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東京外国語大学アジア・アフリカ言語文化研究所
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The Phonology of Thangmi: A Tibeto-Burman Language of Nepal

TURIN, Mark
University of Cambridge

The Thangmi (Nepali Thāmī) are an ethnic group who number at least 35,000 and inhabit the central eastern hills of Nepal. The Thangmi claim to be autochthonous to the upper reaches of Dolakhā district as well as to the eastern valleys of Sindhupalchok district, and they speak a Tibeto-Burman language which has two distinctly recognisable and mutually unintelligible dialects. The greatest concentration of ethnic Thangmi and speakers of the language are in these two districts.

The Thangmi language most probably occupies a genetic position somewhere between the Kiranti or ‘Rai’ group of languages spoken in the east of Nepal, and the Newar language as spoken in Dolakhā bazar and around the Kathmandu valley. The Thangmi language exhibits certain grammatical features reminiscent of the Kiranti languages (Turin 1998), but has a lexicon more closely allied to Newar (Turin 2000b).

This article focuses on the phonology of the Dolakhā dialect of Thangmi. Thangmi distinguishes six monophthongal vowels which represent three grades of vowel height and three steps on the front-back scale. Thangmi exhibits no contrast between short and long vowels, but does distinguish seven diphthongs. Although Thangmi boasts more vowel diphthongs than monophthongs, diphthongs occur infrequently in native Thangmi words. They are more common, however, in open-stem verbs borrowed from Nepali. Nasalised vowels are not a distinctive feature of Thangmi phonology and the language attests only a handful of lexemes with nasalised vowels, none of which can be contrasted with non-nasalised vowels.

The Thangmi consonant inventory comprises of five series of obstruents across five distinctive and contrastive points of articulation (bilabial, dental, palatal, retroflex and velar), each of which includes an unaspirated voiceless, an aspirated voiceless, an unaspirated voiced and a breathy member. The Thangmi consonant system further includes a series of nasals at four points of articulation, one glottal stop, one fricative, one trill, one lateral and three approximants. Apart from the glottal stop, all consonants are attested in word-initial position.

In Thangmi, stress is non-distinctive, prosodic and relatively unpronounced. Unless otherwise indicated, all Thangmi words are stressed on the first syllable. The phonological word consists of one or more syllables, the borders of which are determined by the rules of Thangmi syllable structure and type. The canonical syllable structure observed for Thangmi lexical items may be schematised as follows: (C_g) (G) V (C_g)

Thangmi does not permit sequences of consonants in syllable-final position. At syllable breaks in Thangmi words, consonant clusters are attested in so far as they involve the closed coda of one syllable and a consonant initial in the following segment. Certain Thangmi vowels are lengthened for emphasis or as the result of bearing the prosodic accent of a clause or sentence. These lengthened

Keywords: Nepal, Himalaya, Phonology, Linguistics, Language
vowels occur primarily in adjectives, adverbs and interjections when the speaker intends to convey an intensified feeling or emotion.

1. Introduction

The Thangmi (Nepali Thâmî) are an ethnic group who number at least 35,000 and inhabit the central eastern hills of Nepal. The Thangmi claim to be autochthonous to the upper reaches of Dolakhâ district as well as to the eastern valleys of Sindulpâlcok district, and they speak a Tibeto-Burman language which has two distinctly recognisable and mutually unintelligible dialects. The greatest concentration of ethnic Thangmi and speakers of the language are in these two districts.

Thangmi most probably occupies a genetic position somewhere between the Kiranti or ‘Rai’ group of languages spoken in the east of Nepal, and the Newar language as spoken in Dolakhâ bazaar and around the Kathmandu valley. The Thangmi language exhibits certain grammatical features reminiscent of the Kiranti languages (Turin 1998), but has a lexicon more closely allied to Newar (Turin 2000b). A point worthy of note is that the Thangmi feel next to no affinity to the Rai-Kiranti peoples living to their east, but talk rather of cultural, social and linguistic associations with the Newar of Dolakhâ and the Kathmandu valley beyond.

There is also a Thangmi community in north-eastern India, largely concentrated in and around Darjeeling, which is the product of an emigration earlier this century from high-altitude villages in Dolakhâ. According to the Ethnologue of the Summer Institute of Linguistics (Grimes 1978), there is also a Thangmi-speaking population in Tibet, although I was unable to verify this interesting proposition on a recent trip to Tibet (summer 2003).

The topic of this article is the phonology of the Dolakhâ dialect of Thangmi. The full inventory of Thangmi phonemes is given in Table 1 below.

A phoneme is defined as the smallest contrastive unit in the Thangmi sound system, with the qualification that a phoneme may exhibit a range of acoustic values which are treated as equivalent by the Thangmi speech community. A phoneme is therefore not a discrete sound segment with clearly defined boundaries, but rather one of a set of speech sounds which serve to distinguish one word from another. An allophone, on the other hand, is a phonetic variant of a phoneme and may be defined
as one of several speech sounds that are regarded as contextual or environmental variants of the same phoneme.

The structure of this article is as follows: in Section §2, I discuss the vowel phonemes and allophones, their limited nasality, and offer a list of contrastive minimal pairs. In Section §3, I discuss consonant phonemes and their allophones and provide a list of minimal pairs. In Section §4, I focus on phonotactics, stress, syllable structure and consonant clusters, and in Section §5, I address prosodic lengthening. In Section §6, I discuss the phonology of Nepali loans, while in Section §7, I explain the orthography and the motivations that have informed my decisions and choices in presenting the phonology of Thangmi.

2. Vowels

2.1 Overview of vowel phonemes

Thangmi distinguishes six monophthongal vowels /i/, /u/, /e/, /o/, /a/, /â/ which represent three grades of vowel height and three steps on the front-back scale. Thangmi exhibits no contrast between short and long vowels, but does distinguish seven diphthongs /ei/, /ai/, /oi/, /ui/, /eu/, /au/, /ou/. In the following sub-sections, I describe the distribution of Thangmi phonemes and their allophones by contrasting
minimal and near minimal pairs.

2.2 Monophthongs and their allophones

The phoneme /i/ is a short, unrounded, high front vowel [i], with a lowered or retracted allophone [ɨ] in closed syllables:

\[
\begin{align*}
cici & \quad \text{meat} \\
[t\dot s\dot t\dot s] \\
tim & \quad \text{mortar} \\
[t\dot m] \\
lisa & \quad \text{to scatter, to broadcast} \\
[l\acute{\i}\grave{\a}] \\
\end{align*}
\]

The phoneme /u/ is a short, closed, rounded high back vowel [u]:

\[
\begin{align*}
pur & \quad \text{nipple} \\
[p\acute{\i}] \\
u lam & \quad \text{path, road, way} \\
[u\grave{\text{a}m}] \\
\end{align*}
\]

The phoneme /e/ is variously realised by Thangmi speakers. In general, older and monolingual Thangmi speakers realise /e/ as a short, mid-open, unrounded front vowel [e], while younger Thangmi speakers who are bilingual in Nepali pronounce /e/ with slightly more closure, as [ɛ]:

\[
\begin{align*}
elepe & \quad \text{spleen} \\
[\acute{\alpha}\acute{\ell}\acute{\e}p\acute{\e}] & \quad \text{(elepe - elepe)} \\
\end{align*}
\]

\[
\begin{align*}
ahel & \quad \text{garuga, Garuga pinnata} \\
[a\acute{\text{fi}}\acute{\ell} - a\acute{\text{fiel}}] & \quad \text{(ahel)} \\
\end{align*}
\]

The phoneme /o/ is usually realised as a short, mid-closed, rounded, back vowel [o], particularly in open syllables. In closed syllables, the phoneme /o/ has a mid-open realisation as [ɔ]:

\[
\begin{align*}
o bo & \quad \text{white} \\
[o\grave{\text{b}}o] \\
\end{align*}
\]
The phoneme /a/ is variously realised by Thangmi speakers. In general, older and monolingual Thangmi speakers realise /a/ as a short, open, unrounded, front vowel [a], while younger Thangmi speakers who are bilingual in Nepali pronounce /a/ with slightly more closure, as in the English [æ] in cat.

\[alak\] small wooden or bamboo foot bridge
[alak˘-ælæk˘]

\[cahuca\] man, men-folk
[tsæfiutsa-tsæfiutsæ]

The phoneme /â/ has varying realisations from speaker to speaker, perhaps on account of its infrequent occurrence. Most commonly, the phoneme /â/ is pronounced as a short, open, unrounded, back vowel [A], but in the speech of some Thangmi speakers it is given more closure and rendered as [ø]:

\[âlâmtha\] far, distant
[alâmtha-âlâmtha]

\[jârâme\] the spirit of death
[dzårâme-dzårme]

The Thangmi phonemes /â/ and /a/ correspond to what are often, albeit erroneously, referred to as the ‘short’ and ‘long’ /a/ of Nepali. Although these two Nepali vowel phonemes are qualitatively distinct from one another in timbre and vowel quality, following accepted and traditional Indological transcription they are rendered as a and ā respectively, as in Nepali pani ‘also’ versus pânī ‘water’. In my chosen orthography for Thangmi, these words would be represented as pâni and pani.

