Using native lexical resources to create technical neologisms for minority languages
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Several young Lahu speakers have been receiving graduate training in linguistics at Payap University in Chiang Mai, Thailand. However, the language of instruction in their linguistics courses is English or Thai, since like most other minority languages, Lahu lacks a technical vocabulary in which to discuss scientific subjects.

Faced with such a problem, languages typically resort to borrowing technical terminology from majority languages. In the case of Lahu, a language dispersed over several countries, borrowings have been flooding in from Chinese, Burmese, Shan, Northern Thai, Standard Thai, Lao, and Vietnamese. This makes it difficult to decide which languages to borrow technical terms from. It therefore seems to me that the best solution would be to invent such terms using native Lahu morphemes as much as possible.

In order to achieve this goal, I have been collaborating with a Lahu student at Payap to develop such a linguistic vocabulary. So far several hundred terms have been proposed, mostly in the realm of phonology. As this effort develops, we shall concentrate more on morphosyntactic and historical linguistic terminology. This paper discusses the issues involved in creating technical neologisms, and lists the terms so far proposed.*

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習的情況之下，很難決定拉祜語究竟應該從那些語言借貸技術語，所以我認為最好的方法是盡量用拉祜語的固有詞根製作這種詞語。

為了實現這個目標，我最近與一位泰國西北大學的拉祜族學生合作，發展語言學方面的技術詞彙。到目前為止，我們已經提出了幾百個新詞語，這些詞語多數在語音學範圍裡面。我們往後將會集中精神於語法形態和歷史語言學方面。本文討論製作新技術詞語所涉及的問題，並列出至今提出的詞語。

*Keywords*: Lahu, neologisms, technical vocabulary, lexicography, metaphorical extensions
*Keywords (Chinese)*: 拉祜語，新詞，技術詞彙，詞彙學，比喻延伸

*Title (Chinese)*: 使用本地詞彙為少數民族語言增添技術新詞
1. INTRODUCTION. Twenty-three years of my life (1965–1988) were devoted largely to the compilation of my Lahu-English dictionary.\(^1\) Whatever its merits, this dictionary has so far been of little use to the Lahu people themselves, to my increasing chagrin.\(^2\) In my youthful puristic zeal, I had adopted a rigorously phonemic transcription quite different from the three preexisting romanizations of Lahu. I also thought it would be helpful to the Burmese/Thai Lahu whose language I was studying to use for my dictionary an Indic-inspired alphabetical order determined by the position of articulation of the initial consonant, proceeding from the back of the mouth to the front: that is, first the stops and nasals in the order uvulars, velars, palatals, dentals, labials; then the fricatives (from back to front), and finally the liquid. Across the bottom of each printed page were “running feet”, listing the phonemes in alphabetical order,\(^3\) first the tones (using the carrying-vowel <$a>$), then the vowels, then the consonants (cf. Figure 1).\(^4\)

<INSERT FIGURE 1 ABOUT HERE>

This has made the dictionary virtually impenetrable, even for the minority of the Lahu population that is literate in one of the missionary transcriptions or the *pinyin*-based system used in China.\(^5\) Relatively few Lahu are literate in Burmese or Thai. On the other hand, most literate Lahu in Burma and Thailand have learned the roman alphabet in missionary schools,\(^6\) while

\(^1\) See ‘History of the Lahu Dictionary project’ (Matisoff 1988:1–8).
\(^2\) It has evidently been respected, if not used, by this minority of the Lahu population, as witness the fact that in the 1990’s I found it prominently displayed atop the TV set of Ça‑mɔ́, the best consultant during my 1970 fieldtrip, who confessed that he used it mostly to look at the plates in the back.
\(^3\) See Appendix A for the Black Lahu phonemic inventory.
\(^4\) Morphemes beginning with a vowel are alphabetized before all those that begin with consonants. This type of alphabetical order, loosely called *devanāgarī*, is used not only for Thai and Burmese, but also for all the other INDOSPHERIC literary languages of Southeast Asia, including Cham, Javanese, Mon, Khmer, and Tibetan, and is even reflected in Japanese *kana*.
\(^5\) For a discussion of the four competing transcriptions of Lahu, see Appendix B.
\(^6\) Lewis’ valuable dictionary (1986) lists the Lahu entries in the roman alphabetical order, each accompanied by a Thai gloss as well as an English one.
Lahu children in China learn their ABC’s during their first year of schooling, since the roman alphabet is necessary for the *pinyin* transcription of Chinese.

2. **Whose alphabetical order?** And yet perhaps I should not be too hard on myself. The very concept of alphabetical order—any alphabetical order—has been impossible to convey. Realizing this, I attempted back in 1977 to compose a long introduction to the dictionary in Lahu, written in the standard Baptist transcription, justifying my own orthography and alphabetical order on linguistic grounds. Even with the patient help of Yâ‑pā‑ɛ́, the chief consultant during my 1977 fieldtrip, this enterprise quickly foundered, largely due to the lack of a meta-linguistic vocabulary, and this introduction did not make it into the published dictionary.

It was not until very recently that I saw real hope that there could be rapid progress in creating metalinguistic terminology for Lahu. At the 42nd International Conference on Sino-Tibetan Languages and Linguistics (ICSTLL) in Chiang Mai (Oct. 2009), I was delighted to meet a group of Lahu graduate students in linguistics at Payap University. One of them, a young Yellow Lahu man named Aaron Tun, known familiarly by his Burmese nickname Maung Maung (‘younger brother’), expressed special interest in making the dictionary more accessible. I was deeply impressed by his zeal, and ultimately was able to invite him to spend two and a half months as a Visiting Scholar at the STEDT project in Berkeley (March 15-May 31, 2011). During his stay at Berkeley, he not only computerized all the Lahu texts I had collected during my fieldtrips to Thailand in the 1960’s and ’70’s, but he also worked with me on creating new Lahu metalinguistic terminology. This latter task was hugely enjoyable for both of us, as the rest of the STEDT staff can attest. A nearly complete list of these terms is provided in Appendix C.

