, only the stops */t/* or */tʰ/* constitutes as the first member and liquids */l/* or */r/* constitute as the second member which fused to form initial and medial cluster maintaining a similar way of pattern.

2.1 Initial cluster
Initial clusters are formed by combining /t/ or /tʰ/ with /l/ or /r/. Generally initial cluster in Khoibu are formed by combining voiceless alveolar unaspirated stop /t/ or voiceless alveolar

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[2] Two types of cluster are found in the Khoibu and the final cluster is absent.

aspirated stop /tʰ/ with lateral /l/ or trill /r/.

Stops (unaspirated) + liquids

t+l	>	*tl*	>	*/tlou/*	'language'
				/tlaŋləm/	'highway'
				/tlaipəŋ/	"World"
t+r	>	*tr*	>	*/tran/*	'mosquito'
				/trim/	'needle'
				/trinra/	'disperse'

Stops (aspirated) + liquids

tʰ+l	>	*tʰl*	>	*/tʰleŋ/*	'forever'
				/tʰloŋ/	'bridge'
				/tʰlou/	'duty'
tʰ+r	>	*tʰr*	>	*/tʰrom/*	'unity'
				/tʰral/	'summer'
				/tʰri/	'tear'

2.2 Medial Cluster

In other languages the pattern of cluster is differ from initial to medial. But in Khoibu the pattern of cluster formation in medial is similar with initial.

Stops (unaspirated) + liquids

t+l	>	*-tl-*	>	*/kətlou/*	'rebuke'
				/kətla/	'far'
				/ kətlə/	'slow'
t+r	>	*-tr-*	>	*/keitra/*	'my brother (female)'
				/kətri/	'to fly'
				/tʰəŋtran/	'a kind of fly'
tʰ+l	>	*-tʰl-*	>	*/ətʰlaŋ/*	'half'
				/kətʰlaŋ/	'broken'

				/rət^{h}lən/	'sweat'
t^h+r	>	-t^{h}r-	>	/hət^{h}ru/	'pigeon'
				/kət^{h}ri/	'dismantle'
				/kət^{h}rəi/	'collection'

Khoibu has no final cluster and the prominent feature of cluster such as germination is also not possible in the language. Only two consonant is permissible to form clusters in initial and medial; three consonant clusters is not found in the language. In most of the Kuki-Chin group final cluster is rare except Kanauri and in recent Rongmei (Singh 2012).

3. Syllables

In order to establish a clear notion of syllable indeed is, many phonologists have tried to give the possible form of a syllable may be. The syllable is a very important unit. Most people seem to believe that, even if they cannot define what a syllable is, they can count how many syllables there are in a given word or sentence. If they are asked to do this they often tap their finger as they count, which illustrates the syllable's importance in the rhythm of speech.

3.1 Some notions of Syllable
- A syllable is a unit of pronunciation typically larger than a single sound and smaller than a word (David Crystal 2008).
- A syllable is described as consisting of a vocalic centre, optionally accompanied by a consonantal onset or coda, either of which may be complex (Selkirt 1982, 1999, 329; Blevisms 1995, 216).
- A syllable is vocalic unit or preceded or followed by one or more consonantal margin (Singh 2000, p.17)
- A syllable is a sequence of phonemes with one peak of sonority(A. Abbi, A.K. Mishra)

- A syllable is a unit of sound consisting of a vowel and optional consonants before or after the vowel (George Yule 2006).