### 2.3 Diphthongs and their allophones

Although Thangmi boasts more vowel diphthongs than monophthongs, diphthongs occur infrequently in native Thangmi words. They are more common, however, in open-stem verbs borrowed from Nepali, as in Thangmi ghumaisa ‘to turn around, show around’ from Nepali ghumâunu ‘to turn around, show around’ and banaisa ‘to make’, from Nepali banâunu ‘to make’. Diphthongs are attested in a handful of indigenous Thangmi forms, in which they have the same length as a monophthongal vowel. The criterion of length provides the justification for analysing these vowel forms as diphthongs rather than as vowel sequences or chains.
The diphthong /ei/ commences as a mid-open, unrounded front vowel [ɛ] and concludes with the unrounded, front retracted allophone [i]. In natural allegro speech, the diphthong /ei/ is occasionally realised close to the mid-open, unrounded front vowel [ɛ].

\[ kheisa \quad \text{to pour, be poured} \]
\[ [k\text{he}i\text{s}\text{a}] \]

\[ koko\text{teisa} \quad \text{to become stiff from cold, become numb} \]
\[ [koko\text{te}i\text{s}\text{a}] \]

The diphthong /ai/ starts as a slightly advanced, short, open, unrounded, back vowel [ɑ] and ends with the short, unrounded, front retracted allophone [i]:

\[ adhai \quad \text{cucumber, } \textit{Cucumis sativus} \]
\[ [\text{ad}h\text{a}i] \]

\[ aikuca \quad \text{long, slightly curved knife, } \textit{khukurī} \]
\[ [\text{ai}ku\text{ca}] \]

\[ aspaisa \quad \text{to throw something violently, smash} \]
\[ [a\text{spa}i\text{s}\text{a}] \]

The diphthong /oi/ starts as a short, mid-open, rounded, back vowel [ɔ] and ends with the short, unrounded, front retracted allophone [i]:

\[ joisa \quad \text{to leak, penetrate} \]
\[ [\text{dz}ɔi\text{s}\text{a}] \]

\[ coi \quad \text{blood} \]
\[ [tsɔi] \]

\[ roimi \quad \text{a Newar person} \]
\[ [rɔими] \]

The level diphthong /ui/ starts as a short, closed, rounded, high back vowel [u] and ends with the short, unrounded, front retracted allophone [i]:

\[ chyuituk uyu \quad \text{a small black rodent which lives in holes, mole} \]
\[ [tsʰju\text{t}u\text{k} u\text{yu}] \]
luisa to become flaccid (particularly of a penis) 
[luũsa]

mui a banana, *Musa x paradisiaca* 
[muũ]

The diphthong /eu/ occurs only twice in the whole Thangmi lexicon. The diphthong commences as a short, mid-open, unrounded front vowel [e] and concludes with a slightly advanced short, closed, rounded, high back vowel [u]:

deusal matches [Sindhupâlcok dialect only] 
[ɗeũṡal]

ghâneusa to burp 
[ɡeŋũsãa]

The diphthong /au/ starts as a short, open, unrounded, back vowel [a] and ends with a short, closed, rounded, high back vowel [u]:

câlauni moon 
[tśalauni]

rulau cockroach 
[rulau]

The level diphthong /ou/ starts as a short, mid-open, rounded, back vowel [ɔ] and ends with a short, closed, rounded, high back vowel [u]:

aprou tump line or head strap for carrying a load 
[apṟu]

jyousa to burn wood, roast something 
[ʣjũsã]

The diphthongs /ei/, /ai/ and /ui/ are particularly associated with emphatic function or intensified meaning in Thangmi, perhaps mirroring the Nepali emphatic marker <-ai> (EMP). The diphthong /ei/, for example, is attested in Thangmi sakalei ‘all, each, every, everything, totally’ which is itself loaned from Nepali sakal ‘all, every’. Likewise, the diphthong /ai/ is often associated with emphatic meaning in Thangmi, as in the adverb choncai ‘fast, quickly’, and the adjective begalai ~ begale ‘other’ from Nepali beglo ‘other’. Finally, the Thangmi diphthong /ui/ is also associated with em-
phatic meaning on at least one occasion, as in *ayehui* ‘very much (emphatic)’ attested in the Sindhupâlcok dialect, from Thangmi *aye ~ ahe* ‘very’. In this instance, <-ui> occurs as a suffix indicating an intensified feeling.

Diphthongs are particularly common in loans from Nepali. Two co-occurring monophthongs in Nepali may give rise to a diphthong in Thangmi. For example, while Nepali *makai* ‘corn, maize’ has two syllables and Nepali *malâî* ‘to me’ has three syllables, both forms are disyllabic in Thangmi (creating a minimal pair), using the diphthong /ai/: 

\[
\begin{align*}
mákai & \quad \text{corn, maize (from Nepali makai)} \\
[måkai] & \\
mâlai & \quad \text{to me, for me (from Nepali malâî)} \\
[målai] & 
\end{align*}
\]

### 2.4 Nasality

Nasalised vowels are not a distinctive feature of Thangmi phonology. Thangmi attests only a handful of lexemes with nasalised vowels, none of which can be contrasted with non-nasalised vowels. Nasality is more pronounced in the Sindhupâlcok dialect of Thangmi, and most of the examples I present below are therefore drawn from this speech area. Moreover, as seen in the following examples, nasalised vowels occur primarily in onomatopoeic or reduplicative expressions and interjections:

\[
\begin{align*}
\textit{ádai} & \quad \text{yes, uh-huh} \\
[\textit{á}d\textit{uai}] & \\
\textit{he?ê} & \quad \text{yes, uh-huh [Sindhupâlcok dialect]} \\
[\textit{he?ê}] & \\
\textit{hî?îkote} & \quad \text{over there [Sindhupâlcok dialect]} \\
[hî?îkòte] & \\
\textit{khoîkhoîsa} & \quad \text{to cough [Sindhupâlcok dialect]} \\
[khîkôîså] & \\
\textit{hûhûissa} & \quad \text{to writhe in pain, squirm} \\
[hûhûiså] & 
\end{align*}
\]

---
1) See Rutgers (1998, p. 15) for a similar discussion on nasality in Yamphu. Although minimal pairs for the nasal/non-nasal distinction are not attested in Thangmi, there remains a possibility that nasality is nevertheless distinctive. For the present discussion, however, I regard nasality as non-distinctive, believing the burden of proof to be in my favour.
In a few Thangmi lexemes, nasalised vowels occur in free variation alongside their non-nasalised counterparts. It should be noted, however, that these instances invariably co-occur with the voiced, dorso-velar nasal continuant [ŋ]. In such cases, vowel nasalisation may be the result of assimilation to the nasal phoneme, as in the following examples:

- \( ciŋya \sim cɨyā \sim cɨja \) nose
  \[ [tsɨŋja -tsɨjā -tsɨŋa] \]
- \( saŋa \sim sāwā \) finger millet, *Eleusine coracana*
  \[ [šaŋa -šāwā] \]
- \( ɲyasā \sim ɲyāsa \) to rot, become rotten, suppurate
  \[ [ɲjaśa - ɲjaśa] \]