3. **Native vs. borrowed morphemes in neologisms.** One possible solution to the lack of technical vocabulary would be to borrow morphemes from a major literary language. After all, most technical linguistic terms in English are borrowings from Latin or Greek, while Burmese, Khmer, and Thai linguistic terminologies are largely of Pali/Sanskrit origin. Yet the geographical
dispersal of the Lahu people makes the choice of donor language difficult. Should one use Burmese, Thai, or Chinese borrowings?

One advantage of using native material is the transparency of the compounds that result—unlike English terms opaque to most native speakers like con-sonant (‘sounding with’), ad-ject-ive (‘thrown next to’), ob-ject (‘thrown toward’) morph-eme (‘form + suffix’). Compare these with Maung Maung’s transparent coinages in 1a-d:

(1)  a. tân-khɔ̂
    begin-sound
    ‘consonant’
b. phə̀ʔ-tɔ̂
    reveal-word
    ‘adjective’
c. khān-pā
    undergo-NOM
    ‘object’
d. tɔ̂-hòʔ
    word-form
    ‘morpheme’

However, there is no reason to exclude long-standing loanwords into Lahu from Chinese, Burmese, or Tai, items such as ɔ̀‑šə́ ‘color/phonetic value’ (< Tai); cū‑yī ‘skill/-ology’ (< Chinese); tɔ(n) ‘segment/section’ (< Tai); pɔ̂(n) ‘add/put together’ (< Burmese); hê(n) ‘study/learn’ (< Tai); hòʔ ‘form/shape’ (ult. < Pali); ʰiʔ ‘something written/letter’ (ult. < Pali). In fact, when appropriate I favor using the more conservative, less Lahuized, nasalized versions of these old loanwords, as a way to reduce Lahu’s severe homophony problem, for example, tɔn ‘segment’ (as in tɔ̂‑tɔn ‘syllable’) vs. tɔ̄ ‘boundary’ (as in tɔ̂‑tɔ̄ ‘syllable boundary’) vs. tɔ̂ ‘word’.

8 This dispersal is actually a good thing from the point of view of retarding endangerment of the language.

Clearly the best way to use native Lahu lexical material is to coin new COMPOUNDS or COLLOCATIONS, since monosyllabic morphemes tend to be highly polysemous. As an extreme example, consider the morpheme $khɔ̀$ for which eight subsenses (2-9) are distinguishable, depending on the collocations in which it occurs:

(2) SOUND; NOISE
   a. bɔ̀ʔ-khɔ̀
      shoot-K
      ‘sound of shooting’
   b. phê-lò-khɔ̀
      dog-bark-K
      ‘sound of dogs barking’

(3) VOICE
   a. khɔ̀ ší ve
      K hoarse NOM
      ‘be hoarse’

(4) WORDS; A STRETCH OF SPEECH
   a. qa-mì-khɔ̀
      sing-do-K
      ‘song/poem’
   b. tô-pháy-khɔ̀
      speech-hide-K
      ‘riddle’

(5) LANGUAGE; VARIETY OF SPEECH
   a. Lâhû-khɔ̀
      ‘Lahu language’
   b. šu-khɔ̀
      others-K
      ‘foreign language’

(6) WORD; TURN OF PHRASE; SENTENCE

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a. khɔ̀ tê khɔ̀
K  one  K
‘one word/one phrase/one sentence’
b. khɔ̀-ŋɛ
K-short
‘short form (of a compound word)’
c. khɔ̀-yì
K-long
‘long form (of a compound)’
(7) WORDS OF ADVICE
a. khɔ̀ na ve
K  listen  NOM
‘listen to advice’
b. chɔ-mɔ̀-khɔ̀
person-old-K
‘wisdom of the elders/proverb/wise saying’
(8) PROBABLE REASON
a. yɔ̀ mâ šī ve khɔ̀
3  not  know/understand  REL  K
‘It’s probably because he doesn’t understand.’
(9) TONE (OF A TONE LANGUAGE) (neologism11)

4. DIFFICULTY OF THE TASK, AND INDISPENSABILITY OF THE NATIVE SPEAKER. It is not problematic to use native Lahu NOUNS for the various vocal organs, for example:
(10) a. ɔ̀-tôʔ-lop?
‘palate’
b. ɔ̀-tôʔ-lop? hɛ ve
palate  hard  NOM
‘hard palate’

11 See §5 below.
c. ɔ̀‑tôʔ‑lôʔ nû ve
   palate soft NOM
   ‘soft palate’

(11) a. ɔ̀‑šá
   ‘air/breath’
b. ɔ̀‑šá məʔ ve
   breath blow NOM
   ‘blow breath; aspirate’

(12) qá‑qə‑lə ‘larynx/glottis’

(13) cì ‘tooth/teeth’

(14) nā‑qhɔ̂ ‘nose’

(15) mɔʔ‑qɔ ‘mouth’

(16) a. mâ(‑gî)
   mouth-skin
   ‘lip(s)’
b. mâ‑gî‑khɔ̂
   ‘a labial sound’
c. mâ‑gî‑mèʔ‑khɔ̂
   ‘labial stop’

(17) a. ha‑tɛ̄
   ‘tongue’
b. ha‑tɛ̄‑mâ
   tongue-tip
   ‘tip of the tongue/apex’
c. ha‑tɛ̄ cĩ‑nɔʔ kì
   tongue attach place
   ‘tongue-root/dorsum’\footnote{12 See 61a (Appendix C).}
The seven Lahu tones are all conveniently nameable, using the simple words for ‘middle’ 
(ꜧ‑qꜧ‑ji), ‘high’ (mu), ‘low’ (nè), ‘long’ (yê), and ‘short’ (ɗe).\(^\text{13}\)

Several spatial nouns can easily be used in articulatory descriptions, as for vowel 
frontness and backness: (ꜧ‑)g̈û‑ši ‘front’, (ꜧ‑)q́‑ji ‘central’, (ꜧ‑)q̃‑nɔ́ ‘back’;\(^\text{14}\) (ꜧ‑)g̈û‑ši ve 
bù‑khɔ̀ ‘front vowel’.

