目次

論文

GIS（地理情報システム）を用いた認知地図の解析の試み
—東アフリカ牧畜民の地理空間認識とその表象化の理解にむけて
........................................................................................................津村宏臣・河合香吏…1

Further Evidence in Favour of the Affixal Origin of Degema Clitics
........................................................................................................KARI, Ethelbert E. …43

The Phonology of Thangmi: A Tibeto-Burman Language of Nepal
........................................................................................................TURIN, Mark…63

Esquisse du ketiene, petite unité du bantou B. 80 ………………MANGULU, Motingea…105

Kiswahili Intellectualization Efforts in Tanzania …………………MWANSOKO, Hermas J. M. …151

ベナン共和国南部における子供、親族、霊の相関についての一考察
........................................................................................................田中正隆…163

資料・研究ノート

国境を越える「雲南人」
—北タイにおける移動と定着にみられる集団の生成過程— …………王柳蘭…211

『白国因由』校注 ………………………………………………………………立石謙次…263

Some Sociolinguistic Aspects of Gui Communities …………………NAKAGAWA, Hirosi…293
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 Dolakha 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 Dolakha 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 Dolakha 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: (C₁) (G) V (C₂)

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
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 Dolakha district as well as to the eastern valleys of Sindhpulcok 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 Dolakha 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 Dolakhā 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 Dolakha. 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 Dolakhā 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

vowels occur primarily in adjectives, adverbs and interjections when the speaker intends to convey an intensified feeling or emotion.
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

<table>
<thead>
<tr>
<th>vowel phonemes</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>â</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>diphthongs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ei</td>
</tr>
<tr>
<td>oi</td>
</tr>
<tr>
<td>eu</td>
</tr>
<tr>
<td>ou</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>consonant phonemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>k</td>
</tr>
<tr>
<td>c</td>
</tr>
<tr>
<td>t</td>
</tr>
<tr>
<td>p</td>
</tr>
<tr>
<td>y</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>h</td>
</tr>
</tbody>
</table>

Table 1. Thangmi Phonemes
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 [ɪ] in closed syllables:

\[
\begin{align*}
cici & \quad \text{meat} \\
[tsitsi] & \\
tim & \quad \text{mortar} \\
[ɪm] & \\
lisa & \quad \text{to scatter, to broadcast} \\
[lɪsa] & \\
\end{align*}
\]

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

\[
\begin{align*}
pur & \quad \text{nipple} \\
[pur] & \\
ulam & \quad \text{path, road, way} \\
[ulam] & \\
\end{align*}
\]

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 [ɛ], while younger Thangmi speakers who are bilingual in Nepali pronounce /e/ with slightly more closure, as [ɛ]:

\[
\begin{align*}
elepe & \quad \text{spleen} \\
[ɛlepe - elepe] & \\
\end{align*}
\]

\[
\begin{align*}
ahel & \quad \text{garuga, Garuga \textit{pinnata}} \\
[afiɛl - afiel] & \\
\end{align*}
\]

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

\[
\begin{align*}
obo & \quad \text{white} \\
[obo] & \\
\end{align*}
\]
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.

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

The Thangmi phonemes /a/ and /ə/ 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 pānī ‘water’. In my chosen orthography for Thangmi, these words would be represented as pānī 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 ghumāunu ‘to turn around, show around’ and banaisa ‘to make’, from Nepali banāunu ‘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 [e] 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**
  - To pour, be poured
  - [kʰeɪsə]

- **Kokoṭeisa**
  - To become stiff from cold, become numb
  - [kokoqɛɪsə]

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

- **Adhai**
  - Cucumber, *Cucumis sativus*
  - [ad̪ʰaɪ]

- **Aikuca**
  - Long, slightly curved knife, *khukuri*
  - [akutsa]

- **Aspaisa**
  - To throw something violently, smash
  - [aspaiša]

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

- **Joisa**
  - To leak, penetrate
  - [dzɔiša]

- **Coi**
  - Blood
  - [tsɔi]

- **Roimi**
  - A Newar person
  - [ɾɔimɨ]

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**
  - A small black rodent which lives in holes, mole
  - [tsuʃjuːtʰ uʃu]
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]
  
- **ghâñeusa**
  
- **cålauni**
  
- **rulau**

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

- **aprou**
  
- **jyousa**

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**
  
- **jyousa**

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 *malâi* ‘to me’ has three syllables, both forms are disyllabic in Thangmi (creating a minimal pair), using the diphthong /ai/:

\[
\begin{align*}
mâkâi & \quad \text{corn, maize (from Nepali *makai*)} \\
\text{[mâkâi]} & \\

mâlâi & \quad \text{to me, for me (from Nepali *malâi*)} \\
\text{[mâlâi]} & \\
\end{align*}
\]