Thangmi has only three lexemes with nasalised vowels which do not occur in free variation with non-nasalised vowels. Two of these forms are attested in the Sindhupālcok dialect area only. The nasalised short, mid-closed, rounded, back vowel [o] in *phōŋok* \[ pʰōŋok' \] ‘inflated, swollen’, which is also attested in Dolakhā, results from assimilation to the following retroflex nasal:

- \( bhaįse \) tomorrow [Sindhupālcok dialect]
  \[ [bʰaŋse] \]
- \( kįyabat \) in three days [Sindhupālcok dialect]
  \[ [kįjaBAT] \]
- \( phōŋok \) inflated, swollen, squasy (especially used to describe people’s noses)
  \[ [pʰōŋok'] \]

### 2.5 Vowel minimal pairs

The distinctive quality of vowel height and lip rounding is illustrated by the following chart of minimal and near minimal pairs:

- /i/ vs. /u/ \( nini \) ‘paternal aunt, father’s sister’, \( nunu \) ‘milk’; \( thisa \) ‘to touch’, \( thusa \) ‘to pull up weeds’.
- /i/ vs. /e/ \( irir \) ‘totally stuffed of food’, \( ere \) ‘ball made of ground grain used in the death rite (ritual language)’; \( lîsa \) ‘to scatter, broadcast’, \( lesa \) ‘to select’.
- /i/ vs. /o/ \( ili \) ‘a species of house-dwelling gecko’, \( oli \) ‘four’; \( nisa \) ‘to see’, \( nosa \) ‘to stir food, serve’; \( cici \) ‘meat, flesh’, \( cyocyo \) ‘female
breast'.

/i/ vs. /a/

/i/ vs. /å/

/u/
yu ‘black-mouthed, white-bodied and long-tailed white monkey’, uyu ‘mouse’.

/u/ vs. /e/
umansa ‘to cook, prepare food’, emsa ‘to be exhausted by sitting in the sun’; thumsa ‘to bury’, themsa ‘to break’; suwa ‘tooth’, sewa ‘greetings, hello’.

/u/ vs. /o/
tupsa ‘to husk rice or millet in a mortar’, topsa ‘to wash clothes by beating them’; ulum ‘the upper part of a grinding stone’, olon ‘milk, yoghurt’.

/u/ vs. /a/
uma ‘wife’, ama ‘mother’; cuksa ‘to insert, pour into’, caksaa ‘to cover, patch or overlay bamboo when there are holes’.

/u/ vs. /å/
culi ‘goat’, câlauni ‘moon’; duru ‘earthquake’, dårî nunu ‘cow or buffalo milk used in the death rite (ritual language)’.

/e/ vs. /o/
leksa ‘to swallow’, loksa ‘to drain’; melsa ‘to roast millet prior to grinding’, molsa ‘to mix in, stir up’.

/e/ vs. /å/
erë ‘ball made of ground grain used in the death rite (ritual language)’, ari ‘fear’; nem ‘house’, nam ‘name’; ren ‘flower’, ran ‘dry or unirrigated field’.

/e/ vs. /e/
lepe ‘spleen’, âlâmtha ‘far, distant’; kerepsa ‘to cry, weep’, kărainsa ‘to call out, be hungry’.

/o/ vs. /a/
onçol ‘Adam’s apple’, açal ‘shame, embarrassment’; donj ‘intestines, Brahman’, daïs ‘to look for, search, seek’.

/o/ vs. /å/
kotale ‘under, below’, kâtara ‘trough, tray’.

/a/
nan ‘you’, nas ‘fish’.

/a/ vs. /å/

/ei/ vs. /e/
khëisa ‘to pour’, khemsaa ‘to make, build’.

/ai/ vs. /au/
ai ‘pus’, au ‘mango’.

/oi/ vs. /i/
joisa ‘to leak, jisa ‘to chop, split’; coï ‘blood’, cile ‘tongue’; roimi ‘a Newar person’, rim ‘homemade beer drunk during death rite (ritual language)’.

/ui/ vs. /u/
luisa ‘to become flaccid’, lunsa ‘to climb, ride’; mui ‘banana’, mus ‘body hair’.

/ui/ vs. /i/
luisa ‘to become flaccid’, lisa ‘to scatter, broadcast’; mui ‘banana’, mi ‘person’.
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/eu/ vs. /e/    deusal ‘matches’, dese ‘village’.
/au/   rulers ‘cockroach’, rul ‘snake’.
/au/ vs. /a/    au ‘mango’, ayu ‘pine-marten, Martes flavigula’.
/au/ vs. /ou/    cadaun ‘moon’, calou ‘wild nettle’.
/ou/ vs. /a/    aprou ‘tump line, head strap’, apraca ‘good’.
/ou/ vs. /o/    jyousa ‘to burn wood’, jyoksa ‘to be burnt’.

3. Consonants

3.1 Overview of consonant phonemes

Thangmi consonant phonemes are presented in Table 1 above following an Indological ordering, and are shown in Table 2 below according to phonetic features.

Table 2. Thangmi Consonant Phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>dental</th>
<th>palatal</th>
<th>retroflex</th>
<th>velar</th>
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<tbody>
<tr>
<td>voiceless</td>
<td>p</td>
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<td>d̥</td>
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<td>breathy voiced</td>
<td>bh</td>
<td>dh</td>
<td>jh</td>
<td>d̥h</td>
<td>gh</td>
</tr>
<tr>
<td>nasal</td>
<td>m</td>
<td>n</td>
<td>η̣</td>
<td>η̣</td>
<td>( ? )</td>
</tr>
<tr>
<td>glottal</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>fricative</td>
<td></td>
<td>s</td>
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<tr>
<td>trill</td>
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<td>r</td>
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</tr>
<tr>
<td>lateral</td>
<td></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximant</td>
<td>w</td>
<td>y</td>
<td>h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Thangmi consonant inventory comprises of five series of obstruents across five distinctive and contrastive points of articulation (bilabial, dental, palatal, retroflex and velar), each of which includes an unaspirated voiceless, an aspirated voiceless, an unaspirated voiced and a breathy member.\(^2\) The Thangmi consonant system further includes a series of nasals at four points of articulation, one glottal stop, one fricative, one trill, one lateral and three approximants. Apart from the glottal stop /ʔ/, all consonants are attested in word-initial position.

\(^2\) Following van Driem (1993, p. 52), I have opted for the term ‘breathy voiced plosive’ rather than ‘voiced aspirate’ to describe the series /bh/, /dh/, /jh/, /d̥h/, /gh/. While it has become a tradition in linguistics to refer to such plosives as ‘voiced aspirates’, particularly for South Asian languages, the label is misleading since they are often neither voiced nor aspirated. See van Driem (1993, p. 52) for the evidence and discussion.
3.2 Obstruents and their allophones

3.2.1 Velar stops

The phoneme /k/ can occur in all positions in the Thangmi word or syllable. In word-initial, syllable-initial and intervocalic positions, the phoneme /k/ is a voiceless, unaspirated dorso-velar stop [k]:

- *kapu*  
  [kapu]  
  head

- *aŋkalak*  
  [aŋkalak]  
  brown-green coloured lizard

- *lakaŋe*  
  [lakaŋe]  
  radish, *Raphanus sativus*

- *cikinsa*  
  [tsiknša]  
  to give someone a fright

Word-finally, the phoneme /k/ is a voiceless, unreleased, unaspirated dorso-velar stop [k] in the Dolakh dialect and either completely glottalised [ʔ] or a voiceless, unreleased, unaspirated dorso-velar stop with a simultaneous glottal stop [ʔk] in the Sindhupâlcok dialect:

- *akrak*  
  [akrak]  
  frog [Dolakh dialect]

- *akrak*  
  [akrak]  
  frog [Sindhupâlcok dialect]

- *ajik*  
  [adžik]  
  cold (of food and water) [Dolakh dialect]

- *ajik*  
  [adžik]  
  cold (of food and water) [Sindhupâlcok dialect]