Many other phonetic terms are more difficult, but even harder are phonological terms like 
complementary distribution, or grammatical concepts like relative clause, final 
unrestricted particle.

For such difficult cases, it is absolutely indispensable to be guided by educated native 
speakers. I could never have thought up most of Maung Maung’s creations, based as they often 
are on surprising metaphorical extensions of meaning. Only the native speaker has a sure sense 
of the ‘polysemy potential’ of common morphemes – that is, which metaphorical flights are 
instantly comprehensible to other speakers and which are obscure and unacceptable.

Among Maung Maung’s most inspired neologisms are the following:

(18) adjective
phɔʔ‑tɔ̀
unwrap/reveal-word
‘revealing word’

(19) verb
te‑tɔ̀
do‑word
‘doing word’

(20) adverb

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\(^\text{13}\) See 61e (Appendix C).

\(^\text{14}\) For the dimension of vowel height we can either use adjectival verbs, as with most of the 
names of the tones (e.g. mu ve bù‑khɔ̀ ‘high vowel’), or spatial nouns (e.g. ꧦ‑kā‑lé ve bù‑khɔ̀ 
‘mid vowel’). Both genitive and relative constructions are marked by ve. Note that the spatial 
nouns (ꜧ‑)q́‑ji and (ꜧ‑)kā‑lé both mean ‘middle’, but are here artificially repartitioned so that one 
refers to the front/back dimension and the other to the high/low one, just as the English terms 
mid and central are arbitrarily assigned to a particular vocalic dimension.
te-tɔ̂ ga pā
verb help NOM
‘verb helper’

(21) ALLOPHONE
ɔ̀‑šə́ pa khɔ̂
color change sound
‘color-changed sound’

(22) ASSIMILATED SOUND
gò-nè-khɔ̂
pull/drag-be.near-sound
‘drag-near sound’

(23) COGNATE
tɔ̂‑khɔ̂ ɔ̀‑ví‑ɔ̀‑ni
word siblings
‘sibling words’

(24) DISSIMILATE
bì?-vì
push-be.far
‘push-far’

(25) SENTENCE (SPOKEN)
tɔ‑cɔʔ
word-CLF.long.objects
‘word-strip’

(26) SENTENCE (WRITTEN)
lìʔ‑cɔʔ
something.written-CLF.long.objects
‘written strip’

(27) VOICELESS SOUND
gò‑khɔ̂
be.cold-sound
‘cold sound’
5. NEOLOGISTIC STRATEGIES.

5.1. TAKING ADVANTAGE OF PREEXISTING STRUCTURES: NEOLOGISTIC ELABORATE EXPRESSIONS.

The eighth sense of *khɔ̀* (above) is actually a good example of a successful neologism introduced by a missionary.\(^{15}\) The general word for ‘tone’ is now the widely accepted four-syllable expression *khɔ̀‑mu‑khɔ̀‑nɛ̀* (lit. ‘high-sounds-low-sounds’), which follows the ABAC pattern typical of hundreds of other Lahu ELABORATE EXPRESSIONS, containing both a repeated syllable and an ELABORATE COUPLET, that is, a pair of semantically correlative morphemes, usually antonymous (as here) or synonymous.\(^{16}\)

The verbs Ɂ̄ ‘make far; distinguish’ and ɏ ‘share; divide’ form an elaborate couplet, in expressions like Ɂ̄‑dàʔ‑ɏ‑dàʔ ‘discriminate; select the good from the bad’. Maung Maung pressed them into service in order to convey the concept ‘phoneme’, with three alternate possibilities:

(29) PHONEME

a. Ɂ‑khɔ̀‑ɏ‑khɔ̀
   distinguish-sound-divide-sound
   ‘distinguishing sounds’

b. Ɂ‑tɔ̀‑ɏ‑tɔ̀
   distinguish-word-divide-word
   ‘distinguishing words’

\(^{15}\) Probably Paul Lewis, to whom also belongs the credit for coining Lahu equivalents of such musical terms as ‘note’, ‘rest’, ‘soprano’, which have enabled the Christian Lahu to sing hymns in four-part harmony.

\(^{16}\) Other elaborate expressions are of the form ABCB, where it is the 2\(^{nd}\) and 4\(^{th}\) syllables that are identical. For a list of nearly a thousand of these elaborate couplets, see Appendix III of Matisoff 2006:403–448.
The nominal morphemes ú ‘head; beginning’ and mē ‘tail; end’ participate in a large number of elaborate expressions, for example, he-ú-he-mē ‘upper and lower parts of a swidden’; qhɔ-ú-qhɔ-mē ‘top and bottom of a hill’; ǧâ?-ú-ǧâ?-mē ‘a whole chicken’. These are convenient to express the morphological notions of ‘prefix’ and ‘suffix’: tɔ̂-tɔn-ú (‘head-syllable’) and tɔ̂-tɔn-mē (‘tail-syllable’). Similarly, these morphemes may be combined with khɔ to form khɔ-ú ‘initial (position/sound in a syllable)’ and khɔ-mē ‘final (position/sound in a syllable)’.

Maung Maung also suggests tɔ̂-cɔ̂ʔ-ú (‘beginning sentence’) for ‘relative clause’, since RC’s usually precede their head in Lahu.

The bound nominal morpheme vâ occurs in many elaborate expressions as the couplet-partner of chɔ ‘person’, for example, chɔ-he-vâ-he ‘stalwart people’; chɔ-ha-vâ-ha ‘human souls’; chɔ-lî-vâ-lî ‘human rules of conduct’. This last expression has been recruited to form the neologism for ‘anthropologist’: chɔ-lî-vâ-lî hên pā (‘one who studies human rules of conduct’).