In Khoibu, a syllable is a unit of pronunciation which consists of a vowel with one or more consonants. A syllable can be divided into three parts. They are 1) Onset 2) Rhyme (nucleus) and 3) Coda.
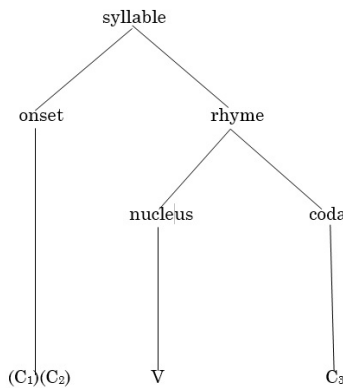
```
                    syllable


        onset                    rhyme


                    nucleus              coda



        (C₁)(C₂)        V                C₃
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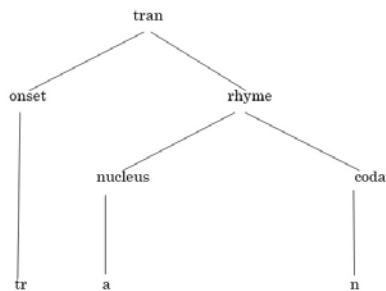**Fig -1: Khoibu syllable diagram**

3.2 Onset

It should be a consonant or semi vowel and it is the beginning of a syllable. In English all the consonant phonemes except /ŋ/ can occur as onset and the distribution of some sounds as in the case of */h/* and */ŋ/* (*/h/* is always syllable initial i.e. onset and never syllable final, and */ŋ/* is always syllable final and never syllable initial). But in Khoibu, the consonant phoneme */ŋ/* can occur in the syllable initial i.e. onset (*ŋi* "we") as well as in the syllable final i.e. coda /*roŋ* /'body' on the other hand semi vowel */y/* cannot occur as an onset in the close syllable.

3.3 Double Onset

Double onset can occur in English. Affricates are the only class of consonants that do not open in onset clusters. Besides this

general statement, there are several other restrictions for two-member onset clusters (Yavas 2006, 136). Among those restrictions, no stops or nasal are allowed as C2, except after /s/ (e.g. spin, small). But Khoibu violates such types of restriction that in Khoibu double consonant can occur as onset and end a nucleus. Most of the double onsets occur in monosyllable type. For example: a) *tran* "mosquito", b) *tra* "sisters' brother".

a) tran

