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## The Phonology of Thangmi: A Tibeto-Burman Language of Nepal

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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 Sindhupālcok 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 bazār 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<sub>i</sub>) (G) V (C<sub>f</sub>)

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

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**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
2. Vowels
3. Consonants
4. Phonotactics, syllables and the Thangmi word
5. The Phonology of loans from Nepali
6. The orthography
7. Bibliography

### 1. Introduction

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 Sindhupālcok 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 Dolakhā bazār 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 Dolakhā. 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

**Table 1. Thangmi Phonemes**

| vowel phonemes     |    |   |     |    |
|--------------------|----|---|-----|----|
| i                  |    |   |     | u  |
|                    | e  |   |     | o  |
|                    |    | a | â   |    |
| diphthongs         |    |   |     |    |
| ei                 | ai |   | oi  | ui |
| eu                 | au |   | ou  |    |
| consonant phonemes |    |   |     |    |
| k                  | kh | g | gh  | ŋ  |
| c                  | ch | j | jh  |    |
| ʈ                  | ʈh | h | ɟh  | ɳ  |
| t                  | th | d | dh  | n  |
| p                  | ph | b | bh  | m  |
|                    | y  | r | l   | w  |
|                    | s  | h | (?) |    |

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 [ɪ] in closed syllables:

*cici*                      meat  
[tsitsi]

*tim*                        mortar  
[tɪm]

*lisa*                        to scatter, to broadcast  
[lɪʂa]

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

*pur*                         nipple  
[pur]

*ulam*                      path, road, way  
[ulam]

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 [e]:

*elepe*                      spleen  
[ɛlɛpɛ ~ elepe]

*ahel*                        garuga, *Garuga pinnata*  
[aɦel - aɦel]

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]:

*obo*                         white  
[obo]

*tokolok*                      hoe, long-handled mattock with a narrow blade  
[tokolək̚ʰ]

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  
[alak̚ʰ ~ælək̚ʰ]

*cahuca*                         man, men-folk  
[tsafuʈsa ~tsæfuʈsæ]

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 [ɑ], but in the speech of some Thangmi speakers it is given more closure and rendered as [ʌ]:

*âlâmtha*                        far, distant  
[ɑləm̚ʈha ~ʌləm̚ʈha]

*járâme*                         the spirit of death  
[dzarɑm̚ɛ ~dzʌr̥m̚ɛ]

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 *pānī* ‘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 *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 [ɛ] and concludes with the unrounded, front retracted allophone [ɪ]. In natural allegro speech, the diphthong /ei/ is occasionally realised close to the mid-open, unrounded front vowel [ɛ].

*kheisa*                      to pour, be poured  
[k<sup>h</sup>ɛɪʂa]

*kokoteisa*                  to become stiff from cold, become numb  
[kokoɬɛɪʂa]

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

*adhai*                        cucumber, *Cucumis sativus*  
[aɖ<sup>h</sup>ɑɪ]

*aikuca*                      long, slightly curved knife, *khukurī*  
[ɑɪkutsa]

*aspaisa*                     to throw something violently, smash  
[aʂpaɪʂa]

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

*joisa*                        to leak, penetrate  
[dzɔɪʂa]

*coi*                            blood  
[tsɔɪ]

*roimi*                        a Newar person  
[rɔmi]

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

*chuyituk uyu*              a small black rodent which lives in holes, mole  
[tʂ<sup>h</sup>juɪtʊk<sup>7</sup> uju]

*luisa* to become flaccid (particularly of a penis)  
[luiʃa]

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

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

*deusal* matches [Sindhupālcok dialect only]  
[d̥eʊsal]

*ghâneusa* to burp  
[g<sup>h</sup>ɑ̃neʊsa]

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

*câlauni* moon  
[tsalauni]

*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  
[aprɔu]

*jyousa* to burn wood, roast something  
[dzjɔʊsa]

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

*mākai*                      corn, maize (from Nepali *makai*)  
[mʌkai]

*mālai*                      to me, for me (from Nepali *malāi*)  
[mʌlai]

#### 2.4 Nasality

Nasalised vowels are not a distinctive feature of Thangmi phonology.<sup>1)</sup> 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 Sindhupālcok 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:

*ā dai*                      yes, uh-huh  
[ãɖai]

*heʔē*                      yes, uh-huh [Sindhupālcok dialect]  
[hɛʔē]

*hĩʔikote*                      over there [Sindhupālcok dialect]  
[hĩʔikotɛ]

*khoĩkhoĩsa*                      to cough [Sindhupālcok dialect]  
[kʰɔĩkʰɔĩʂa]

*hũhũisa*                      to writhe in pain, squirm  
[hũfiũʂa]

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:

|  |   |
|--|---|
| <i>ciŋya</i> ~ <i>cīyā</i> ~ <i>cīŋa</i> | nose                                    |
| [tsiŋja ~ tsījā ~ tsīŋa]                 |   |
| <i>saŋa</i> ~ <i>sāwā</i>                | finger millet, <i>Eleusine coracana</i> |
| [səŋa ~ s̄āwā]                           |   |
| <i>ŋyasa</i> ~ <i>ŋyāsa</i>              | to rot, become rotten, suppurate        |
| [ŋjaʂa ~ ŋjāʂa]                          |   |

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* [p<sup>h</sup>ōŋok̚] ‘inflated, swollen’, which is also attested in Dolakhā, results from assimilation to the following retroflex nasal:

|                        |   |
|------------------------|---|
| <i>bhāise</i>          | tomorrow [Sindhupālcok dialect]   |
| [b <sup>h</sup> āiʂe]  |   |
| <i>kīyabat</i>         | in three days [Sindhupālcok dialect]                                    |
| [kijabat̚]             |   |
| <i>phōŋok</i>          | inflated, swollen, squashy (especially used to describe people’s noses) |
| [p <sup>h</sup> ōŋok̚] |   |