The antonymic pair of adjectival verbs kɛ̀ ‘clean; pure’ and tì ‘muddy; turbid’ (as in í-kâʔ-kɛ̀ ‘pure water’, í-kâʔ-tì ‘muddy water’), may be combined with bù-khɔ ‘vowel’ to mean ‘monophthong’ bù-khɔ-kɛ̀ vs. ‘diphthong’ bù-khɔ-tì. This is reminiscent of the traditional Chinese terminology for a different conceptual opposition: qīng 清 ‘voiceless’ (lit. ‘clear’) vs. zhuó 濁 ‘voiced’ (lit. ‘muddy’).

The preexisting compound tɔ̂-khɔ ‘words; speech’ may be ionized as an elaborate couplet in new expressions like tɔ̂-pɔ̀n-khɔ-pɔ̀n ‘compound’ (pɔ̀n ‘add’), and tɔ̂-vēʔ-khɔ-vēʔ ‘elaborate expression’ (vēʔ ‘flower’).

5.2. Neologistic compounds: lexico-semantic innovations.

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17 We might as well add tɔ̂-tɔn-kā ‘infix’ (kā ‘space between’), since future Lahu linguists might want to work on Mon-Khmer languages!

18 An expression meaning ‘vowels in general; monophthongs and diphthongs’ can be created via the elaborate expression khɔ-kè-khɔ-tì.
AGENTIVE NOMINALIZER. The agentive nominalizer *pā* has until now been restricted to animate agents. In a large number of Maung Maung’s neologisms, this functor has been generalized to impersonal or abstract inanimates, that is, ‘that which V’s’, rather than ‘person who V’s’: ‘object’ *khān-pā* (‘that which undergoes’); *ɔ̀-ti jù? pā* ‘locative nominalizer’ (‘that which points to a place’); *tɔ̂-jù?-mà pā* ‘unrestricted particle’ (‘that which applies to many words’).

DELETEION OF *ve*. The hard-working particle *ve* serves both as a genitivizer and as a relativizer. In both functions there are cases where the particle may be deleted, giving rise to structures which behave like lexical compounds. In our new metalinguistic terminology, such deletions are common:

(30) DELETION OF GENITIVE *ve*

a. mâ-gi jê-khô < mâ-gi *ve* jê-khô
   lip stop ... ‘labial stop’

b. nā-qhô bû-khô < nā-qhô *ve* bû-khô
   nose vowel ... ‘nasalized vowel’

c. nā-qhô khô-ú < nā-qhô *ve* khô-ú
   nose first.sound ... ‘prenasalized initial’

(31) DELETION OF RELATIVE *ve*

a. ᵇ-câ me khô < ᵇ-câ me *ve* khô
   thing name (v.) word ... ‘noun’

b. cî-kî phûʔ khô < cî-kî phûʔ *ve* khô
   meaning overturn word ... ‘antonym’

What is unusual is to have a deletion of both relative and genitive *ve* from the same structure. This is something I had never encountered before, but which occurs frequently in our terminology for specifying both the position and the manner of articulation of a consonant, for
example, šá-mə̂ʔ mə̂‑g jê-khɔ̂ ‘aspirated labial stop. This large compound consists of three elements (32a-c):

(32) **DELETION OF BOTH GENITIVE AND RELATIVE ve**

a. šá-mə̂ʔ
   breath-blow
   *SUBJ + VERB*
   ‘aspirated’

b. mə̂‑g
   mouth-skin
   ‘lip’

c. jê-khɔ̂
   stop(v.)-sound
   *ATTRIBUTIVE VERB + HEAD NOUN*
   ‘a stop’

The underlying structure is:

d. šá-mə̂ʔ ve mə̂‑g ve jê-khɔ̂
   *aspirated REL lip GEN stop(n.)*

Similarly for šá-chi̍ʔ ɔ́‑tôʔ‑lôʔ jê-khɔ̂ ‘unaspirated velar stop’:

(33) a. šá-chi̍ʔ
   breath-be.blocked
   ‘unaspirated’

b. ɔ́‑tôʔ‑lôʔ
   ‘(soft) palate’

The underlying structure is:

c. šá-chi̍ʔ ve ɔ́‑tôʔ‑lôʔ ve jê-khɔ̂
   *unaspirated REL (soft) palate GEN stop(n.)*

**CONJOINED ATTRIBUTIVE NOUNS.** Another unusual construction involves two nouns conjoined by the suspensive particle *le* which jointly modify a following noun:

(34) mə‑gî le ci khɔ̂
   lip and teeth sound
‘labiodental’
The two nouns mə̂‑g ‘lip’ and cì ‘teeth’ are conjoined by the particle le ‘and’, with this whole construction serving to modify khɔ̂ ‘sound’, with deletion of genitive ve.

**SUBJECT + VERB CONSTRUCTION MODIFYING AN ATTRIBUTIVE VERB + NOUN.** Other neologisms consist of a subject + verb construction modifying an attributive verb + noun construction. This S + V / V + N structure seems to be quite innovative:

(35) a. cì- pən- šū- khɔ̂
S- V- V- N
meaning-different-same-sounds
‘homonym’

b. cì- šū- pən- khɔ̂
S- V- V- N
meaning-same-different-words
‘synonym’
The syllable cì- is here treated as a short form of the noun cì-kì ‘meaning’, a preexisting compound which in turn is a nominalization of the verb cì ‘stick to’. The form kì is a locative nominalizer, here used in a more general sense: ‘that which sticks’ is a ‘meaning’. The words šū and pən are verbs meaning ‘to be the same’ and ‘to be different’, respectively. The head of these constructions is the noun khɔ̂, here to be glossed either as ‘word’ or ‘sound’. The modifiers consist of novel combinations of a subject-verb construction (‘meaning is different’, ‘meaning is same’) with an attributive verb (šū or pən). So homonyms are MEANING-DIFFERENT-SAME-SOUNDS, whereas synonyms are MEANING-SAME-DIFFERENT-WORDS. The semantic flexibility of khɔ̂ makes these symmetrically neat coinages possible.19

**EQUIVALENT TERMS.** For many of our new terms, several different Lahu equivalents are offered. Some of them are more EXPLANATORY than LEXICAL. An explanatory equivalent is a straightforward syntactic description of what the English item means; a lexical equivalent is

19 Another example of this flexibility of khɔ̂ is the pair of terms khɔ̂-yi ‘long form (of a compound)’ where khɔ̂ means ‘word’, and khɔ̂-nè-yi ‘long low tone’, where khɔ̂ means ‘tone’.
abbreviated into a single morphological unit, sometimes of complex or unusual structure (see examples above).