2.4 Nasality

Nasalised vowels are not a distinctive feature of Thangmi phonology.¹ Nasalised vowels do not contrast 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*}
\text{àdai} & \quad \text{yes, uh-huh} \\
\text{[ädài]} & \\

\text{he?ë} & \quad \text{yes, uh-huh [Sindhupâlcok dialect]} \\
\text{[he?ë]} & \\

\text{hî?ikote} & \quad \text{over there [Sindhupâlcok dialect]} \\
\text{[hî?ıkote]} & \\

\text{khoîkhoîsa} & \quad \text{to cough [Sindhupâlcok dialect]} \\
\text{[kʰî̞kʰî̞sa]} & \\

\text{hûhûisa} & \quad \text{to writhe in pain, squirm} \\
\text{[hûhûISA]} &
\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 ~ ciŋa ~ ciŋa**  
  [tsiŋja -tšiŋa -tšiŋa]  
  *nose*

- **saŋa ~ sāwā**  
  [šaŋa -sāwā]  
  *finger millet, Eleusine coracana*

- **ŋyasa ~ ŋyāsa**  
  [ŋjaša - ŋjaša]  
  *to rot, become rotten, suppurate*

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:

- **bhaïse**  
  [bʰaïse]  
  *tomorrow [Sindhupālcok dialect]*

- **kīyabat**  
  [kījabaṭ]  
  *in three days [Sindhupālcok dialect]*

- **phōŋok**  
  [pʰōŋok]  
  *inflated, swollen, squasy (especially used to describe people’s noses)*

### 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)’, līsa ‘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’, cyocy ‘female*
breast’.

/i/ vs. /a/


/i/ vs. /â/


/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’, ñems ‘to break’; suwa ‘tooth’, ñewa ‘greetings, hello’.

/u/ vs. /o/

țupsa ‘to husk rice or millet in a mortar’, țopsa ‘to wash clothes by beating them’; ulum ‘the upper part of a grinding stone’, olon ‘milk, yoghurt’.

/u/ vs. /a/

uma ‘wife’, ama ‘mother’; çaks ‘to insert, pour into’, caks ‘to cover, patch or overlay bamboo when there are holes’.

/u/ vs. /â/

culy ‘goat’, câlauni ‘moon’; duru ‘earthquake’, dârî 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. /a/

ere ‘ball made of ground grain used in the death rite (ritual language)’, ari ‘fear’; nem ‘house’, nam ‘name’; rey ‘flower’, ray ‘dry or unirrigated field’.

/e/ vs. /â/

elepe ‘spleen’, âlâmtha ‘far, distant’; kerepsa ‘to cry, weep’, kârâisa ‘to call out, be hungry’.

/o/ vs. /a/

ongol ‘Adam’s apple’, ajal ‘shame, embarrassment’; donj ‘intestines, Brahman’, daïnsa ‘to look for, search, seek’.

/oi/ vs. /i/

jois ‘to leak’, jisa ‘to chop, split’; coi ‘blood’, cîle ‘tongue’; roimi ‘a Newar person’, rim ‘homemade beer drunk during death rite (ritual language)’.

/oi/ vs. /i/

luisa ‘to become flaccid’, lansa ‘to climb, ride’; mui ‘banana’, mus ‘body hair’.

/oi/ vs. /i/

luisa ‘to become flaccid’, lisa ‘to scatter, broadcast’; mui ‘banana’, mi ‘person’.
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>
</tr>
</thead>
<tbody>
<tr>
<td>voiceless</td>
<td>p</td>
<td>t</td>
<td>c</td>
<td>ʈ</td>
<td>k</td>
</tr>
<tr>
<td>aspirated</td>
<td>ph</td>
<td>th</td>
<td>ch</td>
<td>ʈʰ</td>
<td>kh</td>
</tr>
<tr>
<td>voiced</td>
<td>b</td>
<td>d</td>
<td>j</td>
<td>ɖ</td>
<td>g</td>
</tr>
<tr>
<td>breathy voiced</td>
<td>bh</td>
<td>dh</td>
<td>jh</td>
<td>ɖh</td>
<td>gh</td>
</tr>
<tr>
<td>nasal</td>
<td>m</td>
<td>n</td>
<td>ŋ</td>
<td>ŋ</td>
<td></td>
</tr>
<tr>
<td>glottal</td>
<td></td>
<td></td>
<td>(ʔ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fricative</td>
<td></td>
<td>s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>trill</td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
</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/ /ɖh/ /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* head [kapu]
- *āŋkalak* brown-green coloured lizard [āŋkalak´]
- *lakaŋe* radish, *Raphanus sativus* [lakaŋe]
- *cikinsa* to give someone a fright [tsikinsa]