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

|               |  |
|---------------|--|
|               | breast’.   |
| /i/ vs. /a/   | <i>arki</i> ‘deer’, <i>arka</i> ‘walnut, <i>Juglans regia</i> ’; <i>tisa</i> ‘to burn’, <i>tasa</i> ‘to boil’; <i>wari</i> ‘daughter-in-law’, <i>warak</i> ‘precipice, steep slope’.   |
| /i/ vs. /â/   | <i>ciŋya</i> ‘nose’, <i>câŋge</i> ‘pigweed, <i>Amaranthus viridis</i> ’; <i>dilaŋ</i> ‘stone resting place’, <i>dâlâk</i> ‘dust’.  |
| /u/           | <i>yu</i> ‘black-mouthed, white-bodied and long-tailed white monkey’, <i>uyu</i> ‘mouse’.  |
| /u/ vs. /e/   | <i>umansa</i> ‘to cook, prepare food’, <i>emsa</i> ‘to be exhausted by sitting in the sun’; <i>ṭhumsa</i> ‘to bury’, <i>ṭhemsa</i> ‘to break’; <i>suwa</i> ‘tooth’, <i>sewa</i> ‘greetings, hello’.  |
| /u/ vs. /o/   | <i>ṭupsa</i> ‘to husk rice or millet in a mortar’, <i>ṭopsa</i> ‘to wash clothes by beating them’; <i>ulum</i> ‘the upper part of a grinding stone’, <i>olon</i> ‘milk, yoghurt’.  |
| /u/ vs. /a/   | <i>uma</i> ‘wife’, <i>ama</i> ‘mother’; <i>cuksa</i> ‘to insert, pour into’, <i>caksa</i> ‘to cover, patch or overlay bamboo when there are holes’.  |
| /u/ vs. /â/   | <i>culi</i> ‘goat’, <i>câlauni</i> ‘moon’; <i>duru</i> ‘earthquake’, <i>dâri nunu</i> ‘cow or buffalo milk used in the death rite (ritual language)’.  |
| /e/ vs. /o/   | <i>leksa</i> ‘to swallow’, <i>loksa</i> ‘to drain’; <i>melsa</i> ‘to roast millet prior to grinding’, <i>molsa</i> ‘to mix in, stir up’.   |
| /e/ vs. /a/   | <i>ere</i> ‘ball made of ground grain used in the death rite (ritual language)’, <i>ari</i> ‘fear’; <i>nem</i> ‘house’, <i>nam</i> ‘name’; <i>reŋ</i> ‘flower’, <i>raŋ</i> ‘dry or unirrigated field’.   |
| /e/ vs. /â/   | <i>elepe</i> ‘spleen’, <i>âlâmtha</i> ‘far, distant’; <i>kerepsa</i> ‘to cry, weep’, <i>kâraisa</i> ‘to call out, be hungry’.  |
| /o/ vs. /a/   | <i>oŋgol</i> ‘Adam’s apple’, <i>aŋal</i> ‘shame, embarrassment’; <i>doŋ</i> ‘intestines, Brahman’, <i>daŋsa</i> ‘to look for, search, seek’.   |
| /o/ vs. /â/   | <i>kotale</i> ‘under, below’, <i>kâtâra</i> ‘trough, tray’.  |
| /a/           | <i>naŋ</i> ‘you’, <i>naŋa</i> ‘fish’.  |
| /a/ vs. /â/   | <i>alam</i> ‘red and white flag used in shamanic ritual’, <i>âlâmtha</i> ‘far, distant’; <i>bagale</i> ‘peach, <i>Prunus persica</i> ’, <i>bâgâle</i> ‘type of tree, <i>Maesa chisia</i> ’; <i>caŋ</i> ‘chir pine, <i>Pinus roxburghii</i> ’, <i>câŋge</i> ‘pigweed, <i>Amaranthus viridis</i> ’; <i>cali</i> ‘ladder’, <i>câlauni</i> ‘moon’. |
| /ei/ vs. /e/  | <i>kheisa</i> ‘to pour’, <i>khemsas</i> ‘to make, build’.  |
| /ai/ vs. /au/ | <i>ai</i> ‘pus’, <i>au</i> ‘mango’.  |
| /oi/ vs. /i/  | <i>joisa</i> ‘to leak’, <i>jisa</i> ‘to chop, split’; <i>coi</i> ‘blood’, <i>cile</i> ‘tongue’; <i>roimi</i> ‘a Newar person’, <i>rim</i> ‘homemade beer drunk during death rite (ritual language)’.   |
| /ui/ vs. /u/  | <i>luisa</i> ‘to become flaccid’, <i>lunsa</i> ‘to climb, ride’; <i>mui</i> ‘banana’, <i>mus</i> ‘body hair’.  |
| /ui/ vs. /i/  | <i>luisa</i> ‘to become flaccid’, <i>lisa</i> ‘to scatter, broadcast’; <i>mui</i> ‘banana’, <i>mi</i> ‘person’.  |

|               |  |
|---------------|--|
| /eu/ vs. /e/  | <i>deusal</i> ‘matches’, <i>dese</i> ‘village’.                        |
| /au/          | <i>rulau</i> ‘cockroach’, <i>rul</i> ‘snake’.                          |
| /au/ vs. /a/  | <i>au</i> ‘mango’, <i>ayu</i> ‘pine-marten, <i>Martes flavigula</i> ’. |
| /au/ vs. /ou/ | <i>câlauni</i> ‘moon’, <i>calou</i> ‘wild nettle’.                     |
| /ou/ vs. /a/  | <i>aprou</i> ‘tump line, head strap’, <i>apraca</i> ‘good’.            |
| /ou/ vs. /o/  | <i>jyousa</i> ‘to burn wood’, <i>jyoksa</i> ‘to be burnt’.             |

### 3. Consonants

#### 3.1 Overview of consonant phonemes

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

Table 2. Thangmi Consonant Phonemes

|                       | <i>bilabial</i> | <i>dental</i> | <i>palatal</i> | <i>retroflex</i> | <i>velar</i> |
|-----------------------|-----------------|---------------|----------------|------------------|--------------|
| <i>voiceless</i>      | p               | t             | c              | ʈ                | k            |
| <i>aspirated</i>      | ph              | th            | ch             | ʈh               | kh           |
| <i>voiced</i>         | b               | d             | j              | ɖ                | g            |
| <i>breathy voiced</i> | bh              | dh            | jh             | ɖh               | gh           |
| <i>nasal</i>          | m               | n             |                | ɳ                | ŋ            |
| <i>glottal</i>        |                 |               |                |                  | ( ? )        |
| <i>fricative</i>      |                 |               | s              |                  |              |
| <i>trill</i>          |                 |               | r              |                  |              |
| <i>lateral</i>        |                 |               | l              |                  |              |
| <i>approximant</i>    | w               |               | y              | h                |              |

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.<sup>2)</sup> 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]:

|   |                                 |
|---|---------------------------------|
| <i>kapu</i><br>[kapu]                     | head                            |
| <i>aŋkalak</i><br>[aŋkalak <sup>ʔ</sup> ] | brown-green coloured lizard     |
| <i>lakaŋe</i><br>[lakaŋe]                 | radish, <i>Raphanus sativus</i> |
| <i>cikinsa</i><br>[tsikɪŋsa]              | to give someone a fright        |

Word-finally, the phoneme /k/ is a voiceless, unreleased, unaspirated dorso-velar stop [k<sup>ʔ</sup>] in the Dolakhā dialect and either completely glottalised [ʔ] or a voiceless, unreleased, unaspirated dorso-velar stop with a simultaneous glottal stop [ʔk<sup>ʔ</sup>] in the Sindhupālcok dialect:<sup>3)</sup>

|                                       |   |
|---------------------------------------|---|
| <i>akrak</i><br>[akrak <sup>ʔ</sup> ] | frog [Dolakhā dialect]                          |
| <i>akrak</i><br>[akraʔ]               | frog [Sindhupālcok dialect]                     |
| <i>ajik</i><br>[adzɪk <sup>ʔ</sup> ]  | cold (of food and water) [Dolakhā dialect]      |
| <i>ajik</i><br>[adziʔk <sup>ʔ</sup> ] | cold (of food and water) [Sindhupālcok 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 [k<sup>h</sup>]. It is not attested in word-final position:

3) For a more detailed description of the differences between the two dialects, see Turin (2000a).

|                      |                              |
|----------------------|------------------------------|
| <i>khen</i>          | face                         |
| [k <sup>h</sup> ɛn]  |                              |
| <i>aŋkhe</i>         | lap                          |
| [aŋk <sup>h</sup> ɛ] |                              |
| <i>rikhi</i>         | the tree, <i>Ficus lacor</i> |
| [rik <sup>h</sup> i] |                              |

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:

|                |  |
|----------------|--|
| <i>gaŋsa</i>   | to dry                                 |
| [gaŋsa]        |  |
| <i>goŋgiŋ</i>  | a green or brown flying praying mantis |
| [goŋgiŋ]       |  |
| <i>jaɣapsa</i> | to faint, have an epileptic fit        |
| [dzaɣapɣsa]    |  |

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 [g<sup>h</sup>].<sup>4)</sup> It is not attested in syllable-initial or word-final positions:

|                         |                                  |
|-------------------------|----------------------------------|
| <i>ghâŋeu</i>           | a burp                           |
| [g <sup>h</sup> aŋɛu]   |                                  |
| <i>aghorsa</i>          | to dig, scratch with fingernails |
| [ag <sup>h</sup> ɔrɣsa] |                                  |

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:

|   |  |
|---|--|
| <i>ghor-ghorsa</i>                      | to grunt (of a pig), roar (of a tiger) |
| [g <sup>h</sup> ɔrg <sup>h</sup> ɔrɣsa] |  |

4) For the reader's comfort, I have chosen to transcribe breathy voice using the raised 'h', as in [g<sup>h</sup>] rather than the phonetically accurate [ḡ].

*ghoŋloŋ-ghoŋloŋ*      loose fitting, baggy, wide, floppy  
 [g<sup>h</sup>ɔŋlɔŋg<sup>h</sup>ɔŋlɔŋ]

### 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:

*ʈampe*                      the magnolia tree, *Magnolia campbelli*  
 [ʈampe]

*kanʈi*                        young, fresh, unripe  
 [kanʈi]

*cyəʈamarəŋ*                a kind of thorny bush  
 [tsjaʈamarəŋ]

*lampəʈ*                      plain, farmyard  
 [lampəʈ]

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:

*ʈhoka*                        a large silver bracelet worn by women  
 [ʈʰoka]

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

*kuʈhup*                      tadpole  
 [kuʈʰupʰ]

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:

*ɖumla*                        common fig, *Ficus carica*  
 [ɖumla]

*hanḍa*                      a clay pot for cooking nettles  
[hanḍa]

*aḍip̄sa*                    to tear pieces of tough meat off the bone  
[aḍip̄sa]                    with one's teeth

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

*ḍhopit*                    anus  
[ḍʰopit̚]

*ḍhokse*                   a large bamboo basket used for carrying manure  
[ḍʰok̚sɛ]

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

*ḍholoŋ-ḍholoŋ*           being wide in circumference or diameter  
[ḍʰolɔŋḍʰolɔŋ]

### 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:

*cabusa*                    to carry  
[tsabu̯sa]

*demca*                    load  
[ḍɛm̄tsa]

*apraca*                    good, clean, nice  
[apratsa]

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:

|   |   |
|---|---|
| <i>chinik</i><br>[ts <sup>h</sup> inik <sup>ˀ</sup> ] | perilla, edible seed, <i>Perilla frutescens</i> |
| <i>jinchiri</i><br>[dzimts <sup>h</sup> iri]          | clitoris  |
| <i>cacha</i><br>[tsats <sup>h</sup> a]                | grandson  |

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:

|                          |                                 |
|--------------------------|---------------------------------|
| <i>jireŋ</i><br>[dzireŋ] | red wasp                        |
| <i>dunji</i><br>[ɖundzi] | lean, thin, meagre, without fat |
| <i>aja</i><br>[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 [dz<sup>h</sup>]. 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 Sindhupālčok dialect. The phoneme /jh/ is also widely attested in loan words from Nepali in both dialects.

|  |                                 |
|--|---------------------------------|
| <i>jhinyak</i><br>[dz <sup>h</sup> inj <sup>ˀ</sup> jak <sup>ˀ</sup> ] | catapult, trap                  |
| <i>jhyałtuŋ</i><br>[dz <sup>h</sup> jal <sup>ˀ</sup> tuŋ]              | a vessel to carry burning coals |
| <i>kurujhin</i><br>[kurudz <sup>h</sup> in]                            | a kind of blemish or spot       |

### 3.2.4 Dental stops

The phoneme /t/ is a voiceless, unaspirated dental or alveolar stop [t̪] 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:

|                            |   |
|----------------------------|---|
| <i>toŋsa</i><br>[t̪oŋsa]   | to wash clothes   |
| <i>altak</i><br>[alt̪ak̚]  | the Nepalese rhododendron tree,<br><i>Rhododendron arboreum</i> |
| <i>kotale</i><br>[kot̪ale] | under, below (of a place)                                       |
| <i>aʈit</i><br>[aʈit̪]     | the whistling thrush, <i>Myiophoneus caeruleus</i>              |

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:

|                                |                                      |
|--------------------------------|--------------------------------------|
| <i>themba</i><br>[tʰɛmba]      | doorframe, doorway                   |
| <i>cyurthin</i><br>[tsjurtʰɪn] | a mouth shaped like a monkey's mouth |
| <i>athaŋsa</i><br>[atʰaŋsa]    | to become light                      |

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:

|                          |                      |
|--------------------------|----------------------|
| <i>doksa</i><br>[d̪oksa] | to peck, sting, bite |
|--------------------------|----------------------|

|                                  |                     |
|----------------------------------|---------------------|
| <i>denderek</i><br>[d̪end̪erek̚] | coarse, rough       |
| <i>adum</i><br>[aɖum]            | hot (food or drink) |

The phoneme /dh/ is a voiced, breathy (or murmured) dental or alveolar stop [d̪<sup>h</sup>] 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:

|   |                                       |
|---|---------------------------------------|
| <i>dhiri</i><br>[d̪ <sup>h</sup> iri]     | thunder                               |
| <i>dhapre</i><br>[d̪ <sup>h</sup> apre]   | Curaçao aloe, <i>Aloe vera</i>        |
| <i>kadhrap</i><br>[kaɖ <sup>h</sup> rap̚] | species of plant (Latin name unknown) |