Often several candidates for translating a given term will present themselves, some of them of the long-winded (but clear) explanatory type, and others more concise and lexicalized, but rather more difficult to grasp on first hearing. A few examples:

(36) CONSONANT
a. mɔʔ-qɔ mèʔ khɔ̂
   mouth shut sound
   ‘closed mouth sound’
   (This term is unsatisfactory, because it is more suitable to translate ‘stop’, below.)
b. te-khɔ̂
establish-sound
   ‘laid down/established sound’
c. tàn-khɔ̂
begin-sound
   ‘beginning sound’

(37) CONTINUANT
a. ɔ́-šá mâ chêʔ le tɔʔ la ve ɔ́-khɔ̂
breath not break and emerge cis rel sound
   ‘sound emerging without cutting off the breath’
b. ɔ́-khɔ̂ g̈ɔ̀ qay pí ve khɔ̂
voice pull go.on be.able rel sound
   ‘sound that the voice can continue pulling’
c. ɔ́-šá lə́ ve ce ɔ́-khɔ̂ bù qay phɛʔ ve ɔ́-khɔ̂
breath remain rel ext sound resound go.on be.able rel sound
   ‘sound that can last as long as the breath holds out’
d. bù qay pí ve ɔ́-khɔ̂
resound go.on be.able rel sound
   ‘sound that can continue resounding’
e. cá-ɡɔ́-khɔ̂
continue-pull-sound
(38) **NOUN**
   a. mɛ-khɔ̀
      be.named-word
      ‘naming word’
   b. ð-cɔ̀ mɛ-khɔ̀
      thing name-word
      ‘thing naming word’
   c. ð-cɔ̀ ð-me
      thing name
      ‘thing name’
   d. tɔ̀-me
      word-name(n.)
      ‘word name’

(39) **PARTICLE**
   a. tɔ̀ jûʔ pā
      word point.out NOM
      ‘word indicator’
   b. tɔ̀ bêʔ pā
      word scoop.up NOM
      ‘word scooper’

(40) **STOP**
   a. mèʔ-khɔ̀
      shut-sound
      ‘occluded sound’
   b. jè-khɔ̀
      stop-sound
      ‘stopped sound’
   c. (ɔ̀-qhɔn) qha-pɔ̀ ní-tì ve khɔ̀
      organ all press.down REL sound
      ‘sound where the speech organs are all closed’
   d. tɔ̀ yɔ̀ qhɔn mèʔ khɔ̀
word speak organ shut sound
\[\text{‘speech organs closed sound’}\]
e. mɔ̀ʔ-qɔ mèʔ lɛ ɔ̀‑šá chêʔ ve ɔ̀‑khɔ̂
mouth shut and breath cut off REL sound
\[\text{‘a sound where the mouth is closed and the breath is cut off’}\]
f. ɔ̀‑šá lə́ thɔ̂ ɔ̀‑khɔ̂ làʔ‑c
breath remain although sound immediately must die NOM
\[\text{‘a sound which has to die abruptly even if the breath lasts’}\]
g. mɔ̀ʔ‑qɔ tê khɨ tí mèʔ pə̀ ve ɔ̀‑khɔ̂
mouth one moment only shut finish REL sound
\[\text{‘a sound where the mouth is completely closed for a while’}\]

Which, if any, of these alternative terms will catch on remains to be seen. Eventually semantic repartition may occur between closely resemblant items.

6. Key verbs in our neologisms. Particularly important is the recruitment of verbs for metalinguistic duty. Table 1 contains a list of some of the most important ones (given in my Lahu alphabetical order!).

7. Putting the new terminology to work in complete sentences. The test of any terminological system is the ease and naturalness with which it can be used in complex sentences.

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20 There remain a number of cases where it has been difficult to decide among alternatives:

(i) Does Lahu tɔ̂(-khɔ̂) ɔ̀‑ví‑ɔ̀‑ni (lit. ‘sibling words’) work better for ‘word family’ or for ‘cognate’?

(ii) After some hesitation we decided that ‘allophone’ would be better translated by ɔ̀‑šə́ pa khɔ̂ (lit. ‘color changed sound’), while šū dàʔ khɔ̂ (lit. ‘sounds which are the same as each other’) should be reserved for ‘variant sound’.

(iii) The terms coined for ‘noun particle’ (tɔ̂‑me jùʔ pā ‘word-name indicator’) and ‘general nominalizer’ (me‑khɔ̂ jùʔ pā ‘naming-word indicator’) are perhaps confusingly similar.
utterances. The following sentences are a representative sample of the kind of linguistic talk that might now be possible in Lahu:21

(41) Lâhū tô-khô yè-qhâ ḋ-qhô lo tô-jûʔ-pâ lê a-yê ì já.
    Lahu words use-way within LOC particle TOPIC importance great very
    ‘In Lahu grammar the particles are very important.’

(42) ñį-khâ-pê-khô tô khô ti ḋ-qhô lo ḋ-šâ-pa-khô lây khô cò ŋâ ve ýò.
    ‘A single phoneme may have several allophones.’

(43) ḋ-šâ-pa-khô chi tô phâ, tô khô le tô khô cá dâ? ve ḋ-qhâ thâ? ‘ché-kî pa ŋâ ve
    ‘The relationship among the allophones of a phoneme is called “complementary
    distribution”.’