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

- *akrak* frog [Dolakhā dialect] [akrak´]
- *nakrak* frog [Sindhupālcok dialect] [nakrak´]
- *ajik* cold (of food and water) [Dolakhā dialect] [adbik´]
- *ajik* cold (of food and water) [Sindhupālcok dialect] [adbik´]

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:

- gafsa to dry [gafsa]
- gongin a green or brown flying praying mantis [gongin]
- 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:

- ghâneu a burp [gʰãneu]
- aghorsa to dig, scratch with fingernails [agʰɔɾsa]

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) [gʰɔɾgʰɔɾsa]

---

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 [g̥].
3.2.2 Retroflex stops

The phoneme /t/ 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**
  - [ʈampe]
  - the magnolia tree, *Magnolia campbelli*

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

- **cyatamaray**
  - [tsjaṭamaran]
  - a kind of thorny bush

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

The phoneme /ṭh/ 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**
  - [ʈʰoka]
  - a large silver bracelet worn by women

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

- **kuṭhup**
  - [kuṭʰup’]
  - 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*
hanḍa
[hanḍa]  
a clay pot for cooking nettles

adipsa
[adipsa]  
to tear pieces of tough meat off the bone
with one’s teeth

The phoneme /∂h/ occurs only in word-initial position, in which it is realised as a voiced, breathy (or murmured) apico-post-alveolar or retroflex stop [∂h]. It is not attested in syllable-initial, intervocalic or word-final positions:

∂hopit
[∂hɔpɪt]  
anus

∂hokse
[∂hɔkʃɛ]  
a large bamboo basket used for carrying manure

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

∂holoŋ-∂holoŋ
[∂hoˈloŋ-∂hoˈloŋ]  
being wide in circumference or diameter

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:

cabusā
[tsabuṣa]  
to carry

demca
[ démtsa]  
load

apraca
[apratsa]  
good, clean, nice

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

- jireŋ /džireŋ/ red wasp
- dunji /dundzi/ lean, thin, meagre, without fat
- aja /adza/ leaf

The phoneme /jh/ can occur in word-initial, syllable-initial and intervocalic positions, in which it is realised as a voiced, breathy (or murmured) lamino-palatal affricate [dzʰ]. It is not attested in syllable-initial, intervocalic or word-final positions. While the phoneme /jh/ is attested in only three native Thangmi words from the Dolakhā dialect, it is far more common in the Sindhupālḍok dialect. The phoneme /jh/ is also widely attested in loan words from Nepali in both dialects.

- jhintyak /džʰmtjak/ catapult, trap
- jhyalṭun /džʰjalṭun/ a vessel to carry burning coals
- kurujhin /kurudzʰin/ a kind of blemish or spot

### 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:

\begin{itemize}
\item \textit{toŋsa} to wash clothes
\item \textit{altak} the Nepalese rhododendron tree, \textit{Rhododendron arboreum}
\item \textit{kotale} under, below (of a place)
\item \textit{ātīt} the whistling thrush, \textit{Myioponeus caeruleus}
\end{itemize}

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:

\begin{itemize}
\item \textit{themba} doorframe, doorway
\item \textit{cyurthin} a mouth shaped like a monkey’s mouth
\item \textit{athānṣa} to become light
\end{itemize}

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:

\begin{itemize}
\item \textit{dokṣa} to peck, sting, bite
\end{itemize}
The phoneme /dh/ is a voiced, breathy (or murmured) dental or alveolar stop [d\textsuperscript{b}] 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:

\textit{dhiri} \hspace{1cm} \text{thunder} \hspace{1cm} [\textit{d\textsuperscript{b}iri}]

\textit{dhapre} \hspace{1cm} \text{Curaçao aloe, Aloe vera} \hspace{1cm} [\textit{d\textsuperscript{b}apre}]

\textit{kadhrap} \hspace{1cm} \text{species of plant (Latin name unknown)} \hspace{1cm} [\textit{kad\textsuperscript{b}rap}]