### 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]:

|                                |           |
|--------------------------------|-----------|
| <i>paŋku</i><br>[paŋku]        | water     |
| <i>pampanek</i><br>[pampanek̚] | butterfly |
| <i>papasek</i><br>[papafɛk̚]   | testicles |

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

|                        |  |
|------------------------|--|
| <i>asip</i><br>[asip̚] | a species of tree (Latin name unknown) |
|------------------------|--|

|               |  |
|---------------|--|
| <i>kaŋtap</i> | a chip of bamboo or splint of wood used to |
| [kaŋtapʰ]     | 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.

|                  |   |
|------------------|---|
| <i>phase</i>     | flour   |
| [pʰa.ʃɛ]         |   |
| <i>lamphaŋsa</i> | to cross over, step over (someone or something) |
| [lampʰaŋsa]      |   |
| <i>aphinca</i>   | light (in weight), thin, narrow                 |
| [apʰintsa]       |   |
| <i>laphar</i>    | 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:

|                  |   |
|------------------|---|
| <i>bosiŋ</i>     | alder, Nepal black cedar, <i>Alnus nepalensis</i> |
| [boʃiŋ]          |   |
| <i>domba</i>     | tree  |
| [dɔmba]          |   |
| <i>kitriŋbas</i> | in four days                                      |
| [kiʈriŋbaʃ]      |   |
| <i>abu</i>       | 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.

|                 |  |
|-----------------|--|
| <i>bhâmbâla</i> | a species of tree (Latin name unknown) |
| [bʰambala]      |  |

*bheterek* bamboo mat  
[b<sup>h</sup>ɛ̄t̚ɛrɛk̚]

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  
[b<sup>h</sup>ūt̚b<sup>h</sup>ūt̚ɛ̄]

### 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  
[ŋaʂa]

*cârŋa* liver  
[tsaŋa]

*aŋil* gum(s)  
[aŋil]

*loŋsa* to do, make  
[lɔŋsa]

*akloŋ* grasshopper, locust  
[aklɔŋ]

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

*ŋɛpsa* to crush with a stone, bruise by falling  
[ŋɛpʂa ~ɽɛpʂa]

*kuchipŋasa* to be bored, have a bad experience  
[kuts<sup>h</sup>ɪpŋaʂa ~kuts<sup>h</sup>ɪpɽaʂa]

*alaloŋoŋ* large bamboo mat used in death rituals into  
[alaloŋoŋ ~ alaloɽoŋ] which a corpse is rolled

*aŋeŋsek* kidney  
[aŋeŋ]ʃekʰ ~ aɽeŋ]ʃekʰ]

*kaŋtu* neck, throat  
[kaŋtu ~ kaɽtu]

*cicikoŋ* a block of wood on which to cut things  
[tsitsikoŋ ~ tsitsikoɽ]

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

*nembo* other person  
[ɲembo ~ nembo]

*semni* a Tamang person  
[ʃemɲi ~ ʃemni]

*chyunupuɽuk* the protruding behind of a chicken  
[tʰyũɲupuɽukʰ ~ tʰyũnupuɽukʰ]

*yanataša* to deliver  
[jaɲataʃa ~ janataʃa]

*yante* hand-driven millstone, grindstone, quern  
[jaɲte ~ janɽe]

*akan* barley, *Hordeum vulgare*  
[akaɲ ~ 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]

|                           |   |
|---------------------------|---|
| <i>dokmaŋ</i><br>[dɔkmaŋ] | Nepal pepper, prickly ash, <i>Zanthoxylum armatum</i> |
| <i>cime</i><br>[cime]     | hair (only on the head)                               |
| <i>cumsa</i><br>[cumʂa]   | to seize, hold, grab, catch, grasp, clasp             |
| <i>nem</i><br>[nem]       | house   |

### 3.4 Glottal stop

The phoneme /ʔ/ is an energetically articulated glottal stop [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, /ʔ/ has phonemic status in Sindhupālcok 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 Sindhupālcok dialect:

|                             |  |
|-----------------------------|--|
| <i>asaʔasa</i><br>[aʃaʔaʂa] | to itch                                |
| <i>abeʔesa</i><br>[abeʔeʂa] | to carry a child on one's back         |
| <i>jiʔisa</i><br>[dziʔiʂa]  | to split in two                        |
| <i>loʔosa</i><br>[loʔoʂa]   | to drain, pour out                     |
| <i>buʔusa</i><br>[buʔuʂa]   | to cover, cover up, put a lid on a pot |

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

|                          |       |
|--------------------------|-------|
| <i>cyaʔe</i><br>[tʂjaʔe] | night |
|--------------------------|-------|

|                |                     |
|----------------|---------------------|
| <i>haʔi</i>    | how much, how many? |
| [haʔi]         |                     |
| <i>aʔum</i>    | egg                 |
| [aʔum]         |                     |
| <i>kiʔuliŋ</i> | bottom, buttocks    |
| [kiʔuliŋ]      |                     |

In a handful of cases, the phoneme /ʔ/ occurs in syllable-final position in polysyllabic lexical items. In these cases, unglottalised articulations are universally rejected by speakers of the Sindhupālcok dialect:

|                 |   |
|-----------------|---|
| <i>iʔbliŋ</i>   | aright, right side up, right way up                       |
| [iʔbliŋ]        |   |
| <i>jaʔco</i>    | wheat, <i>Triticum sativum</i> , <i>Triticum aestivum</i> |
| [dzaʔtso]       |   |
| <i>pecyeʔsa</i> | small, cramped (of a habitation or living place)          |
| [petsjeʔʂa]     |   |
| <i>amaʔsa</i>   | to beg  |
| [amaʔʂa]        |   |

At first glance, word-final glottal stops which follow a vowel in the Sindhupālcok dialect appear to be allophones of final consonants, particularly when compared with cognate forms from the Dolakhā dialect in which these lexical items indeed possess final consonants, as in *akraʔ* [akraʔ] ‘inedible toad or frog with webbed feet’ (Sindhupālcok) versus *akrak* [akrakʰ] ‘inedible toad or frog with webbed feet’ (Dolakhā). However, this putative allophonic explanation must be discounted for a number of reasons. First, there is no systematic opposition between Dolakhā [-k] and Sindhupālcok [-ʔ], and a number of Sindhupālcok lexical forms attest the same final voiceless velar stop as recorded for Dolakhā. Second, final vowels may be glottalised in Sindhupālcok in instances when the cognate Dolakhā lexical form exhibits a word-final vowel. Third, speakers of the Sindhupālcok 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/.