```
                    tran
              ╱              ╲
        onset              rhyme
          │              ╱        ╲
          │        nucleus         coda
          │            │             │
          tr           a             n
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b) tra

```
                  tra
            ╱              ╲
       onset              rhyme
         │                   │
         tr                  a
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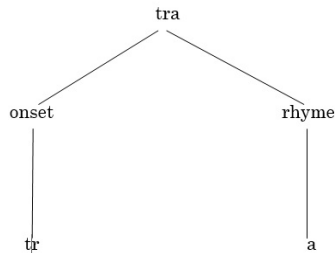
Fig.-2 : Khoibu syllable diagram with double onset

3.4 Rhyme

It is the nucleus of a syllable and it is carried by the vowel not by the consonant. The nucleus is the element that every syllable contains, and the other elements are defined in relation to it, the consonant(s) before the nucleus are onset, and the consonant(s) after the nucleus are coda. The rhyme/nucleus may be described as the most prominent part of the syllable

and is gathers by the vowels.

3.5 Coda

It is the very sound which comes after the rhyme or the consonants after the vowel (nucleus) will be considered as coda.

3.6 Types of Syllable

Khoibu has two types of syllables. They are major and minor syllables.

3.6.1 Major Syllable

Major syllable can be further divided into open and closed types. Open syllables are made up of an optional simple or complex consonant onset, an obligatory simple vowel nucleus. Khoibu syllable can exist without an onset and coda. It means that it is not obligatory for a syllable to be well formed with an onset or a coda. There are some instances of syllable well formed of just a vowel nucleus.

| #V# | /á/ | 'he' |
| | /í/ | 'they' |

The Khoibu onset may be a single consonant or a cluster of two consonants. In Khoibu there may be well formed monosyllabic words without coda which give rise to two types of syllables

1) Simple onset (CV#)
2) Complex onset (CCV#).

1) Simple onset –

CV#	/hǐ/	'blood'
	/pɑː/	'father'
	/lɑː/	'song'

2) Complex onset –

| CCV# | /tʰroˉ/ | 'thin' |
| | /tʰrí/ | 'tear' |

It is not possible to accommodate more than two consonants in

initial cluster.

3.6.2 Minor syllable

Minor syllables cannot stand alone. Minor syllables may have a wide range of consonant initials or simply a single vowel, /ə/ or /a/. In minor syllables, the initials are generally restricted to /p, t. k, m, n, c, s, l, r, y, w/. The aspirated consonants /pʰ, tʰ, kʰ/ are also attested in minor syllables in native Khoibu words.

ə-   This is the most common minor syllable of all and occurs in many different contexts. It has also occurring with the tree and its associates. The ə- minor syllable is illustrated in the below:

/ə̄bán/	'branch'
/əpā̄m/	'trunk'
/ə̄bə́ŋ/	'front'
/ərà/	'tool edge'
/əcí/	'horn'
/ədí/	'stool'
/əpā̄l/	'brim'

kə-   This is the second most common minor syllable. As mentioned above, it is common to find it appearing before the verbal nouns. However, it can also occur in a wide variety of other contexts. The kə- minor syllable is illustrated in the following examples:

/kətək/	'to jump'
/kətəm/	'to do something'
/kəhəp/	'sprinkle'
/kəhəm/	'spread'
/kəhən/	'to weed'
/kəhər/	'difficulty'
/kəkən/	'to reserve'
/kələm/	'to measure'
/kəna/	'to wear'

kʰə-   Among the aspirated consonants this is the very common consonant which can occur in the various different contexts. The minor kʰə- is illustrated in the following

examples:

/kʰəla.ŋ/	'corpse'
/kʰəbòr/	'cough'
/kʰəna/	'ear'
/kʰəriŋ/	'intestine'
/kʰəra.k/	'throat'
/kʰəra.n/	'necklace'
/kʰəluŋ/	'insect'

tə-   This is the third most common minor syllable. The occurrences of this syllable with nouns are much more common than with verbs. The tə- minor syllable is illustrated in the following examples:

/təka/	'mouth'
/təpul/	'fireplace'
/təŋsi/	'knife'
/təmpa/	'berry'
/təso/	'oak'
/təsək/	'bug'
/təpei/	'walking stick'
/təsei/	'rice'

tʰə-   This is the second largest occurring minor among the aspirated consonants. The tʰə- is illustrated in the following examples:

/tʰəru/	'bone'
/tʰəmi/	'human'
/tʰəlei/	'land'
/tʰəŋa/	'fish'
/tʰəleibè/	'groundnut'
/tʰəlei/	'floor'
/tʰəleipʰu/	'earthen pot'

sə-   This is the fourth most common minor syllable. The sə- minor syllable is illustrated in the following examples:

/səpuk/	'horse'
/sətèn/	'tumor'
/səŋai/	'antler'
/sənò/	'lime'

/səpaːl/	'straw'
/səreːk/	'oil'
/səra/	'orphan'

cə-   This syllable is the least frequent of all. Words with ca-initial minor syllable are illustrated in the following examples:

/caːpa/	'dragonfly'
/cabəm/	'spike'

pa-   This minor mostly occur with the kinship terms. This minor occurs with the chronological order of the paternal uncles. It also attests with the names of the flora in the Khoibu native words.

/pasi/	'a mushroom'
/patei/	'grand-father'
/pamo/	'1st paternal uncle'
/pako/	'2nd paternal uncle'
/pate/	'3rd paternal uncle'
/pami/	'4th paternal uncle'
/pame/	'5th paternal uncle'