### 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]:

\textit{pafku} \hspace{1cm} \text{water} \hspace{1cm} [\textit{pa\textsuperscript{n}ku}]

\textit{pampanek} \hspace{1cm} \text{butterfly} \hspace{1cm} [\textit{pampanek}]

\textit{papasek} \hspace{1cm} \text{testicles} \hspace{1cm} [\textit{papa\textsuperscript{e}k}]

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

\textit{asip} \hspace{1cm} \text{a species of tree (Latin name unknown)} \hspace{1cm} [\textit{asip}']
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
  
  [pʰæʃə]

- **lamphansa**: to cross over, step over (someone or something)
  
  [lampʰanʃə]

- **aphinca**: light (in weight), thin, narrow
  
  [apʰinتشə]

- **laphar**: cowardly, timid, irresolute
  
  [lapʰəɾ]

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:

- **bosif**: alder, Nepal black cedar, *Alnus nepalensis*
  
  [boʃɪŋ]

- **domba**: tree
  
  [ɖɒmba]

- **kitriňbas**: in four days
  
  [kiʈɾiŋbaʂ]

- **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.

- **bhambala**: a species of tree (Latin name unknown)
  
  [bʰəmᵇəla]
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

3.3 Nasals

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

*ŋasa* to say, ask, order, tell

*cârña* liver

*aŋil* gum(s)

*loŋsa* to do, make

*akløŋ* grasshopper, locust

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

*nepsa* to crush with a stone, bruise by falling

*kuchipŋasa* to be bored, have a bad experience
Turin, Mark: The Phonology of Thangmi: A Tibeto-Burman Language of Nepal

alalonoŋ large bamboo mat used in death rituals into
[alalonoŋ - alalonoŋ] which a corpse is rolled

anegoŋsek kidney
[ənegoeŋsek - aŋeŋeŋek̚]

kanu neck, throat
[kaŋu - kaŋtu]

cikikoŋ a block of wood on which to cut things
[tsisikoŋ - tsisikoŋ]

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 [n]. The two allophones exist in free variation:

nembo other person
[ŋembo - nembo]

semni a Tamang person
[ʃemni - ʃemni]

chiyunupuŋtuk the protruding behind of a chicken
[tsiŋyŋuŋpʊŋtuk - tsiŋyŋuŋpʊŋtuk]

yanatasa to deliver
[jaŋataša - jaŋataša]

yante hand-driven millstone, grindstone, quern
[jaŋtɛ - jaŋtɛ]

akan barley, Hordeum vulgare
[akɑŋ - 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]
dokman \[dɔkman\] Nepal pepper, prickly ash, *Zanthoxlum armatum*

cime \[cime\] hair (only on the head)

cumsa \[cumša\] to seize, hold, grab, catch, grasp, clasp

nem \[nem\] house

3.4 Glottal stop

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

\[\begin{align*}
\text{asa?asa} & \quad \text{to itch} \\
[\text{afaj\'asa}] & \\
\text{abe?esa} & \quad \text{to carry a child on one’s back} \\
[\text{abef\'esa}] & \\
\text{dzi\'isa} & \quad \text{to split in two} \\
[dziri\'sa] & \\
\text{lo\'osa} & \quad \text{to drain, pour out} \\
[l\'o\'osa] & \\
\text{bu\'usa} & \quad \text{to cover, cover up, put a lid on a pot} \\
[bu\'u\'sa] & \\
\end{align*}\]

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

\[\begin{align*}
\text{cyaxa} & \quad \text{night} \\
[tsja\'e] & \\
\end{align*}\]
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:

\[
\begin{align*}
\text{haʔi} & \quad \text{how much, how many?} \\
\text{[haʔi]} & \\
\text{aʔum} & \quad \text{egg} \\
\text{[aʔum]} & \\
\text{kiʔulîŋ} & \quad \text{bottom, buttocks} \\
\text{[kiʔulîŋ]} & \\
\end{align*}
\]

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 \text{akraʔ} [akraʔ] ‘inedible toad or frog with webbed feet’ (Sindhupâlcok) versus \text{akrak} [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 [Sindhupâlcok dialect]
**alak** small wooden or bamboo foot bridge [Dolakhâ dialect]
[alax - alak]

**asarii** taste [Sindhupâlcok dialect]
**asare** taste [Dolakhâ dialect]
[asarii - așare]

**asarii** common fly [Sindhupâlcok dialect]
**asarey** common fly [Dolakhâ dialect]
[asarii - așarey]

**lonço?** sternum, middle of chest [Sindhupâlcok dialect]
**londo** sternum, middle of chest [Dolakhâ dialect]
[lʊŋɔʔ - lʊndɔ]