|                            |   |
|----------------------------|---|
| <i>alaʔ</i>                | small wooden or bamboo foot bridge [Sindhupālcok dialect] |
| <i>alak</i>                | small wooden or bamboo foot bridge [Dolakhā dialect]      |
| [alaʔ ~ alakʰ]             |   |
| <i>asariʔ</i>              | taste [Sindhupālcok dialect]                              |
| <i>asare</i>               | taste [Dolakhā dialect]                                   |
| [aʃariʔ ~ aʃare]           |   |
| <i>asariʔ</i>              | common fly [Sindhupālcok dialect]                         |
| <i>asareŋ</i>              | common fly [Dolakhā dialect]                              |
| [aʃariʔ ~ aʃareŋ]          |   |
| <i>lonɔʔ</i>               | sternum, middle of chest [Sindhupālcok dialect]           |
| <i>lonɔ</i>                | sternum, middle of chest [Dolakhā dialect]                |
| [lonɔʔ ~ lonɔ]             |   |
| <i>jinchiriʔ</i>           | clitoris [Sindhupālcok dialect]                           |
| <i>jinchiri</i>            | clitoris [Dolakhā dialect]                                |
| [dzɪntsʰiriʔ ~ dzɪntsʰiri] |   |

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:<sup>5)</sup>

|               |  |
|---------------|--|
| <i>ceʔ</i>    | the chestnut tree, <i>Castanopsis hystrix</i> [Sindhupālcok dialect] |
| <i>ce</i>     | the chestnut tree, <i>Castanopsis hystrix</i> [Dolakhā dialect]      |
| [tseʔe ~ tse] |  |
| <i>boʔ</i>    | inflorescence of maize [Sindhupālcok dialect]                        |
| <i>bok</i>    | inflorescence of maize or rice [Dolakhā dialect]                     |
| [boʔo ~ bək]  |  |

### 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 [j]. 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 [boʔo].

neme /s/ as [ʃ] while older and monolingual Thangmi speakers tend towards a palatal articulation [j]. The allophone [j] is universally rejected in syllable-initial position following a consonant, as in *seksa* [ʃekʂa] and explicitly not \*[jekʃa]. It is possible that a genuine morphophonological distinction between [ʃ] and [j] existed in Thangmi at one point, and that the allophones were in complementary distribution. Perhaps with the encroachment of Nepali, in which *s*, *ś* and *ṣ* are now pronounced and used more or less interchangeably, the distinction has been likewise eroded in Thangmi.<sup>6)</sup> The phoneme /s/ is attested in word-initial, syllable-initial, intervocalic and word or syllable-final positions:

|   |                                    |
|---|------------------------------------|
| <i>sempir</i><br>[ʃempɪr ~ ʃempɪr]      | ginger, <i>Zingiber officinale</i> |
| <i>serekša</i><br>[ʃerekʂa ~ ʃerekʂa]   | to get up, wake up, arise          |
| <i>amisa</i><br>[amiʂa ~ amiʃa]         | to sleep                           |
| <i>ustok</i><br>[uʂtəkʰ ~ uʃtəkʰ]       | spit, spittle, sputum, saliva      |
| <i>citabaš</i><br>[tʂitabaʂ ~ tʂitabaʃ] | the day after tomorrow             |

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:

|                           |   |
|---------------------------|---|
| <i>raphil</i><br>[rapʰɪl] | tear (n., from the eye)                     |
| <i>gamra</i><br>[gamra]   | molar, jaw                                  |
| <i>bârma</i><br>[barma]   | bouquet grass, <i>Thysanolaena agrestis</i> |

6) The historical status of the Nepali sibilants *s*, *ś* and *ṣ* 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 *ś* and *ṣ* on the other.

|                         |   |
|-------------------------|---|
| <i>akar</i><br>[akar]   | short-tailed Himalayan jungle cat, <i>Felis chaus</i> |
| <i>baraŋ</i><br>[baraŋ] | platform of boards or bamboo, shed, stall             |

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:

|  |   |
|--|---|
| <i>lembe</i><br>[lembe]                | flat winnowing tray made of bamboo                  |
| <i>sinlati</i><br>[ʃɪnlati]            | butterfly bush, <i>Buddleja (Buddleia) asiatica</i> |
| <i>calak</i><br>[tsalak <sup>1</sup> ] | air potato, <i>Dioscorea bulbifera</i>              |
| <i>duldul</i><br>[duldul]              | the flying male of the white ant                    |
| <i>hucil</i><br>[hucil]                | nocturnal forest eagle-owl, <i>Bubo nipalensis</i>  |

### 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 [fi] in intervocalic position. The phoneme /h/ is attested in word-initial and intervocalic positions only:

|                            |                                     |
|----------------------------|-------------------------------------|
| <i>hapsa</i><br>[hapsa]    | to aim, fire, shoot, hunt           |
| <i>ahunsa</i><br>[afiunsa] | to pick up (from the ground), pluck |

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

|                       |       |
|-----------------------|-------|
| <i>hara</i><br>[hara] | what? |
|-----------------------|-------|

*hara-kai*                    what for, for what reason, why?  
[hara-kai]

*hani*                        how many, how much?  
[hani]

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

*haŋ-haŋ*                    steam  
[haŋhaŋ]

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:

*hwaŋ-hwaŋ*                open, spacious, wide [Dolakhā dialect]  
[hwaŋhwaŋ]

*hwali*                        four [Sindhupālcok dialect]  
[hwali]

*hwalŋa*                      five [Sindhupālcok dialect]  
[hwalŋa]

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]  
[hjaletʃ<sup>h</sup>a]

*hya-te ~ hyu-te*        up there, over there  
[hja<sup>h</sup>tɛ ~ hju<sup>h</sup>tɛ]

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  
[n<sup>h</sup>abaʃa]

|                       |                                     |
|-----------------------|-------------------------------------|
| <i>nhu-te</i>         | over there (far and down)           |
| [n <sup>h</sup> uɬɛ]  |                                     |
| <i>nhaiko</i>         | lower storey [Sindhupālcok dialect] |
| [n <sup>h</sup> aɪko] |                                     |

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

|               |   |
|---------------|---|
| <i>yaŋ</i>    | today                                       |
| [jaŋ]         |   |
| <i>yuli</i>   | needle                                      |
| [juli]        |   |
| <i>uyu</i>    | mouse                                       |
| [uju]         |   |
| <i>paɬaya</i> | rice stalks once the paddy has been removed |
| [paɬaja]      |   |

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

|                        |                                     |
|------------------------|-------------------------------------|
| <i>byeŋga</i>          | lower storey [Sindhupālcok dialect] |
| [bjeŋga]               |                                     |
| <i>cyasa</i>           | to eat                              |
| [tsjaʂa]               |                                     |
| <i>ŋyal-ŋyal</i>       | soft, tender                        |
| [ŋjalŋjal]             |                                     |
| <i>agyosa</i>          | to call, cry, rumble                |
| [agjoʂa]               |                                     |
| <i>ghyoksa</i>         | to bark (of a dog)                  |
| [g <sup>h</sup> jɔkʂa] |                                     |