    ‘All Lahu verbs can be negated by mà.’

(45) ‘ó-qô-śî’ qôʔ ve tô-khô ḋ-qhô lo tô-hôʔ šêʔ cò cò ve ýò.
    ‘The word ó-qô-śî contains three morphemes.’

(46) Lâhû-khô mêʔ-khô šêʔ cò cò ve.
    ‘Lahu has three series of stops.’

(47) yô ḋ-śî-pâ Lâhû yâ àʔ šû dâʔ ve.
    ‘His accent is just like a Lahu’s.’

(48) Kâlâ-phu khô chi ḋ-śî-pâ qhà-qhe phê? ve le?
    ‘What’s the pronunciation of this English word?’

(49) a. tô-ye ḋ-qhôn ḋ-qhâ-śî qay le ḋ-khô thâ? qhà-qhe te pê dâʔ phêʔ ve le?
    b. tô-ye ḋ-qhôn ýû le ḋ-khô thâʔ qhà-qhe te pê dâʔ phêʔ ve le?
    ‘How can we classify sounds according to the vocal organs?’

21 Space constraints preclude giving word-by-word glosses (except for the first example). For a
list of all the words and morphemes used in the neologisms, sorted by form-class, see Appendix
D.

22 Lit., ‘the same sound which has changed (pa ŋâ ve) in different places’.

23 This is a four-verb concatenation: ýû téʔ ni ŋâ (vV + Vh + Vv + Vv) ‘take-measure-look-
able.to’.
(50)  dîʔšônëli qhɔ qhà‑qhe tê le tɔ‑khɔ ŋa mò phè? ve le?
    ‘How can we find a word in the dictionary?’
(51)  a‑ló ve lì‑mët te‑qhâ ñs le tɔ‑khɔ ŋa mò ve.
    ‘You can find a word by alphabetizing by the first letter.’
(52)  ò‑khɔ či tê çà lê ò‑pa‑ò‑ki či ò‑qhɔ lo yê phè? ve mâ hê?.
    ‘This kind of sound cannot be used in this environment.’
(53)  Lâhû‑nà? ve tɔ‑khɔ ò‑qhɔ lo q le k lê pən dá? ki cò ve yò.
    ‘In Black Lahu there is a phonemic contrast between q and k.’

Much remains to be done, even with respect to phonetic terminology, but the next step will be to proceed systematically to morphology and syntax. It is my fond hope that the new generation of Lahu linguists will soon feel comfortable discussing fine points of their language’s structure in Lahu itself. If so, perhaps my academic approach to Lahu will have had a positive aspect after all.
APPENDIX A: LAHU PHONOLOGY. (Mānpūlón subdialect of Black Lahu)

Table 2 contains the phonemic inventory of Black Lahu:

<INSERT TABLE 2 ABOUT HERE>

(54)  NOTES ON PHONOLOGY

a. Some diphthongs also occur, mostly in loanwords.
b. \( y \) functions as the voiced homologue of \( ș \).
c. \( ǵ \) [\( 严密 \)] is historically the voiced homologue of \( h \).\(^{24}\)
d. Lahu lacks a phoneme /s/.
e. Vowel nasalization (symbolized by <-n>) in loanwords from Burmese, Tai, Chinese, or English is always optional.

ALLOPHONY IN THE LABIAL AND PALATAL SERIES. The four labial phonemes /p ph b m/ are affricated before /u/, which is itself unrounded to /\( [u]\) in this environment (Figure 2).

<INSERT FIGURE 2 ABOUT HERE>

The five palatal phonemes /c ch j ș y/ become dentals before /\( ɨ\)/, which is itself raised to /\( ɿ\)/ in this environment (Figure 3).

<INSERT FIGURE 3 ABOUT HERE>

Finally, the /n/ phoneme has a palatal allophone before /\( ɨ\)/: /\( ni\) → /\( ňi\)\].

\(^{24}\) /\( ġ\)/ derives from PLB *r*, while /\( h\)/ comes from a number of glottalized or aspirated sonorants: *\( /ʔr ʔl ʔy hr hl hy/\).
APPENDIX B: ALTERNATIVE TRANSCRIPTIONS FOR LAHU.25

At least four writing systems have been devised for Lahu, two of them by Christian missionaries, one by Chinese linguists, and one by the present author (see Tables 3-5).

<INSERT TABLE 3 ABOUT HERE>

(55)  NOTES ON TABLE 3

a.  The missionary transcriptions use 10 phonemically unnecessary consonantal symbols: <pf, hpf, bv mv, ny, tc, ts, tz, s, z>. On the other hand, my transcription of the consonants requires three special symbols: <ŋ, š, ġ>.26

b.  While an accurate phonemic transcription is indispensable for historical/comparative work, it could be claimed that a practical orthography should not require the user to make complex deductions, such as interpreting <šɨ> as [sɿ], or <yɨ> as [zɿ].

c.  The Catholic transcription <gn> of the palatal allophone [n̩] of /n/ before /i/ reflects Franco-Italian influence.

<INSERT TABLE 4 ABOUT HERE>

(56)  NOTES ON TABLE 4

a.  The vowels /ɨ/ and /ə/ are correctly distinguished in the missionary orthographies, but are confounded in the Chinese spelling, which writes them both as <eu>.

b.  Both missionary transcriptions confuse the allophone of /u/ after labials (phonetically [uɪ]), with the somewhat similar allophone of /i/ after palatals (phonetically [ɣ]), writing them both as <ö> (Catholic) or <uh> (Baptist).

c.  In the Catholic spelling, the mid vowels /ɛ/, /ɔ/ are written with grave accents <è>, <ò>, while the central vowels /ɨ/, /ə/ are written with diaereses <ü>, <ë>. The use of diacritics to indicate vowel qualities is also characteristic of standard Vietnamese orthography, invented by the French Catholic Alexandre de Rhodes in the 17th century. As in Vietnamese, this means that some vowels must carry two diacritics, one for the quality and one for the tone.