**jinchiri** clitoris [Sindhupâlcok dialect]
**jinčiri** clitoris [Dolakhâ dialect]
[dzɪntʃirI - dzɪntʃiri]

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:5)

**ce?** the chestnut tree, Castanopsis hystrix [Sindhupâlcok dialect]
**ce** the chestnut tree, Castanopsis hystrix [Dolakhâ dialect]
[tsɛʔe - tse]

**bo?** inflorescence of maize [Sindhupâlcok dialect]
**bok** inflorescence of maize or rice [Dolakhâ dialect]
[bɔʔɔ - bɔk]

### 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 [bɔʔɔ].
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, s^ 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** ginger, *Zingiber officinale* [ʃɛmpɪr - jɛmpɪr]
- **sereksa** to get up, wake up, arise [ʃɛrɛksa - jɛrɛksa]
- **amisa** to sleep [amiʃa - amiʃa]
- **ustok** spit, spittle, sputum, saliva [uʃtɔk - uʃtɔk]
- **citabas** the day after tomorrow [tʃɪtɑbas - tʃɪtɑbaf]

The phoneme /r/ is a voiced, apico-alveolar trill or resonant [ɾ] 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** tear (n., from the eye) [ɾɑpʰɪl]
- **gamra** molar, jaw [ɡamɾa]
- **bårma** bouquet grass, *Thysanolaena agrestis* [bɑrma]

---

6) The historical status of the Nepali sibilants s, s^ 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 s^ and ş on the other.
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 [h] in intervocalic position. The phoneme /h/ is attested in word-initial and intervocalic positions only:

- hapṣa: to aim, fire, shoot, hunt
- ahunṣa: to pick up (from the ground), pluck

In word-initial position, the phoneme /h/ often indicates a question word, as in:

- hara: what?
The phoneme /h/ is further attested in one reduplicative noun, in which it occurs both word-initially and syllable-initially:

*hafa-hafo* steam
[haNhaN]

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 Sindhupālchok dialect of Thangmi:

*hwa-hwafo* open, spacious, wide [Dolakhā dialect]
[hwaNhwaN]

*hwa-lia* four [Sindhupālchok dialect]
[hwali]

*hwa-loja* five [Sindhupālchok dialect]
[hwalNa]

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:

*hyatecha* to arrive [Sindhupālchok dialect]
[hjalejtsʰa]

*hy-e* ~ *hyu-te* up there, over there
[hjate - hjute]

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

- *yaf* today
- *yuli* needle
- *uyu* mouse
- *paṭaya* rice stalks once the paddy has been removed

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

- *byega* lower storey [Sindhupālčok dialect]
- *cyasa* to eat
- *ṇyal-ṇyal* soft, tender
- *agyosa* to call, cry, rumble
- *ghyoka* to bark (of a dog)

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:

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

- **kwassa**
  - to be enough, feed to the full, be stuffed
  - [kwaśsa]

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

- **gwaṇaṇin**
  - pregnant female
  - [gwaṇaṇin - gwaɾaɾin]

### 3.7 Consonant minimal pairs
Some minimal pairs and near-minimal pairs illustrating the distinctiveness of the consonant phonemes are given below:

#### 3.7.1 Distinctiveness of voicing

- **/k/ vs. /g/**
  - *konkolyaŋ* ‘bent, twisted’, *goŋkolyaŋ* ‘snaked, articulated in many places’; *koʃe* ‘stone wall’, *goʃe* ‘pubic hair’; *kari* ‘song’, *gare* ‘rooster’; *kaŋ* ‘boil, pimple’, *gaŋsa* ‘to dry’; *bagale* ‘peach, Prunus persica’, *bakalcakal* ‘half-cooked, half-raw’.

- **/kh/ vs. /gh/**
  - *khaŋou* ‘door’; *ghaŋou ~ ghaŋeu* ‘burp’; *kirimsa* ‘to braid’, *khaŋou* ‘door’; *gwaŋou ~ gwaŋeu* ‘burp’; *kirimsa* ‘to braid’,
3.7.2 Distinctiveness of aspiration and breathy articulation

/k/ vs. /kh/  

/g/ vs. /gh/  
gaña ‘spherical earthenware jug, large mud jar’, ghañau ‘burp’; goñin ‘a flying praying mantis’, goññon ‘loose fitting, wide, baggy’.