The phoneme /kh/ can occur in word-initial, syllable-initial and intervocalic positions, in which it is realised as a voiceless, aspirated dorso-velar stop [kʰ]. It is not attested in word-final position:

---

3) For a more detailed description of the differences between the two dialects, see Turin (2000a).
The phoneme /g/ can occur in word-initial, syllable-initial and intervocalic positions, in which it is realised as a voiced, unaspirated dorso-velar stop [g]. It is not attested in word-final position:

- *gaiṣa* to dry
  [ga esi a]
- *gongin* a green or brown flying praying mantis
  [gəungi]
- *jagapsa* to faint, have an epileptic fit
  [dzagapsa]

The phoneme /gh/ can occur in word-initial and intervocalic positions, in which it is realised as a voiced, breathy (or murmured) dorso-velar stop [gʰ]. It is not attested in syllable-initial or word-final positions:

- *ghāṇeu* a burp
  [gʰəṇeu]
- *aghorsa* to dig, scratch with fingernails
  [agʰo rsa]

The phoneme /gh/ is further attested in two reduplicative lexemes, in which it occurs both word-initially, word-medially and syllable-initially. Syllable-initial and word-medial /gh/ is only attested in these two reduplicative forms, both of which are onomatopoeic:

- *ghor-ghorsa* to grunt (of a pig), roar (of a tiger)
  [gʰər ər sa]

---

4) For the reader’s comfort, I have chosen to transcribe breathy voice using the raised ‘h’, as in [gʰ] rather than the phonetically accurate [g].
**3.2.2 Retroflex stops**

The phoneme /ʈ/ is a voiceless, unaspirated apico-post-alveolar or retroflex stop [ʈ] which is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions, as illustrated by the examples below:

- **tampe**
  
  [tampe]
  
  the magnolia tree, *Magnolia campbelli*

- **kanṭi**
  
  [kanṭi]
  
  young, fresh, unripe

- **cyaṭamaray**
  
  [tsjaṭamaran̥]
  
  a kind of thorny bush

- **lampat**
  
  [lampat]
  
  plain, farmyard

The phoneme /ʈʰ/ is a voiceless, aspirated apico-post-alveolar or retroflex stop [ʈʰ] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position, as illustrated by the examples below:

- **ṭhoka**
  
  [ṭʰoka]
  
  a large silver bracelet worn by women

- **bomṭʰiṣa**
  
  [bomṭʰiṣa]
  
  to swell up into a blister after a burn or as a result of severe rubbing

- **kuṭʰup**
  
  [kuṭʰup̥]
  
  tadpole

The phoneme /ɖ/ is a voiced, unaspirated apico-post-alveolar or retroflex stop [ɖ] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position:

- **ḍumla**
  
  [ḍumla]
  
  common fig, *Ficus carica*
The phoneme /dh/ occurs only in word-initial position, in which it is realised as a voiced, breathy (or murmured) apico-post-alveolar or retroflex stop [ɖʰ]. It is not attested in syllable-initial, intervocalic or word-final positions:

\[ \text{dhopit} \quad \text{anus} \quad [ɖʰ\text{opɪt}] \]

\[ \text{dhokse} \quad \text{a large bamboo basket used for carrying manure} \quad [ɖʰ\text{kšə}] \]

The phoneme /dh/ is further attested in one reduplicative and onomatopoeic lexeme, in which it occurs both word-initially and syllable-initially:

\[ \text{dholon-đholon} \quad \text{being wide in circumference or diameter} \quad [ɖʰ\text{olon-ɖbolon}] \]

### 3.2.3 Palatal stops

The phoneme /c/ can occur in word-initial, syllable-initial and intervocalic positions, in which it is realised as a voiceless, unaspirated, apico-palatal or lamino-palatal affricate [ts]. It is not attested in word-final position:

\[ \text{cabusa} \quad \text{to carry} \quad [ts\text{abuša}] \]

\[ \text{demca} \quad \text{load} \quad [ɖɛm\text{tsa}] \]

\[ \text{apraca} \quad \text{good, clean, nice} \quad [a\text{pratsa}] \]

The phoneme /ch/ can occur in word-initial, syllable-initial and intervocalic positions, in which it is realised as a voiceless, aspirated, apico-palatal or lamino-palatal affricate [tsʰ]. It is not attested in word-final position:
3.2.4 Dental stops

The phoneme /t/ is a voiceless, unaspirated dental or alveolar stop [t] which is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions.
Younger Thangmi speakers who are also fluent in Nepali are more likely to articulate the phoneme /t/ as a dental stop, while older and monolingual Thangmi speakers tend towards an alveolar articulation:

- *toŋsa* to wash clothes
  
  [tɔŋsa]

- *altak* the Nepalese rhododendron tree, *Rhododendron arboreum*
  
  [aɾtak]  

- *kotale* under, below (of a place)
  
  [koʃale]

- *aŋtít* the whistling thrush, *Myiophoneus caeruleus*
  
  [aŋtiː]

The phoneme /th/ is a voiceless, aspirated dental or alveolar stop [tʰ] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position. Younger Thangmi speakers who are also fluent in Nepali are more likely to articulate the phoneme /th/ as a dental stop, while older and monolingual Thangmi speakers tend towards an alveolar articulation:

- *themba* doorframe, doorway
  
  [θeŋma]

- *cyurthin* a mouth shaped like a monkey’s mouth
  
  [tʃurθin]

- *aŋthsā* to become light
  
  [aŋθaŋsa]

The phoneme /d/ is a voiced, unaspirated dental or alveolar stop [d] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position. Younger Thangmi speakers who are also fluent in Nepali are more likely to articulate the phoneme /d/ as a dental stop, while older and monolingual Thangmi speakers tend towards an alveolar articulation:

- *doksa* to peck, sting, bite
  
  [ɖɔkʃa]
The phoneme /dh/ is a voiced, breathy (or murmured) dental or alveolar stop [dʱ] which is attested in word-initial and intervocalic positions. It is not attested in syllable-initial and word or syllable-final positions. Younger Thangmi speakers who are also fluent in Nepali are more likely to articulate the phoneme /dh/ as a dental stop, while older and monolingual Thangmi speakers tend towards an alveolar articulation:

- **dhiri** thunder  
  [dʰiri]
- **dhapre** Curaçao aloe, *Aloe vera*  
  [dʰapre]
- **kadhrap** species of plant (Latin name unknown)  
  [kadʰrap’]

### 3.2.5 Bilabial stops

The phoneme /p/ can occur in all positions in the Thangmi word or syllable. In word-initial, syllable-initial and intervocalic positions, the phoneme /p/ is a voiceless, unaspirated, bilabial stop [p]:

- **panjku** water  
  [paŋku]
- **pampanek** butterfly  
  [pampanek’]
- **papasek** testicles  
  [papa[ek’]

Word-finally, the phoneme /p/ is a voiceless, unreleased, unaspirated bilabial stop [p’]:

- **asip** a species of tree (Latin name unknown)  
  [asip’]
kanṭap a chip of bamboo or splint of wood used to make carrying baskets or cradles

The phoneme /ph/ is a voiceless, aspirated, bilabial stop [pʰ] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position.

phase flour [pʰaʃə]
lamphaysa to cross over, step over (someone or something) [lampʰənʃa]
aphínca light (in weight), thin, narrow [apʰintsa]
laphar cowardly, timid, irresolute [lapʰar]

The phoneme /b/ is a voiced, unaspirated bilabial stop [b] which is attested in word-initial, syllable-initial and intervocalic positions. It is not attested in word or syllable-final position:

bosiŋ alder, Nepal black cedar, Alnus nepalensis [boʃın]
domba tree [qɔmba]
kitrinbas in four days [kiɾtinbas]
abu penis [abu]

The phoneme /bh/ is a voiced, breathy (or murmured) bilabial stop [bʰ] which is infrequent in occurrence and attested in word-initial position only. It is not attested in intervocalic, word or syllable-final position.