The phoneme /w/ is a voiced, median, labial-velar approximant [w] which is attested in word-initial, syllable-initial and intervocalic positions:

|                           |  |
|---------------------------|--|
| <i>wakhe</i><br>[wakhe]   | word, story, chat                            |
| <i>wa</i><br>[wa]         | chicken, hen                                 |
| <i>awa</i><br>[awa]       | locally-grown tobacco [Sindhupālcok dialect] |
| <i>lawā</i><br>[lawā]     | husband                                      |
| <i>cawasa</i><br>[cawaʂa] | to walk, wander, roam                        |

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:

|  |  |
|--|--|
| <i>kwai</i><br>[kwai]                    | all root vegetables, particularly potato   |
| <i>kwassa</i><br>[kwaʂsa]                | to be enough, feed to the full, be stuffed |
| <i>gwi</i><br>[gwi]                      | thief, robber                              |
| <i>gwaŋaŋiŋ</i><br>[gwaŋaŋiŋ ~ gwaʂaŋiŋ] | pregnant female                            |

### 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/   | <i>koŋkolyaŋ</i> ‘bent, twisted’, <i>goŋkolyaŋ</i> ‘snaked, articulated in many places’; <i>koʂe</i> ‘stone wall’, <i>goʂhe</i> ‘pubic hair’; <i>kari</i> ‘song’, <i>gare</i> ‘rooster’; <i>kaŋ</i> ‘boil, pimple’, <i>gaŋsa</i> ‘to dry’; <i>bagale</i> ‘peach, <i>Prunus persica</i> ’, <i>bakalcakal</i> ‘half-cooked, half-fraw’. |
| /kh/ vs. /gh/ | <i>khaŋou</i> ‘door’; <i>ghaŋau</i> ~ <i>ghaŋeu</i> ‘burp’; <i>khirimsa</i> ‘to braid,  |

|               |  |
|---------------|--|
|               | twist, entwine', <i>ghiritsa</i> 'to scratch, peel off'; <i>agha?</i> 'crow, raven', <i>akho</i> 'grasshopper'.  |
| /t/ vs. /d/   | <i>teksa</i> 'to tear cloth or paper, lacerate', <i>deksa</i> 'to have enough sleep'; <i>ṭisa</i> 'to close, shut', <i>ḍisa</i> 'to comb someone's hair'; <i>aṭit</i> 'the whistling thrush', <i>aḍipsa</i> 'to suckle on mother's milk'.  |
| /th/ vs. /dh/ | <i>ṭhoka</i> 'large bracelet', <i>ḍhokse</i> 'large bamboo container or basket'.   |
| /c/ vs. /j/   | <i>calak</i> 'air potato, <i>Dioscorea bulbifera</i> ', <i>jalat</i> 'Nepalese hog plum, <i>Choerospondias axillaris</i> '; <i>ceksa</i> 'to bite, sting', <i>jeksa</i> 'to clean, wash'; <i>cisa</i> 'to throw, throw away', <i>jisa</i> 'to chop, split in two'; <i>cyokpa</i> 'a small bird', <i>jyoksa</i> 'to be burnt'; <i>cyou</i> 'fat, grease', <i>jyousa</i> 'to burn, roast'. |
| /ch/ vs. /jh/ | <i>chinik</i> 'perilla, edible seed, <i>Perilla frutescens</i> ', <i>jhinṭyak</i> 'catapult, trap'; <i>chyapaṅ</i> 'ritual pollution related to death', <i>jhyalṭuṅ</i> 'a vessel used to carry burning coals'.  |
| /t/ vs. /d/   | <i>taṅsa</i> 'to be happy, smile', <i>daṅsa</i> 'to look for, search'; <i>tapsa</i> 'to beat or play the drum', <i>dapsa</i> 'to measure, fill'; <i>ti</i> 'honey', <i>di</i> 'one'.   |
| /th/ vs. /dh/ | <i>thapu</i> 'fireplace, hearth', <i>dhapre</i> 'Curaçao aloe, <i>Aloe vera</i> '; <i>thumsa</i> 'to mark, stain, stick', <i>dhumba</i> 'mist, fog, cloud'.  |
| /p/ vs. /b/   | <i>pampanek</i> 'butterfly', <i>bampre</i> 'rib, chest, breast'; <i>paṅku</i> 'water', <i>baṅkal</i> 'stomach, belly'; <i>pene</i> 'vagina', <i>bena</i> 'brown oak of the Himalaya, <i>Quercus semecarpifolia</i> '; <i>pisa</i> 'to give', <i>bisa</i> 'to enter, go inside'.  |
| /ph/ vs. /bh/ | <i>phetelek</i> 'watery, moist', <i>bheterek</i> 'bamboo mat'; <i>phinphin</i> 'smooth, flat, even'; <i>bhimbira</i> 'termite'.  |

### 3.7.2 Distinctiveness of aspiration and breathy articulation

|              |   |
|--------------|---|
| /k/ vs. /kh/ | <i>kari</i> 'song', <i>kharu</i> 'old'; <i>keret</i> 'red, orange', <i>kherte</i> 'near, close'; <i>ken</i> 'cooked vegetable curry'; <i>khen</i> 'face'; <i>koṅ</i> 'trough', <i>khona</i> 'a small basket for carrying fish'.                 |
| /g/ vs. /gh/ | <i>gaṅa</i> 'spherical earthenware jug, large mud jar', <i>ghaṅau</i> 'burp'; <i>goṅgiṅ</i> 'a flying praying mantis', <i>ghoṅṅoṅ</i> 'loose fitting, wide, baggy'.   |
| /t/ vs. /ṭh/ | <i>ṭaṅsa</i> 'to open', <i>ṭhaṅsa</i> 'to discover a god'; <i>ṭasa</i> 'to tease, deride, joke, harass'; <i>ṭhasa</i> 'to scrape off, peel off, strip off'; <i>ṭesa</i> 'to remove corn cobs from the stalk'; <i>ṭhesa</i> 'to displace water'. |
| /d/ vs. /ḍh/ | <i>ḍoṅḍoṅ</i> 'the lower leaves or outer covering of a bamboo plant', <i>ḍholoṅḍholoṅ</i> 'being wide in circumference or diameter'.  |