/patol/	'6th/last paternal uncle'

pʰə-   This minor occur with the most of common nouns which includes the shirts and its associates and different types of snakes. The minor pʰə- is illustrated with the following examples:

/pʰəyunbur/	'bladder'
/pʰəyun/	'urine'
/pʰərik/	'shirt'
/pʰərunha/	'fang'
/pʰərunlù/	'hood'
/pʰərun/	'snake'
/pʰə̄rà̀/	'winnowing fan'

nə-   This minor occurs with the human nouns and kinship terms. This minor is prefix to all the kinship terms associated with the blood relation of sister in order of its birth chronology. It is illustrated in the following examples:

/nəŋak/	'bridegroom'

/nəsən/	'childhood'
/nəpui/	'female'
/nəpa/	'man'
/nayal/	'earring'
/nate/	'1st sister'
/nato/	'2nd sister'
/nətuŋ/	'3rd sister'
/naku/	'4th sister'
/nalei/	'5th/last sister'

mə-   This is the seventh most common syllable. It occurs mostly with nature nouns and its associates. It can also attest with the birds and fruit. The mə- minor syllable is illustrated in the following examples:

/məsəŋkin/	'rainbow'
/məla/	'ray'
/məkərək/	'a fruit'
/məlaŋ/	'a wild bird'
/məriŋ/	'god'

hə-   This syllable occurs only with the different names of bird nouns, as illustrated in the following examples:

/həsək/	'sparrow'
/hətʰru/	'dove'
/həya.ŋhui/	'fir'

lə-   This syllable appears very less in my corpus. The minor lə- is illustrated in the following examples:

/ləkʰaŋ/	'pillow'
/ləpakca/	'small container'
/ləkoi/	'ringworm'

rə-   This minor syllable can occur in different context. It is illustrated in the following examples:

/rəcuŋ/	'boil'
/rəloy/	'buffalo'
/rətəi/	'bracelet'
/rəpəl/	'fence'
/rəkol/	'garden'
/rəwət/	'leech'
/rəlĭm/	'shadow'

ya-   This syllable occurs with animal and bird nouns. The ya-minor syllable is illustrated in the following examples:

/yəcapa/   'duck'
/yəca/   'deer'
/yətʰir/   'mouse'
/yətʰəlei/   'porcupine'

wa-   This syllable mainly occurs with the chicken and its associated terms. The minor wa- is illustrated in the following examples:

/wapa/   'cock'
/wanər/   'beak'
/wayui/   'egg'
/wapa/   'capon'
/waca/'chick'

There are some words which are constituted with two initial minor syllables. Words with two minor syllables in the initial position are illustrated below:

/haməni/   'gum'
/nakəpòr/   'nostril'
/yakʰəmun/   'wool'
/rəyamən/   'wage'
/yamətʰin/   'claw'
/warəbu/   'nest'

2.2.1.1 Open Syllable
Except the vowel phoneme /ə/, all the vowels can occur in the final position of an open monosyllabic word.

Onset	Rhyme	
C	V	
h	i	'blood'
b	e	'beans'
p	a	'father'
pʰ	o	'shield'
pʰ	u	'pot'

Similarly, all consonant phonemes can occur in the onset

position of the open syllable.

p	a	'father'
pʰ	u	'pot'
b	a	'some'
t	e	'eldermost daughter'
tʰ	a	'few'
d	i	'stool'
k	o	'second son'
kʰ	e	'a kind of tree'
s	a	'wing'
h	a	'tooth'
č	a	'paddy'
m	e	'5th son'
n	a	'nose'
ŋ	i	'we'
l	a	'song'
r	o	'bamboo
w	a	'axe'
y	a	'animal'

3.6.3 Close syllable

All voiceless, unaspirated stops and nasal consonants can occur in the syllable final position.

Onset	Rhyme	Coda	
d	o	p	'brain'
m	i	t	'eye'
pʰ	ə	k	'mat'
č	i	m	'house'
b	o	n	'guard jar'
r	o	ŋ	'body'
d	a	r	'shoulder'
h	ə	l	'cow'

Except velar nasal /ŋ/ and palatal semi vowel /y/, all the consonant phonemes occur in the syllable initial position of close syllable.

Onset	Rhyme	Coda	
p	a	r	'flower'
pʰ	a	l	'name'
b	u	ŋ	'hill'
t	e	p	'drop'
tʰ	o	r	'ice'
d	a	ŋ	'balcony'
k	a	p	'a measure of thumb and middle finger'
kʰ	o	m	'pit'
s	ə	n	'husband'
č	a	k	'food'
m	ə	l	'guest'
n	ə	r	'lips'
h	o	k	'pig'
l	ə	l	'treasure'
r	ə	m	'land"
w	o	l	'direction'

3.7 Syllabic Pattern

There are six monosyllabic patterns in Khoibu. It may contain only a vowel, consonant and vowel and consonant. They are given as in below:

1. V
   /á/   'he'
   /ǐ/   'they'

2. CV
   /pá/   'father'
   /nù/   'mother'
   /lɑː/ 'song'
   /pù/   'maternal uncle'

3. VC
   /úm/   'god'
   /ə́n/   'curry'
   /úk/   'belly'

		/o.n/	'money'
4.	CVC	/par/	'flower'
		/bùn/	'hut'
		/cĭm/	'house'
		/rə̀m/	'land'
5.	CCV	/tʰri/	'tear'
		/tʰrò/	'thin'
6.	CCVC	/tran/	'mosquito'
		/trĭm/	'needle'
		/tʰrĭm/	'altogether'
		/tʰlèŋ/	'forever'

In addition to the above mention syllabic pattern Khoibu have other pattern also

Disyllabic	-	/pʰunco/	'brinjal'
Trisyllabic	-	/cəŋalnəm/	'sweet gourd'
Tetrasyllabic	-	/məroksino/	'chilli'
Pentasyllabic	-	/əwaməcəŋheí/	'papaya'

Conclusion

This paper briefly shows the consonant cluster and syllabic structure of Khoibu. In Khoibu there are two types of cluster; initial and medial. The first member is always a stop and the second member is a liquid. Final cluster is absent. We have found that all vowels can occur in the final position of an open monosyllabic word except the vowel phoneme /ə/ and all consonant phonemes can occur in the onset position of the open syllable. There are six syllabic patterns in Khoibu. Consonant cluster and syllabic structure plays an important role in the phonology of Khoibu.

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