bhâmbâla a species of tree (Latin name unknown) [bʰəmbala]
The phoneme /bh/ is further attested in one reduplicative lexeme, in which it occurs both word-initially and syllable-initially:

\[ bhut-bhute \]
the flameless and white-hot centre of a fire
[\textit{bhu}ţ\textit{bhu}ţe]

**3.3 Nasals**

Thangmi has a series of voiced nasals at four points of articulation, velar, retroflex, dental and labial. The phoneme /\textit{n}/ is a voiced, velar nasal continuant [\textit{n}] which is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions. It is a frequently occurring Thangmi phoneme:

\[ \textit{ŋasa} \]
to say, ask, order, tell
[\textit{ŋa}ša]

\[ \textit{cārŋa} \]
liver
[\textit{tsar}ŋa]

\[ \textit{aŋil} \]
gum(s)
[\textit{aŋi}l]

\[ \textit{loŋsa} \]
to do, make
[\textit{l}oŋša]

\[ \textit{akloŋ} \]
grasshopper, locust
[\textit{a}klœŋ]

The phoneme /\textit{n}/ is a voiced, retroflex nasal continuant [\textit{n}] with a free alternate as a voiced, retroflex tap [\textit{ɾ}]. It is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

\[ \textit{ŋepsa} \]
to crush with a stone, bruise by falling
[\textit{ŋe}psa -\textit{ɾe}psa]

\[ \textit{kuchipŋasa} \]
to be bored, have a bad experience
[kuts\textit{ɾe}ŋ\textit{a}sa -kuts\textit{ɾe}ŋ\textit{ɾa}sa]
alaloŋŋɔŋ large bamboo mat used in death rituals into
[alaloŋŋɔŋ - alaloŋŋɔŋ] which a corpse is rolled

anŋŋseŋk kidney
[anŋŋʃʃk` - anŋŋʃʃk`]

kaŋtu neck, throat
[kaŋtu - kaŋtu]

cičikoŋ a block of wood on which to cut things
[tsišíkoŋ - tsišíkoŋ]

The phoneme /n/ is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions. In general, older and monolingual Thangmi speakers realise /n/ as a voiced, alveolar continuant [n], while younger Thangmi speakers who are bilingual in Nepali pronounce /n/ as a voiced, dental nasal continuant [ŋ]. The two allophones exist in free variation:

nembo other person
[ŋembo-nembo]

semni a Tamang person
[ʃemni-ʃemni]

chyunupuːʈuk the protruding behind of a chicken
[tsʰyʉŋuːʈuk` - tsʰyʉŋuːʈuk`]

yanatasa to deliver
[jaŋataʃa-janataʃa]

yante hand-driven millstone, grindstone, quern
[jaŋate-janate]

akan barley, Hordeum vulgare
[akaŋ-akan]

The phoneme /m/ is a voiced, bilabial nasal continuant [m] which is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

makarpapa spider
[makarpapa]
dokmanj Nepal pepper, prickly ash, *Zanthoxylum armatum*

[cõkmanj]

cime hair (only on the head)

[cime]

cumsa to seize, hold, grab, catch, grasp, clasp

[cumṣa]

nem house

[nem]

3.4 Glottal stop

The phoneme /ʔ/ is an energetically articulated glottal stop [ʔ] which is attested only in the Sindhpâlcok dialect of Thangmi. While the phone is heard in the northernmost villages of Dolakhā in which Thangmi is spoken, /ʔ/ has phonemic status in Sindhpâlcok only. The phoneme /ʔ/ is attested in intervocalic and syllable-final positions only. In intervocalic position, the phoneme /ʔ/ is most commonly followed by a staccato echo vowel, as in the following five examples, all drawn from the Sindhpâlcok dialect:

\[
\begin{align*}
\text{asəʔasa} & \quad \text{to itch} \\
[əfəʔaʃa] \\
\text{abeʔesa} & \quad \text{to carry a child on one’s back} \\
[abeʔeʃa] \\
\text{jiʔiša} & \quad \text{to split in two} \\
[dzɪʔiša] \\
\text{loʔosa} & \quad \text{to drain, pour out} \\
[ləʔoʃa] \\
\text{buʔusa} & \quad \text{to cover, cover up, put a lid on a pot} \\
[buʔuʃa]
\end{align*}
\]

There are, however, a number of examples of the phoneme /ʔ/ occurring in intervocalic position followed by a different vowel:

\[
\begin{align*}
\text{cyʔe} & \quad \text{night} \\
[tsjaʔe]
\end{align*}
\]
In a handful of cases, the phoneme /x/ occurs in syllable-final position in polysyllabic lexical items. In these cases, unglottalised articulations are universally rejected by speakers of the Sindhupâlcok dialect:

- *iɪ`bliŋ* (iɪ`blɪŋ) aright, right side up, right way up
- *ja`co* (dza`tso) wheat, *Triticum sativum, Triticum aestivum*
- *pecye`sa* (pEtsjEßa) small, cramped (of a habitation or living place)
- *ama`sa* (ama`ßa) to beg

At first glance, word-final glottal stops which follow a vowel in the Sindhupâlcok dialect appear to be allophones of final consonants, particularly when compared with cognate forms from the Dolakhâ dialect in which these lexical items indeed possess final consonants, as in *akra`* [aka?] ‘inedible toad or frog with webbed feet’ (Sindhupâlcok) versus *akra`k* [akrak] ‘inedible toad or frog with webbed feet’ (Dolakhâ). However, this putative allophonic explanation must be discounted for a number of reasons. First, there is no systematic opposition between Dolakhâ [-k] and Sindhupâlcok [-ʔ], and a number of Sindhupâlcok lexical forms attest the same final voiceless velar stop as recorded for Dolakhâ. Second, final vowels may be glottalised in Sindhupâlcok in instances when the cognate Dolakhâ lexical form exhibits a word-final vowel. Third, speakers of the Sindhupâlcok dialect of Thangmi universally reject final consonants in the place of a glottal stop and similarly reject glottal stops in the place of final /k/ and /t/.
alax  small wooden or bamboo foot bridge [Sindhupalcok dialect]
alak  small wooden or bamboo foot bridge [Dolakh dialect]
[alax - alak]

asari  taste [Sindhupalcok dialect]
asare  taste [Dolakh dialect]
[asari - asare]

asari  common fly [Sindhupalcok dialect]
asarep  common fly [Dolakh dialect]
[asari - asarep]

lonqo  sternum, middle of chest [Sindhupalcok dialect]
lonqo  sternum, middle of chest [Dolakh dialect]
[lonqo - lonqo]

jinchi  clitoris [Sindhupalcok dialect]
jinchiri  clitoris [Dolakh dialect]
[jinchiri - dzintsiri]

In phonological monosyllables, the final glottal stop /ʔ/ is articulated so as to trigger an automatic echo of the preceding vowel upon release of the closure. The result of this automatically conditioned echo vowel is that phonological monosyllables with a final glottal stop /ʔ/ are thus phonetically disyllabic:

<table>
<thead>
<tr>
<th>phoneme</th>
<th>pronunciation</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ceʔ</td>
<td>[tseʔe]</td>
<td>the chestnut tree, Castanopsis hystrix [Sindhupalcok dialect]</td>
</tr>
<tr>
<td>ce</td>
<td>[tse]</td>
<td>the chestnut tree, Castanopsis hystrix [Dolakh dialect]</td>
</tr>
<tr>
<td>boʔ</td>
<td>[boʔ]</td>
<td>inflorescence of maize [Sindhupalcok dialect]</td>
</tr>
<tr>
<td>bok</td>
<td>[bok]</td>
<td>inflorescence of maize or rice [Dolakh dialect]</td>
</tr>
</tbody>
</table>

3.5 Fricatives, Trills and Laterals

The Thangmi sound system attests one fricative /s/, one trill /r/ and one lateral /l/. The phoneme /s/ has two allophones which exist in free variation: a voiceless, lamino-alveolar, grooved fricative [ʃ] and a voiceless, palatal fricative [ʃ]. Younger Thangmi speakers who are also fluent in Nepali are more likely to articulate the pho-