|              |   |
|--------------|---|
| /c/ vs. /ch/ | <i>ca</i> ‘son’, <i>cha</i> ‘salt’; <i>caŋ</i> ‘the chir pine, Himalayan long-leaved pine, <i>Pinus roxburghii</i> ’, <i>caŋ</i> ‘wicker or bamboo basket to carry a baby’; <i>ciniksa</i> ‘to impregnate, conceive’, <i>chinik</i> ‘perilla, edible seed, <i>Perilla frutescens</i> ’. |
| /j/ vs. /jh/ | <i>jinchiri</i> ‘clitoris’, <i>jhinyak</i> ‘catapult’.  |
| /t/ vs. /th/ | <i>tamsa</i> ‘to loose’, <i>thamsa</i> ‘to insert, add, put in’; <i>taŋsa</i> ‘to be happy, smile’, <i>thaŋsa</i> ‘to be healthy’; <i>tasa</i> ‘to boil’; <i>thasa</i> ‘to be’.   |
| /d/ vs. /dh/ | <i>dai</i> ‘towards’, <i>dha</i> ‘he, she, it’; <i>dabsa</i> ‘to measure, fill’, <i>dhabasa</i> ‘on the other side’.  |
| /p/ vs. /ph/ | <i>pakpak</i> ‘cone or pod of the plantain flower’, <i>phakphak</i> ‘dry flour’; <i>peksa</i> ‘to strip bamboo’, <i>pheksa</i> ‘to tear something apart, split’.  |
| /b/ vs. /bh/ | <i>betre</i> ‘bamboo mat’, <i>bhere</i> ‘the wild cherry tree, <i>Prunus pud-dum</i> ’; <i>buthuru</i> ‘muzzle (for cows, buffaloes, goats)’, <i>bhutbhute</i> ‘the white-hot centre of a fire’.  |

### 3.7.3 Distinctiveness of nasals

|             |   |
|-------------|---|
| /m/ vs. /ŋ/ | <i>khoma</i> ‘the feathery inflorescence of the millet plant’, <i>khona</i> ‘a small basket for carrying fish’; <i>maŋ</i> ‘body’, <i>ŋaŋ</i> ‘and’; <i>myuŋ</i> ‘cloth, clothes, material’, <i>ŋyu</i> ‘brain’; <i>thamsa</i> ‘to insert, put in’, <i>thaŋsa</i> ‘to be healthy, be able’. |
| /m/ vs. /n/ | <i>mama</i> ‘father’s sister’s husband’, <i>nama</i> ‘with, together’; <i>man-sa</i> ‘to knead’, <i>namsa</i> ‘to smell’.   |
| /m/ vs. /ŋ/ | <i>mesa</i> ‘water buffalo’, <i>ŋesa</i> ‘to hit, strike’; <i>miŋ</i> ‘clothes, clothes, material’, <i>niŋ</i> ‘stone, rock’.   |
| /n/ vs. /ŋ/ | <i>nasa</i> ‘to put’, <i>ŋasa</i> ‘to be infested with lice’; <i>nesa</i> ‘to grind, pound’, <i>ŋesa</i> ‘to hit, strike’.  |
| /n/ vs. /ŋ/ | <i>thansa</i> ‘to move, transfer, change’, <i>thaŋsa</i> ‘to discover a god’; <i>nasa</i> ‘to put, place, position’, <i>ŋasa</i> ‘to say, tell, inquire, order, ask’.   |
| /ŋ/ vs. /n/ | <i>ŋasa</i> ‘to say, tell, inquire, order, ask’, <i>ŋasa</i> ‘to be infested with lice’; <i>ŋyu</i> ‘brain’, <i>nu</i> ‘later’.   |

### 3.7.4 Distinctiveness of other consonants

|                     |   |
|---------------------|---|
| /s/ vs. /r/ vs. /l/ | <i>sasa</i> ‘vein, tendon, ligament’, <i>rasa</i> ‘to come’, <i>lasa</i> ‘Indian rhododendron, <i>Melastoma malabathricum</i> ’; <i>sisa</i> ‘to die’, <i>rise</i> ‘the tree, <i>Maesa chisia</i> ’, <i>lisa</i> ‘to scatter, broadcast’; <i>kosa</i> ‘bone’, <i>korsa</i> ‘to weed with a hoe’, <i>kolsa</i> ‘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/ *was*a ‘to plough’, *yasa* ‘to feed, give food’, *has*sa ‘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 [ ' ] 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:

|                                   |   |
|-----------------------------------|---|
| <i>ca</i><br>[ˈtʂa]               | son [one syllable]  |
| <i>bok</i><br>[ˈbɔkʔ]             | maize or rice inflorescence [one syllable]                              |
| <i>hara</i><br>[ˈhara]            | what? [two syllables]   |
| <i>akjarak</i><br>[ˈakjarakʔ]     | the bulb of an arum lily, <i>Arum campanulatum</i><br>[three syllables] |
| <i>bosa</i><br>[ˈboʂa]            | to grow (of crops) [two syllables]                                      |
| <i>kerepsa</i><br>[keˈrepsa]      | to cry, weep [three syllables]  |
| <i>cinampasa</i><br>[tsiˈnampasa] | to cause to amuse, make play [four syllables]                           |

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:

|  |  |
|--|--|
| <i>phaksisa</i><br>[p <sup>h</sup> akʃiʃa] | to eat by throwing a mouthful at a time into the mouth [three syllables] |
| <i>thanṅaraṅsisa</i><br>[thanṅa'raṅʃiʃa]   | 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:

|   |   |
|---|---|
| <i>boy-an</i><br>[ˈbojan]                       | it grew [two syllables]   |
| <i>kerep-ṅa-n</i><br>[ke'repṅan]                | I cried [three syllables]   |
| <i>cinampay-eṅ-du</i><br>[tsi'nampajeṅdu]       | they are made to play [five syllables]  |
| <i>phak-si-du</i><br>[p <sup>h</sup> akʃiɖu]    | s/he's eating by throwing a mouthful at a time into his mouth [three syllables] |
| <i>thanṅaraṅ-si-ṅa-du</i><br>[thanṅa'raṅʃiṅaɖu] | 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:<sup>7)</sup>

$$(C_i) (G) V (C_f)$$

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

|                   |       |     |
|-------------------|-------|-----|
| <i>ai</i><br>[ai] | pus   | (V) |
| <i>au</i><br>[au] | mango | (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:

|                    |             |            |
|--------------------|-------------|------------|
| <i>ca</i><br>[tʂa] | son         | ( $C_iV$ ) |
| <i>ni</i><br>[ni]  | we, honey   | ( $C_iV$ ) |
| <i>to</i><br>[to]  | he, she, it | ( $C_iV$ ) |

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/, /t/, /k/, /b/, /g/, /m/, /n/, /ŋ/, /ŋ/, /ʔ/, /s/, /r/ and /l/, some examples of which are given below:

|                      |                      |               |
|----------------------|----------------------|---------------|
| <i>doŋ</i><br>[dɔŋ]  | intestines           | ( $C_iVC_f$ ) |
| <i>ban</i><br>[ban]  | friend               | ( $C_iVC_f$ ) |
| <i>dol</i><br>[dɔl]  | valley, deep place   | ( $C_iVC_f$ ) |
| <i>lak</i><br>[lakʰ] | hand, arm            | ( $C_iVC_f$ ) |
| <i>laʔ</i><br>[laʔ]  | hand, arm            | ( $C_iVC_f$ ) |
| <i>mus</i><br>[muʂ]  | body hair, head hair | ( $C_iVC_f$ ) |
| <i>pur</i><br>[pur]  | nipple               | ( $C_iVC_f$ ) |

|                     |               |                                   |
|---------------------|---------------|-----------------------------------|
| <i>rot</i><br>[rɔʈ] | landslide     | (C <sub>i</sub> VC <sub>r</sub> ) |
| <i>sem</i><br>[ʂem] | Tamang person | (C <sub>i</sub> VC <sub>r</sub> ) |