/t/ vs. /th/  
ṭansa ‘to open’, thañsa ‘to discover a god’; tasa ‘to tease, deride, joke, harass’; ṭhasa ‘to scrape off, peel off, strip off’; ṭesa ‘to remove corn cobs from the stalk’; ṭhesa ‘to displace water’.

/ɖ/ vs. /ḍh/  
ḍonḍon ‘the lower leaves or outer covering of a bamboo plant’, ḍholonḍholon ‘being wide in circumference or diameter’.

twist, entwine’, ghiritsa ‘to scratch, peel off’; aghax ‘crow, raven’, akho ‘grasshopper’.

/ʈ/ vs. /ɖ/  
ṭeksə ‘to tear cloth or paper, lacerate’, ḍeksa ‘to have enough sleep’; tisa ‘to close, shut’, ḍisa ‘to comb someone’s hair’; ājit ‘the whistling thrush’, ādipsa ‘to suckle on mother’s milk’.

/ʈʰ/ vs. /ɖh/  
ṭhoka ‘large bracelet’, ḍhokse ‘large bamboo container or basket’.


/ch/ vs. /jh/ 
chinić ‘perilla, edible seed, Perilla frutescens’, jhinityak ‘cata-pult, trap’; chyapay ‘ritual pollution related to death’, jhyal’n ‘a vessel used to carry burning coals’.

/t/ vs. /d/  
tañsa ‘to be happy, smile’, dañsa ‘to look for, search’; tapsa ‘to beat or play the drum’, dapsa ‘to measure, fill’; ti ‘honey’, di ‘one’.

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

/p/ vs. /b/  

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

/g/ vs. /gh/  
gaña ‘spherical earthenware jug, large mud jar’, ghañau ‘burp’; goñin ‘a flying praying mantis’, goññon ‘loose fitting, wide, baggy’.

/ʈ/ vs. /ʈʰ/  
ṭansa ‘to open’, thañsa ‘to discover a god’; ṭasa ‘to tease, de-ride, joke, harass’; ṭhasa ‘to scrape off, peel off, strip off’; ṭesa ‘to remove corn cobs from the stalk’; ṭhesa ‘to displace water’.

/ɖ/ vs. /ḍh/  
ḍonḍon ‘the lower leaves or outer covering of a bamboo plant’, ḍholonḍholon ‘being wide in circumference or diameter’.
Turin, Mark: The Phonology of Thangmi: A Tibeto-Burman Language of Nepal

/c/ vs. /ch/  ca ‘son’, cha ‘salt’; caf ‘the chir pine, Himalayan long-leaved pine, Pinus roxburghii’, chaf ‘wicker or bamboo basket to carry a baby’; ciniksa ‘to impregnate, conceive’, chinik ‘perilla, edible seed, Perilla frutescens’.

/j/ vs. /jh/  jinchiri ‘clitoris’, jhinyak ‘catapult’.

/t/ vs. /th/  tamsa ‘to loose’, thamsa ‘to insert, add, put in’; taña ‘to be happy, smile’, thansa ‘to be healthy’; tasa ‘to boil’; thasa ‘to be’.

/d/ vs. /dh/  dai ‘towards’, dha ‘he, she, it’; dabsa ‘to measure, fill’, dhabasa ‘on the other side’.

/p/ vs. /ph/  pakpak ‘cone or pod of the plantain flower’, phakphak ‘dry flour’; peksa ‘to strip bamboo’, pheksa ‘to tear something apart, split’.

/b/ vs. /bh/  betre ‘bamboo mat’, bhere ‘the wild cherry tree, Prunus pum-dum’; buturu ‘muzzle (for cows, buffaloes, goats)’, bhutbhute ‘the white-hot centre of a fire’.

3.7.3 Distinctiveness of nasals

/m/ vs. /n/  khome ‘the feathery inflorescence of the millet plant’, khoja ‘a small basket for carrying fish’; man ‘body’, na‘ and’; myu ‘cloth, clothes, material’, nyu ‘brain’; thamsa ‘to insert, put in’, thansa ‘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. /n/  mesa ‘water buffalo’, nesa ‘to hit, strike’; miy ‘clothes, clothes, material’, niy ‘stone, rock’.

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

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

/n/ vs. /n/  nasa ‘to say, tell, inquire, order, ask’, nasa ‘to be infested with lice’; nyu ‘brain’, nu ‘later’.