5) Van Driem (1993, p. 56) describes the same process for Dumi, in which the phonological monosyllable /boʔ/ ‘word, language’ is phonetically disyllabic [boʔa].
neme /s/ as [ʂ] while older and monolingual Thangmi speakers tend towards a palatal articulation [ʃ]. The allophone [ʃ] is universally rejected in syllable-initial position following a consonant, as in seksa [ʃekʃa] and explicitly not *[ʃekʃa]. It is possible that a genuine morphophonological distinction between [ʂ] and [ʃ] existed in Thangmi at one point, and that the allophones were in complementary distribution. Perhaps with the encroachment of Nepali, in which s, ʂ and ş are now pronounced and used more or less interchangeably, the distinction has been likewise eroded in Thangmi. The phoneme /s/ is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

- **sempir**
  - सेम्पिर
  - **[ṣempir - ṣempir]**

- **serekşa**
  - सेरेक्षा
  - **[ṣerekṣa - ḍerekṣa]**

- **amisa**
  - अमिसा
  - **[amiṣa - amija]**

- **ustok**
  - उस्तोक
  - **[uṣṭok - uṭek]**

- **citabas**
  - चिताबास
  - **[tisiṭabaṣ - tsiṭabaʃ]**

The phoneme /r/ is a voiced, apico-alveolar trill or resonant [r] which is optionally released as a tap [ɾ] in intervocalic position. The phoneme /r/ is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

- **raphil**
  - राफिल
  - **[rapʰil]**

- **gamra**
  - गम्रा
  - **[gamra]**

- **bärma**
  - बृमा
  - **[baruʃa]**

---

6) The historical status of the Nepali sibilants s, ʂ and ş remains unclear. While some scholars believe that Nepali orthography reflects a three-way phonological distinction for fricatives, others are rather more in favour of a binary phonological opposition between s on the one hand, and ʂ and ş on the other.
The phoneme /l/ is a voiced, apico-alveolar, lateral approximant [l] which is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

- **lembe** flat winnowing tray made of bamboo
- **sinlati** butterfly bush, *Buddleja (Buddleia) asiatica*
- **calak** air potato, *Dioscorea bulbifera*
- **duldul** the flying male of the white ant
- **hucil** nocturnal forest eagle-owl, *Bubo nipalensis*

### 3.6 Approximants

Thangmi attests three approximants: velar /h/, alveolar /y/ and bilabial /w/. The phoneme /h/ is realised as a voiceless glottal approximant [h] in word-initial and syllable-initial position and as a breathy and voiced allophone [ɦ] in intervocalic position. The phoneme /h/ is attested in word-initial and intervocalic positions only:

- **hapsa** to aim, fire, shoot, hunt
- **ahunsa** to pick up (from the ground), pluck

In word-initial position, the phoneme /h/ often indicates a question word, as in:
The phoneme /h/ is further attested in one reduplicative noun, in which it occurs both word-initially and syllable-initially:

**haf-haf**

steam

A few instances of the phoneme /h/ are attested in combination with other approximants and nasals, as in /hw/, /hy/ and /nh/. The sequence /hwa/ occurs in only one lexical item in the Dolakhā dialect and two from the Sindhupālcok dialect of Thangmi:

**hwaf-hwaf**

open, spacious, wide [Dolakhā dialect]

**hwali**

four [Sindhupālcok dialect]

**hwalfa**

five [Sindhupālcok dialect]

The sequence /hy/ is attested in both dialects in word-initial position only, preceding vowels [a] and [u], and in lexical items indicating place, location or direction:

**hyaletcha**

to arrive [Sindhupālcok dialect]

**hya-te ~ hyu-te**

up there, over there

The sequence /nh/ is attested in both dialects in word-initial position only, preceding vowels [a] and [u], and occurring in lexical items indicating place, location or direction:

**nhabasa**

lower
nhu-te over there (far and down) [nʰutɛ]

nhaiko lower storey [Sindhupâlcok dialect] [nʰatko]

The phoneme \(/y\/) is a voiced, lamino-palatal approximant [j] which is attested in word-initial and intervocalic positions:

- yan today [jaŋ]
- yuli needle [juli]
- uyu mouse [uju]
- paṭaya rice stalks once the paddy has been removed [paṭaja]

The phoneme \(/y\/) is also widely attested in both dialects as a post-consonantal offglide, but never as an onglide or syllable-final offglide:

- byengga lower storey [Sindhupâlcok dialect] [bjeŋga]
- cyasa to eat [tsjaša]
- ṭyal-ṭyal soft, tender [njalŋjal]
- agyosa to call, cry, rumble [agjoša]
- ghyoksra to bark (of a dog) [gʰjoša]

The phoneme \(/w\/) is a voiced, median, labial-velar approximant [w] which is attested in word-initial, syllable-initial and intervocalic positions:
The phoneme /w/ is also widely attested in both dialects as a post-consonantal offglide following the unaspirated velar stops /k/ and /g/, but never as an onglide or syllable-final offglide:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kwai</td>
<td>all root vegetables, particularly potato</td>
</tr>
<tr>
<td>kwassa</td>
<td>to be enough, feed to the full, be stuffed</td>
</tr>
<tr>
<td>gwi</td>
<td>thief, robber</td>
</tr>
<tr>
<td>gwa∫a∫if</td>
<td>pregnant female</td>
</tr>
</tbody>
</table>
twist, entwine’, ghiritsa ‘to scratch, peel off’; aghax ‘crow, raven’, akho ‘grasshopper’.

/ə/ vs. /ə/  
țeksə ‘to tear cloth or paper, lacerate’, đeksə ‘to have enough sleep’; tisa ‘to close, shut’, disa ‘to comb someone’s hair’; ajit ‘the whistling thrush’, adipsa ‘to suckle on mother’s milk’.

/ðə/ vs. /ðə/  
țhoka ‘large bracelet’, dhokse ‘large bamboo container or basket’.

/c/ vs. /j/  
calak ‘air potato, Dioscorea bulbifera’, jalat ‘Nepalese hog plum, Choerospondias axillaris’; ceksə ‘to bite, sting’, jeksə ‘to clean, wash’; cisa ‘to throw, throw away’, jisa ‘to chop, split in two’; cyokpa ‘a small bird’, jyoksa ‘to be burnt’; cyousa ‘fat, grease’, jyousa ‘to burn, roast’.

/ch/ vs. /ʃ/  
chinik ‘perilla, edible seed, Perilla frutescens’, jhinyak ‘catapult, trap’; chyapą ‘ritual pollution related to death’, jhyalųų ‘a vessel used to carry burning coals’.

/th/ vs. /ð/  
thaŋsa ‘to be happy, smile’, daŋsa ‘to look for, search’; tapsa ‘to beat or play the drum’, dapsa ‘to measure, fill’; ti ‘honey’, di ‘one’.

/th/ vs. /ð/  
thaŋu ‘fireplace, hearth’, dhapre ‘Curaçao aloe, Aloe vera’; thumsa ‘to mark, stain, stick’, dhumba ‘mist, fog, cloud’.

/p/ vs. /b/  
pampanek ‘butterfly’, bampre ‘rib, chest, breast’; paŋku ‘water’, bŋkal ‘stomach, belly’; pene ‘vagina’, bena ‘brown oak of the Himalaya, Quercus semecarpifolia’; pisa ‘to give’, bisa ‘to enter, go inside’.

/ph/ vs. /bh/  
phetelek ‘watery, moist’, bheterė ‘bamboo mat’; phinphin ‘smooth, flat, even’; bhimbira ‘termite’.

3.7.2 Distinctiveness of aspiration and breathy articulation

/k/ vs. /kʰ/  

/g/ vs. /gh/  

/t/ vs. /θ/  
tαŋsa ‘to open’, thαŋsa ‘to discover a god’; tasa ‘to tease, deride, joke, harass’; thasa ‘to scrape off, peel off, strip off’; tesa ‘to remove corn cobs from the stalk’, theṣa ‘to displace water’.