<INSERT TABLE 5 ABOUT HERE>

(57)  NOTES ON TABLE 5

——

25 For a fuller discussion, see Matisoff 1988:20–27.

26 I would now have no objection to replacing them by <ng>, <sh>, and <gh>, respectively.
a. In both missionary orthographies, the tonemarks are placed one space after the vowel, which makes it impossible to run syllables of the same word together, and unesthetic to join syllables within a word with hyphens, so that there is no way to tell where one word ends and the next one begins.

b. In my orthography the tonemarks appear above the vowel. In the case of the two checked tones, part of the tonemark is a postvocalic glottal stop, but this offers no impediment to hyphenization. I regard the checked tones as forming a distinct subsystem from the open ones (they derive from protosyllables with final stops), so that no synchronic or diachronic connection is implied between the high falling and high checked tones, or between the low falling and low checked tones.

c. The missionary systems use both superscript and subscript tonemarks, which makes them hard to type and easy to confuse with each other.

d. The tonemarks in the Catholic system are particularly cumbersome, since several of them are not standard diacritics at all, but rather curved lines or hooks meant to suggest mnemonically the actual contours of the tones.

e. The Chinese system of marking tones by arbitrary postvocalic consonants has much to recommend it. Such transcriptions were popular in the U.S. in the 1940’s and 1950’s for languages like Thai and Burmese, and similar romanizations are now in use for Hmong and Mien. It makes it possible to write polysyllabic words with no spaces between the syllables, usually without ambiguity as to the syllable boundary. It is eminently printable, typeable, and word-processible. In its earlier version it was seriously flawed by writing the low falling and very low tones with the same letter <-l>. This has now been rectified by using <-f> for the latter, as urged in Matisoff 1984.

Table 6 presents a sample sentence in all four orthographies.

<INSERT TABLE 6 ABOUT HERE>
APPENDIX C: SOME SUGGESTED LINGUISTIC TERMINOLOGY FOR LAHU, ARRANGED BY CATEGORY.
(MM = Maung Maung, JAM = Matisoff)

(58) GENERAL

abbreviation tɔ̂‑ŋɛ
alphabet kâʔ‑khâʔ‑ŋâʔ; liʔ‑ma‑pɔ̃
alphabetical order tê tɔ pɔ tê tɔ qa‑qhe te qay le;
liʔ‑ma‑pɔ te‑qâ; tɔ̂‑mɛ̂ʔ ve tɛ‑qâ
anthropologist chɔ‑lî‑vâ‑lî hên‑pâ
boundary/border ɔ̀‑tɔ̄
classification pɛ̀ dàʔ ve ɔ̀‑qâ
continue/keep on g̈ɔ̀ ve; cá ve
cut off/not continue (sound) chêʔ ve
dictionary cî‑ki yù tɔ̂ʔ ve lîʔ; tɔ‑khɔ̂ cî‑ki lîʔ; dîʔsõnëli
environment  ámb‑a‑ki; ámb‑jâ‑phô
exception tɔ‑khô ámb lî yaʔ ve
gloss (short definition) cî‑ki‑ŋe
hyphen tɔ‑tɔ̄ ámb má [MM]; tɔ‑tɔ̄ ámb hêʔ [JAM]
double hyphen tɔ‑tɔ̄ nî mà
triple hyphen tɔ‑tɔ̄ šêʔ mà
interpret/elicit/translate cî‑ki yù tɔ̂ʔ ve
irregular ʂa mɔ̀ hâ ve ámb lî; mɔ̀ mî mà hêʔ ve ámb lî
language tɔ‑khô
last (in a series) ámb‑le‑mô
letter (of an alphabet) liʔ‑mê
linguist tɔ‑khô cú‑yî hên‑pâ (‘one who studies linguistics’);
tɔ‑khô cú‑yî cî‑pa (‘one who knows linguistics’)27
linguistics tɔ‑khô cú‑yî

27 Perhaps one might make a whimsical repartition here, reserving the second term for those who already have their Ph.D.!
list cālǎn
middle ȣ-kā; ȣ-qō-ji
optional lāʔ-ka-lāʔ-bā; lāʔ-ɡā-bā-ɡā
order (of things in series) te-qhā; là ve ȣ-qhā
press/force/occlude nī ve
pronunciation/accent tōʔ-khō; ȣ-ši-pā
regular te-mī-te-cī
regular rule ɡā mò mī ve ȣ-lī
represent ȣ-tan te ve
sound khō; ȣ-khō
speak yō ve
take out/delete yū tōʔ ve; yū bà ve
text būʔ tā ve liʔ; liʔ-ton
utterance yō tōʔ la ve tō
writing system liʔ-mēʔ

(59) PHONETICS

a. VOCAL ORGANS
alveolar ridge cì-tē
breath šā; ȣ-šā
larynx/glottis qā-qə-lə
lip mā-gi
   upper lip mā-gi ȣ-na-pā ve
   lower lip mā-gi ȣ-hō-pā ve
lungs ȣ-chī-phōʔ
mouth mōʔ-qō
nose nā-qhō
organ; tool ȣ-qhən
outstretched/protruded che pə tā ve
palate mōʔ-qō ȣ-tōʔ-lōʔ; mōʔ-qō ȣ-tō-nōʔ; mōʔ-qō mū-phe
hard palate  ɔ̀‑tôʔ‑lôʔ he ve
soft palate/velum  ɔ̀‑tôʔ‑lôʔ nû ve
rounded  mô cû ve
spread  ɲá ve
tongue  ha‑tê
tip of the tongue  ha‑tê‑mô
tooth/teeth  cî
vocal organs  tô yo pé tù ɔ‑qhan; tô yo ɔ‑qhan