3.7.4 Distinctiveness of other consonants

/s/ vs. /x/ vs. /l/  sasa ‘vein, tendon, ligament’, rasas ‘to come’, lasa ‘Indian rhododendron, Melastoma malabathricum’; sisa ‘to die’, rise ‘the tree, Maesa chisia’, lisa ‘to scatter, broadcast’; kosa ‘bone’, korsa ‘to weed with a hoe’, kolsa ‘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’.
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 [’] 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 of more, in which the stress falls on the second syllable:

\[
\begin{array}{ll}
ca & \text{son [one syllable]} \\
\text{[tsa]} & \\

bok & \text{maize or rice inflorescence [one syllable]} \\
\text{[’bok’]} & \\

hara & \text{what? [two syllables]} \\
\text{[hara]} & \\

akyarak & \text{the bulb of an arum lily, } Arum campanulatum \\
\text{[’akjarak’]} & \text{[three syllables]} \\

bosa & \text{to grow (of crops) [two syllables]} \\
\text{[’boša]} & \\

kerepsa & \text{to cry, weep [three syllables]} \\
\text{[ke’repsa]} & \\

cinampasa & \text{to cause to amuse, make play [four syllables]} \\
\text{[tsinampaša]} & \\
\end{array}
\]

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]

**thānjaransisa** 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]

*kerep-ṇa-n* I cried [three syllables]

*cinampay-ṇa-du* they are made to play [five syllables]

*phak-si-du* s/he’s eating by throwing a mouthful at a time into his mouth [three syllables]

*thānjaransisī-ṇa-du* I am lying on my back without sleeping [six syllables]

### 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:

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

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

*ai* pus [\(\text{ai}\)] (V)

*au* mango [\(\text{au}\)] (V)

---

7) Loans from Nepali may deviate from this scheme.
A syllable may also consist of a consonant and a vowel (C_iV), in which (C_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:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Syllable Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca</td>
<td>son</td>
<td>(C_iV)</td>
</tr>
<tr>
<td>[tsa]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ni</td>
<td>we, honey</td>
<td>(C_iV)</td>
</tr>
<tr>
<td>[ni]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>he, she, it</td>
<td>(C_iV)</td>
</tr>
<tr>
<td>[jo]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A syllable may consist of a consonant, a vowel and another consonant (C_iVC_f), in which (C_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/, /tʃ/, /k/, /b/, /g/, /m/, /n/, /ŋ/, /ŋ/ , /ʔ/, /s/, /ʃ/ and /l/, some examples of which are given below:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Syllable Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>donj</td>
<td>intestines</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[dɔŋ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ban</td>
<td>friend</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[ban]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dol</td>
<td>valley, deep place</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[dɔl]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lak</td>
<td>hand, arm</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[lak]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>laʔ</td>
<td>hand, arm</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[laʔ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mus</td>
<td>body hair, head hair</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[muʃ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pur</td>
<td>nipple</td>
<td>(C_iVC_f)</td>
</tr>
<tr>
<td>[pur]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A syllable may also consist of a consonant and a vowel (\(C_iV\)) which are separated by a glide (G). The phonemes /l/, /r/, /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:

- **blifsa**  
  [blĩša]  
  to reverse, overturn

- **glensa**  
  [glenša]  
  to be left over (of food)

- **klen thasa**  
  [kleŋ ʃhaša]  
  to be full [Dolakh dialect]

- **plefsa**  
  [pleňša]  
  to become full, be filled [Sindhupalcok dialect]

The phoneme /r/ is attested as a post-consonantal glide following /b/, /d/, /k/, /kh/, /p/, /s/ and /t/:

- **brof**  
  [bronŋ]  
  mildew

- **droçossa**  
  [dɾoʃsa]  
  to run, flee

- **krepsa**  
  [krepsa]  
  to cry, weep

- **khrimsa**  
  [kʰɾimša]  
  to twist, braid, entwine

- **priŋ**  
  [prŋ]  
  outside
**srai**
the tree *Eurya japonica*

**traba**
ashes

The phoneme /y/ is attested as a post-consonantal glide following /b/, /c/, /ch/, /d/, /g/, /k/, /kh/, /j/, /l/, /m/, /n/, /ŋ/, /p/, /r/, /s/, /t/, /tʃ/ and /th/, some examples of which are given below:

**cyasa**
to eat

**chyasa**
to be pulled off, scraped off

**dyaksa**
to mature, ripen

**gyal-gyalti**
fecund, highly fertile

**kyan**
needle wood tree, *Schima wallichii*

**khyaksa**
to fall from above

**lyuf**
stone, rock

**myuf**
cloth, clothes, material

**nyu**
brain

**tyaŋ**
then, well, and
The phoneme /w/ is attested as a post-consonantal glide following /g/ and /k/ only:

- gwi [gwi] thief, robber
- gwañiniq [gwañiniq] 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 /thiiŋ/ [tʰŋ]. 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:

- syapša [sjapša] a species of small bird (C_i GVC_i CV)
- aðipša [aðipša] to suckle on mother’s milk (V C_i VC_i CV)
- tam-tam [jamṭam] white clay (C_i VC_i CV)

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/, /t/, /k/, /n/, /ŋ/, /s/ and /l/ are attested as geminates in native Thangmi lexical items:
pup-pap   sweepings
[puppap]

botton   thorny bamboo, \textit{Bambusa arundinacea}
[bottan]

gyatta   loincloth
[giaṭṭa]

ukkar   wild cush-cush, yam, \textit{Dioscorea deltoidea}
[ukkar]

hen-no   take!
[henno]

syunjan   garuga, \textit{Garuga pinnata}
[sjunjan]

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

kulla   ear
[kulla]

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

ciyay-ṇa-du   I speak
[tsidzaṇḍadu]

way-ṇa-n   I came up
[waṇṇan]

The Sindhupālcok 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 toː] and aṭṭhe apraca ‘very good, excellent’ which is often pronounced with lengthened initial vowels on each word, as in [aṭṭhe 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 [dhuː] is often rendered as [dhuː:] 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 [a - ə] 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 [a - ə] /ã/. 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 homophonous 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 gāi ‘cow’, which is disyllabic in Nepali but a monosyllabic diphthong when articulated by Thangmi speakers: gai [gai], or the trisyllabic Nepali thakāi ‘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 pa∂hāunu ‘to teach (literally ‘to cause to learn’)’ and their standard non-causative transitive or intransitive forms, such as pa∂hnu ‘to read, study’, are slightly reworked when borrowed into Thangmi. Causative verb forms from Nepali lose the causative and infinitive elements <-âunu> and receive <-aisa> in Thangmi, as in Nepali pa∂hāunu ‘to teach’ and Thangmi pa∂haisa [pa∂haisa] ‘to teach’. Non-causative verb forms which Thangmi speakers borrow from Nepali undergo a slightly different process: the Nepali infinitive suffix <-nu> is replaced with <-aisisa> (ai + REF + INF), as in Nepali pa∂hnu ‘to read, study’ and Thangmi pa∂haisisa [pa∂haisa] ‘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 â 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 /ʔ/ from the Sindhupâлcok dialect of Thangmi is always indicated in the orthography, as in loʔosa [loʔosa] ‘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 [hikʰiksa] and emphatically not [hikʰiksa]. Hyphens are further used to separate the components of reduplicative, rhyming and onomatopoeic forms, as in tyay-tyay [tjâŋtjâŋ] ‘naked’ or pup-pap [puppap] ‘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 Devanâgarî 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 des^ ‘place, quarter, region, province, country,
7. Bibliography


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

Articles

GIS (Geographic Information System) Based Analysis and Evaluation of Cognitive Maps: A Preliminary Approach to the Spatial Cognition of the Pastoral Dodoth in North-eastern Uganda .......................................................... TSUMURA, Hiro’omi · KAWAI, Kaori · 1

Further Evidence in Favour of the Affixal Origin of Degema Clitics .............................................................................................................................. KARI, Ethelbert E. · 43

The Phonology of Thangmi: A Tibeto-Burman Language of Nepal .............................................................. TURIN, Mark · 63

Esquisse du ketiene, petite unite du bantou B. 80 .................................................................................. MANGULU, Motingea · 105

Kiswahili Intellectualization Efforts in Tanzania ........................................ MWANSOKO, Hermas J. M. · 151

Consideration of the Correlation among Infants, Kinship, and Spirits in the Southwest of the Republic of Benin ........................................................................... TANAKA, Masataka · 163

Source Materials and Remarks

Transnational Migration and Community Formation among Yunnanese Chinese in Northern Thailand ....................................................................................... WANG, Liulan · 211

A Collated and Annotated Japanese Translation of the "Baiguo Yinyou" ........................................................................................................... TATEISHI, Kenji · 263

Some Sociolinguistic Aspects of |Gui Communities ............................................................... NAKAGAWA, Hirosi · 293