/ð/ vs. /dʰ/  
donŋoŋ ‘the lower leaves or outer covering of a bamboo plant’, dholoŋdholoŋ ‘being wide in circumference or diameter’.
3.7.3 Distinctiveness of nasals

/m/ vs. /ŋ/  
khoma ‘the feathery inflorescence of the millet plant’, khøja ‘a small basket for carrying fish’; man ‘body’, qaŋ ‘and’; myŋ ‘cloth, clothes, material’, yyu ‘brain’; thamsa ‘to insert, put in’, thåŋsa ‘to be healthy, be able’.

/m/ vs. /n/  
mama ‘father’s sister’s husband’, nama ‘with, together’; man-sa ‘to knead’, namsa ‘to smell’.

/m/ vs. /ŋ/  
mesa ‘water buffalo’, nesa ‘to hit, strike’; miŋ ‘clothes, clothes, material’, ŋiŋ ‘stone, rock’.

/n/ vs. /ŋ/  
nasa ‘to put’, ŋasa ‘to be infested with lice’; nesa ‘to grind, pound’, ṇesa ‘to hit, strike’.

/n/ vs. /ŋ/  
thansa ‘to move, transfer, change’, thåŋsa ‘to discover a god’; nasa ‘to put, place, position’, ṇasa ‘to say, tell, inquire, order, ask’.

/ŋ/ vs. /ŋ/  
ŋasa ‘to say, tell, inquire, order, ask’, ṇasa ‘to be infested with lice’; yyu ‘brain’, ŋu ‘later’.

3.7.4 Distinctiveness of other consonants

/s/ vs. /ɾ/ vs. /ɻ/  
sasa ‘vein, tendon, ligament’, raså ‘to come’, lasa ‘Indian rhododendron’, Melastoma malabathricum’; siśa ‘to die’, rise ‘the tree, Maesa chisia’, liśa ‘to scatter, broadcast’; kosa ‘bone’, korsa ‘to weed with a hoe’, kolśa ‘to add the leftover millet or maize paste from a previous meal to a new pot of hot water so as to reuse it and cook a new meal’. 
/w/ vs. /y/ vs. /h/  wasa ‘to plough’, yasa ‘to feed, give food’, hassa ‘to fall from a height’; wa ‘chicken, hen’, ya ‘ritual word for giant taro, Alocasia indicum’; awa ‘locally-grown tobacco’, ayu ‘pine-marten’, ahe ‘very, a lot, much’.

4. Phonotactics, syllables and the Thangmi word

4.1 Stress

In Thangmi, stress is non-distinctive, prosodic and relatively unpronounced. In glossary entries in the lexicon, stress is indicated by a stress mark [ʼ] before the stressed syllable, but only in instances when it is not predictable. Unless otherwise indicated, all Thangmi words are stressed on the first syllable. The only deviations from this rule relate to Thangmi verb forms composed of three syllables or more, in which the stress falls on the second syllable:

- ca  son [one syllable]  
  [tsa]

- bok  maize or rice inflorescence [one syllable]  
  ['bɔk']

- hara  what? [two syllables]  
  [hara]

- akyarar  the bulb of an arum lily, Arum campanulatum [three syllables]  
  ['akjarar']

- bosa  to grow (of crops) [two syllables]  
  ['boʃa']

- kerepsa  to cry, weep [three syllables]  
  [ke’repsa]

- cinampasa  to cause to amuse, make play [four syllables]  
  [tsɨnampaʃa]

Reflexive verbs follow a slightly different pattern with regard to word and syllable stress. Since the reflexive marker <-si> (REF) is never stressed, the stress always falls on the preceding syllable, as in the examples below:
phaksisa to eat by throwing a mouthful at a time into the mouth [three syllables]
thangwarünsisa to lie on one’s back without sleeping [five syllables]

Inflected verb forms do not deviate from the above rules, as shown in the examples below:

boy-an it grew [two syllables]
[bojan]
kerep-ŋa-n I cried [three syllables]
[keʔrepjan]
cinampay-en-du they are made to play [five syllables]
[tsiʔnampajendo]

A syllable may consist of a single vowel phoneme (V):

ai pus (V) [ai]

au mango (V) [au]

Loans from Nepali may deviate from this scheme.

4.2 Syllable structure
The phonological word consists of one or more syllables, the borders of which are determined by the rules of Thangmi syllable structure and type. The canonical syllable structure observed for Thangmi lexical items may be schematised as follows:7)

\[(C_i) \quad (G) \quad V \quad (C_j)\]

A syllable may consist of a single vowel phoneme (V):

ai pus (V) [ai]

au mango (V) [au]

7) Loans from Nepali may deviate from this scheme.
A syllable may also consist of a consonant and a vowel (C\textsubscript{i}V), in which (C\textsubscript{i}) is the initial and optional opening segment of a syllable which consists of a single consonant. All Thangmi consonant phonemes listed in Table 2 above, apart from the glottal stop /ʔ/, may occur as the syllabic onset and are thus attested in initial position:

- ca, son \([\text{tsa}]\)
- ni, we, honey \([\text{ni}]\)
- to, he, she, it \([\text{jo}]\)

A syllable may consist of a consonant, a vowel and another consonant (C\textsubscript{i}VC\textsubscript{f}), in which (C\textsubscript{f}) is the final and optional closing segment of a syllable. This coda always consists of a single consonant. Of the Thangmi consonant phonemes listed in Table 2 above, 15 are attested in final position as the coda of a syllable: /p/, /t/, /c/, /t/, /k/, /b/, /g/, /m/, /n/, /ŋ/, /ŋ/, /ʔ/, /s/, /r/ and /l/, some examples of which are given below:

- don\textsuperscript{f}, intestines \([\text{dɔŋ}]\)
- ban\textsuperscript{f}, friend \([\text{ban}]\)
- dol\textsuperscript{f}, valley, deep place \([\text{dɔʃ}]\)
- lak\textsuperscript{f}, hand, arm \([\text{lak}^\prime]\)
- laʔ\textsuperscript{f}, hand, arm \([\text{laʔ}]\)
- mus\textsuperscript{f}, body hair, head hair \([\text{muʃ}]\)
- pur\textsuperscript{f}, nipple \([\text{pur}]\)
A syllable may also consist of a consonant and a vowel (C_iV) which are separated by a glide (G). The phonemes /l/, /ɾ/, /y/ and /w/ occur as post-consonantal glides (G). The phoneme /l/ is attested as a post-consonantal glide following /b/, /g/, /k/ and /p/ only:

- bliŋsa to reverse, overturn
  [blĩŋsa]
- gleŋsa to be left over (of food)
  [gleŋsa]
- kleŋ thasa to be full [Dolakhā dialect]
  [kleŋ tʰasa]
- pleŋsa to become full, be filled [Sindhupālcok dialect]
  [pleŋsa]

The phoneme /ɾ/ is attested as a post-consonantal glide following /b/, /ɾ/, /ɾ/ and /ɾ/:

- broŋ mildew
  [brɔŋ]
- droŋɔsa to run, flee
  [ɖrɔŋɔsa]
- krepsa to cry, weep
  [krepsa]
- khrimsa to twist, braid, entwine
  [kʰrimsa]
- priŋ outside
  [priŋ]
The phoneme /y/ is attested as a post-consonantal glide following /b/, /c/, /ch/, /q/, /g/, /k/, /kh/, /j/, /l/, /m/, /n/, /ŋ/, /p/, /r/, /s/, /t/, /tʃ/ and /θ/, some examples of which are given below:

cyasa to eat
[tsjaša]

chyasa to be pulled off, scraped off
[tsʰjaša]

dyaksa to mature, ripen
[djakša]

gyal-gyalti fecund, highly fertile
[gjalɡjalṭi]

kyaŋ needle wood tree, *Schima wallichii*
[kjaŋ]

khyaksa to fall from above
[kʰjakša]

lyuf stone, rock
[ljuŋ]

myuf cloth, clothes, material
[mjuŋ]

fyu brain
[Nju]

tyaf then, well, and
[tʰjaŋ]
The phoneme /w/ is attested as a post-consonantal glide following /g/ and /k/ only:

- **gwi**  
  [gwi]  
  thief, robber

- **gwaŋiŋiŋ**  
  [gwaŋiŋiŋ]  
  pregnant female

- **kwai**  
  [kwai]  
  root vegetables, particularly potato

### 4.3 Consonant clusters and geminate consonants

Thangmi does not permit sequences of consonants in syllable-final position. Loan words from English which have final nasal consonant clusters, such as *think*, are rendered in Thangmi as /θiŋ/ [θʰŋ]. In syllable-initial position, the only consonant clusters attested are those in which the second phoneme is either /l/, /r/, /y/ or /w/. These four consonant phonemes then function as post-consonantal glides, as described in Section §4.2 above. At syllable breaks in Thangmi words, consonant clusters are attested in so far as they involve the closed coda of one syllable and a consonant initial in the following segment, as in:

- **syapta**  
  [sjapṣa]  
  a species of small bird  
  \((C_iGVC_i C_iV)\)

- **adipsa**  
  [adipsa]  
  to suckle on mother’s milk  
  \((V C_iVC_i C_iV)\)

- **tam-tam**  
  [tamṭam]  
  white clay  
  \((C_iVC_i C_iVC_i)\)

Gemination is defined as the clustering of identical consonants adjacent to one another within a phonological word. The phonetic value of geminate consonants is discerned to be different to single consonants on the basis of clearly audible length. The consonants /p/, /t/, /k/, /n/, /ŋ/, /s/ and /l/ are attested as geminates in native Thangmi lexical items:
pup-pap sweepings
[pu:p-pap]

botton thorny bamboo, Bambusa arundinacea
[bo:tton]

gyatta loin cloth
[gi:ta]

ukkar wild cush-cush, yam, Dioscorea deltoidea
[ukkar]

hen-no take!
[hen-no]

syunjan garuga, Garuga pinnata
[sju:njan]

hassa to fall from a height, fall down and not die
[hasha]

kulla ear
[kulla]

On account of the phonological composition of the verbal agreement suffixes in Thangmi, geminate sequences of the consonant phoneme /ŋ/ are widely attested:

cijyan-ŋa-du I speak
[tisidzaŋnadu]

way-ŋa-n I came up
[waŋjan]

The Sindhupâlcok dialect of Thangmi attests a single example of a lexical form in which the doubling of a consonant (and its aspiration) leads to a slight difference in meaning:

huca baby, child, infant
[hutsa]
5. Prosodic lengthening

Certain Thangmi vowels are lengthened for emphasis or as the result of bearing the prosodic accent of a clause or sentence. These lengthened vowels occur primarily in adjectives, adverbs and interjections when the speaker intends to convey an intensified feeling or emotion. Examples include ho to (yes that) ‘yes, that one’ from Nepali ho ‘yes’ and Thangmi to ‘he, she, it (distal)’ which is rendered as [hoː joː] and aṭhe apraca ‘very good, excellent’ which is often pronounced with lengthened initial vowels on each word, as in [aːṭhe apratsa]. When giving directions, older Thangmi speakers use vowel lengthening to indicate relative distance and the difficulty of the terrain, as in dhu-te hen-ko mai-Ø-du (over.there-LOC go-ADH must-sAS-NPT) ‘you must go over there’, in which [dɯu] is often rendered as [dɯːu] to underscore the distance.

5. The phonology of loans from Nepali

On account of the copious borrowing of grammatical and lexical elements from Nepali, a few words about these loans should be included in this article on the Thangmi sound system. There is a considerable variation among Thangmi speakers in the rendering of Nepali forms, with younger and bilingual Thangmi speakers usually articulating Nepali words with standard received Nepali pronunciation, while older Thangmi speakers pronounce Nepali less perfectly. Moreover, as is apparent from the overview of Thangmi phonemes in Table 1 of this article, Thangmi phonology does not differ greatly from Nepali phonology, and the inventory of consonant phonemes is near identical.

The greatest and most immediately audible difference between Thangmi speakers articulating Nepali and mother-tongue Nepali speakers relates to vowel quality and length. Most Thangmi speakers, even those with a high level of conversational fluency in Nepali, render Nepali [a] as a short, open, unrounded, front vowel [a] and not as a short, half-open, unrounded back vowel [ɑ - ø] which would be the correct Nepali pronunciation. This is particularly significant since Thangmi has a similar, albeit infrequently occurring phoneme: the short, open, unrounded, back vowel [ɑ - ø] /a/. The result is that Nepali [a] and [a] are both pronounced as [a] by Thangmi speakers, making Nepali ma ‘I’ and mā ‘at, in’ appear homophones since both are rendered as [ma]. This phonological contraction has not gone unnoticed by mother-tongue Nepali speakers who live in otherwise predominantly Thangmi villages. Brahmans, Chetris and the members of the so-called ‘occupational castes’ imitate Nepali-speaking ethnic Thangmi by mimicking their inability to articulate Nepali [a] and [a] distinctly.

Another noticeable feature of Nepali when spoken by most Thangmi is the tendency to diphthongise clusters of Nepali vowels, as described in Section §2.3 above.
Two co-occurring monophthongs in Nepali give rise to a diphthong in Thangmi, as in gāī ‘cow’, which is disyllabic in Nepali but a monosyllabic diphthong when articulated by Thangmi speakers: gai [gai], or the trisyllabic Nepali thakāī ‘weariness, fatigue’ which is disyllabic when rendered in Thangmi thakai [tʰakai].

The final distinctive feature of Nepali loans in Thangmi relates to borrowed verbs. Causative verb forms in Nepali, such as paḍhāunu ‘to teach (literally ‘to cause to learn’)’ and their standard non-causative transitive or intransitive forms, such as paḍhnu ‘to read, study’, are slightly reworked when borrowed into Thangmi. Causative verb forms from Nepali loose the causative and infinitive elements <āunu> and receive <aisa> in Thangmi, as in Nepali paḍhāunu ‘to teach’ and Thangmi paḍhaisa [paḍhaisa] ‘to teach’. Non-causative verb forms which Thangmi speakers borrow from Nepali undergo a slightly different process: the Nepali infinitive suffix <nut> is replaced with <aisa> (ai + REF + INF), as in Nepali paḍhnu ‘to read, study’ and Thangmi paḍhaisa [paḍhaisa] ‘to read, study’.

6. The orthography

The orthography I have adopted for transcribing Thangmi follows the phonological value of words and syllables. As discussed in Section §4.1 above, stress is not indicated unless it deviates from the expected norm. Although unconventional, I have opted to use the character ā to represent the infrequently occurring short, open, unrounded, back vowel [a], in order to distinguish it from a [a]. In large part this orthographical choice has been motivated by a limitation of computer typography for representing the Times font: when italicised, the regular character a loses its head loop and becomes a. This change is frustrating to linguists, since [a] is a different vowel to [a], whether rendered in Roman or cursive script.

The staccato vowel following /ɔ/ from the Sindhupālcok dialect of Thangmi is always indicated in the orthography, as in loʊɔsa [loʊɔsa] ‘to drain, pour’. Word-internal morpheme boundaries are indicated with hyphens, as in hen-sa [hensa] (go-INF) ‘to go’. Hyphenation is also used to separate two phoneme symbols which might otherwise be read as the digraph for another phoneme, as in hik-hiksa ‘to hiccough’, for which the pronunciation is [hɪhɪksa] and emphatically not [hɪhɪksa]. Hyphens are further used to separate the components of reduplicative, rhyming and onomatopoeic forms, as in †yaf-†yaf [yafyaf] ‘naked’ or pup-pap [pupper] ‘sweepings’.

When they form part of an example, loan words from Nepali are transcribed according to the local pronunciation provided by the speaker. In such cases, I have opted to indicate a borrowed form by italicising the English gloss rather than by providing the standard transliteration from Devanāgarī orthography. For the sake of consistency I have italicised all loans, even when they are naturalised or indigenous forms, such as Thangmi guru ‘shaman’ (from Indo-Aryan guru ‘spiritual guide, mentor, teacher’) and Thangmi dese ‘village’ (from Indo-Aryan deś ‘place, quarter, region, province, country,
nation’). 8)

7. Bibliography


8) It is plausible that Thangmi dese ‘village’ is cognate with Proto-Kiranti *del* ‘village’. 
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