A syllable may also consist of a consonant and a vowel (C<sub>i</sub>V) 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:

|                                  |  |
|----------------------------------|--|
| <i>bliŋsa</i><br>[bliŋʂa]        | to reverse, overturn                             |
| <i>glensa</i><br>[glenʂa]        | to be left over (of food)                        |
| <i>kleŋ thasa</i><br>[kleŋ ʈaʂa] | to be full [Dolakhā dialect]                     |
| <i>pleŋsa</i><br>[pleŋʂa]        | to become full, be filled [Sindhupālcok dialect] |

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

|                              |                          |
|------------------------------|--------------------------|
| <i>broŋ</i><br>[brɔŋ]        | mildew                   |
| <i>droʔosa</i><br>[d̪rɔʔɔʂa] | to run, flee             |
| <i>krepsa</i><br>[kreʔʂa]    | to cry, weep             |
| <i>khrimsa</i><br>[kʰrimʂa]  | to twist, braid, entwine |
| <i>priŋ</i><br>[priŋ]        | outside                  |

*srai*                      the tree *Eurya japonica*  
[ʃraɪ]

*traba*                    ashes  
[traba]

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/, /t/ and /tʰ/, some examples of which are given below:

*cyasa*                    to eat  
[tsjaʃa]

*chyasa*                   to be pulled off, scraped off  
[tʃjaʃa]

*ɖyaksa*                 to mature, ripen  
[ɖjakʃa]

*gyal-gyalti*             fecund, highly fertile  
[gjalgjalʈi]

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

*khyaksa*                to fall from above  
[kʰjakʃa]

*lyuŋ*                     stone, rock  
[ljuŋ]

*myuŋ*                    cloth, clothes, material  
[mjʊŋ]

*ŋyu*                      brain  
[ŋju]

*tyaŋ*                     then, well, and  
[tjaŋ]

*ɸyan-ɸyan*                      naked  
[tɸjaŋtɸjaŋ]

The phoneme /w/ is attested as a post-consonantal glide following /g/ and /k/ only:

*gwi*                                thief, robber  
[gwi]

*gwaŋiŋiŋ*                      pregnant female  
[gwaŋiŋiŋ]

*kwai*                              root vegetables, particularly potato  
[kwai]

### 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 /thiŋ/ [tʰiŋ]. 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:

*syapɸa*                            a species of small bird                      (C<sub>i</sub>GVC<sub>f</sub> C<sub>i</sub>V)  
[sɸjapɸa]

*aɸipsa*                            to suckle on mother's milk                      (V C<sub>i</sub>V C<sub>f</sub> C<sub>i</sub>V)  
[aɸipsa]

*tam-tam*                            white clay    (C<sub>i</sub>V C<sub>f</sub> C<sub>i</sub>V C<sub>f</sub>)  
[tamɸtam]

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/, /tʰ/, /k/, /n/, /ŋ/, /s/ and /l/ are attested as geminates in native Thangmi lexical items:

|                             |   |
|-----------------------------|---|
| <i>pup-pap</i><br>[puppap]  | sweepings                                       |
| <i>botton</i><br>[bɔʈʈɔn]   | thorny bamboo, <i>Bambusa arundinacea</i>       |
| <i>gyaʈʈa</i><br>[gjaʈʈa]   | loincloth                                       |
| <i>ukkar</i><br>[ukkar]     | wild cush-cush, yam, <i>Dioscorea deltoidea</i> |
| <i>hen-no</i><br>[henno]    | take!   |
| <i>syuŋŋan</i><br>[sjuŋŋan] | garuga, <i>Garuga pinnata</i>                   |
| <i>hassa</i><br>[haʃʃa]     | to fall from a height, fall down and not die    |
| <i>kulla</i><br>[kulla]     | ear   |

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

|                                     |           |
|-------------------------------------|-----------|
| <i>ciɲaŋ-ŋa-du</i><br>[tsidzaŋŋadu] | I speak   |
| <i>waŋ-ŋa-n</i><br>[waŋŋan]         | I came up |

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:

|                        |                     |
|------------------------|---------------------|
| <i>huca</i><br>[hutsa] | baby, child, infant |
|------------------------|---------------------|

|                         |   |
|-------------------------|---|
| <i>huccha</i>           | baby, child, infant when being spoken to or |
| [hutsts <sup>h</sup> a] | referred to in a derogatory manner          |

### 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 [ho: ʈo:] and *atthe apraca* ‘very good, excellent’ which is often pronounced with lengthened initial vowels on each word, as in [a:ʈʰe a:pratsa]. 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 [d<sup>h</sup>u] is often rendered as [d<sup>h</sup>u:] 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 [ɑ] as a short, open, unrounded, front vowel [a] and not as a short, half-open, unrounded back vowel [ɑ ~ 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 [ɑ ~ ʌ] /â/. The result is that Nepali [ɑ] 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. Brahmins, Chetris and the members of the so-called ‘occupational castes’ imitate Nepali-speaking ethnic Thangmi by mimicking their inability to articulate Nepali [ɑ] 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 *gār* ‘cow’, which is disyllabic in Nepali but a monosyllabic diphthong when articulated by Thangmi speakers: *gai* [gɑi], or the trisyllabic Nepali *thakār* ‘weariness, fatigue’ which is disyllabic when rendered in Thangmi *thakai* [tʰakɑi].

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 lose the causative and infinitive elements <-āunu> and receive <-aisa> in Thangmi, as in Nepali *paḍhāunu* ‘to teach’ and Thangmi *paḍhaisa* [paḍʰɑiʂɑ] ‘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 *paḍhnu* ‘to read, study’ and Thangmi *paḍhaisisa* [paḍʰɑiʂiʂɑ] ‘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 [ɑ], 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 [ɑ], whether rendered in Roman or cursive script.

The staccato vowel following /ʔ/ from the Sindhupālcok dialect of Thangmi is always indicated in the orthography, as in *loʔosa* [lɔʔɔsɑ] ‘to drain, pour’. Word-internal morpheme boundaries are indicated with hyphens, as in *hen-sa* [hensɑ] (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 [hɪkʰɪksɑ] and emphatically not [hɪkʰɪksɑ]. Hyphens are further used to separate the components of reduplicative, rhyming and onomatopoeic forms, as in *ʃyaŋ-ʃyaŋ* [tʃaŋtʃaŋ] ‘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 *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').<sup>8)</sup>

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

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