b. POSITIONS OF ARTICULATION

alveolar sound  cî‑tê‑khô
apico-dentals  ha‑tê‑mô (ce) mèʔ/yê khô
bilabials  mâ‑dôʔ‑khô; mâ‑gi‑khô
glottal stop  qá‑qô‑lô (ce) mèʔ khô; qá‑qô‑lô sá jê khô
labials  mâ‑gi (ce) mèʔ/yê khô
labial stop  mâ‑gi jê‑khô
labiodentals  mâ‑ci‑khô; mâ‑gi le cî mèʔ (dàʔ) ve khô
lamino-palatals  ha‑tê ɔ‑qô‑ji (ce) mèʔ/yê khô; ha‑tê ɔ‑qô‑ji khô;
                ɔ‑tôʔ‑lôʔ khô
laryngeal/haitch [h]  šá g̈ô khô (tèʔ‑chî mâ mèʔ)
laterals  ha‑tê ɔ‑já khô; ha‑tê ɔ‑já‑phô tô? khô;
           Chô‑phô‑ô‑phô tô? la ve khô
pharyngeal  qhô‑khô; qhô‑qhô‑khô
pharyngealized  qô‑khô ɔ‑çî‑kà khô
point of occlusion/articulation  nî‑tî ki; mèʔ dâ? kî
post-velars/uvulars  ha‑tê çî‑nôʔ kî (ce) mèʔ khô; qô‑khô;
                    ha‑tê ɔ‑çî‑pê ɔ‑qhô‑nô khô
touch (as articulator)  dôʔ (dàʔ) ve
uvular  ha‑cu‑ni khô
velars  ha‑tê ɔ‑çî‑pê (ce) mèʔ/yê khô;
        ha‑tê ɔ‑khî‑pê (ce) mèʔ khô;
        ɔ‑tôʔ‑lôʔ nû ve khô; ɔ‑tôʔ‑lôʔ nû ve khô
c. MANNERS OF ARTICULATION

affricate  khán-tɔʔ?-chíʔ- khõ
approximant  ha-tẽ ò-jã khõ
aspirate (v.)  mõʔ ve
aspirated stop  ò-šá mõʔ ve ní-tì ve khõ
    aspirated sound  ò-šá mõʔ ve khõ; šá-mõʔ- khõ
    aspirated labial stop  šá-mõʔ  mõ-gì jẽ khõ
consonant  mõʔ-qo mẽʔ khõ; te-khõ; tàn-khõ
continuant  ò-šá mã chev? le tô? la ve ò-khõ;
    ò-khõ gò qay pì ve khõ;
    ò-šá lõ ve ce ò-khõ bù qay phê? ve ò-khõ;
    bù qay pì ve ò-khõ; cá-gì- khõ
fricative  khán-tõʔ- khõ [MM]; šõʔ-bù ve khõ [JAM]
    voiced fricative  qá-qə-lə dîʔ le šõʔ- bù ve khõ
    voiceless fricative  qá-qə-lə mã dîʔ le šõʔ- bù ve khõ
manner series (of obstruents)  cõ ‘kind’ (Clf.)
nasal sound  nã-ghõ ce tôʔ ve khõ
noncontinuant  tê pôʔ ti jẽ ve ò-khõ; jê-chêʔ-khõ
coclude  ní-tì ve; mêʔ dàʔ ve
plosive  pôʔ-khõ
prenasalized consonant  nã-ghõ khõ-ú
stop/obstruent  mêʔ-khõ; jê-khõ;
    (ò-qhen) qha-pò ní-tì ve khõ;
    tô yɔ qhæn mêʔ khõ;
    mêʔ-qo mêʔ le ò-šá chev? ve ò-khõ;
    ò-šá lõ thõ ò-khõ làʔ-çí-làʔ-hă gã sì ve;
    mêʔ-qo tõ khi tì mêʔ pò ve ò-khõ
    plain stop (v’less unasp.)  à-qhe-lè ve ní-tì ve khõ
unaspirated  šá-chíʔ-khõ
unaspirated stop  ò-šá mõ mõʔ ve ní-tì ve khõ
unaspirated labial stop  šá-chíʔ  mõ-gì jẽ-khõ
voiced, be/vibrate  
voiced sound  
voiced fricative  
voiced stop  
voiceless, be  
voiceless sound  
voiceless fricative  
voiceless stop  
voiceless unaspirated stop  
voiceless aspirated sound

d. VOWELS

vowel  
simple vowel/pure vowel  
diphthong/complex vowel  
fused vowels  
nasalized vowel  
long (as a vowel)  
short (as a vowel)  
high (as a vowel)  
low (as a vowel)  
open (i.e. low, as a vowel)  
front vowel  
central vowel  
back vowel  
rounded vowel  
unrounded vowel  
high vowel  
high front vowel
high central vowel  (ha-tè) ṭ-qǝ̤-ji mu ve ṃ-bu-khʊ́
high back vowel  (ha-tè) ṭ-čí-pī mu ve ṃ-bu-khʊ́
high back rounded vowel  (ha-tè) ṭ-čí-pī mu ve mɔ́ cu khʊ́
high back unrounded vowel  (ha-tè) ṭ-čí-pī mu ve phi-khʊ́
high central unrounded vowel  (ha-tè) ṭ-kɑ́ mu ve phi-khʊ́
high front unrounded vowel  (ha-tè) ṭ-mɔ́ mu ve phi-khʊ́

mid (half open, as vowel)  tɛ̀ khʊ́ phɔ̀-khʊ́; (ha-tè) a-cí mu ve ṃ-bu-khʊ́;
(mid)  ṭ-kɑ́-lɛ́ mu ve ṃ-bu-khʊ́
mid front vowel  (ha-tè) ṭ-mɔ́ ṭ-kɑ́-lɛ́ mu ve ṃ-bu-khʊ́
mid front unrounded vowel  (ha-tè) ṭ-mɔ́ ṭ-qɔ́-ji phi-khʊ́
mid central vowel  (ha-tè) ṭ-qɔ́-ji ṭ-kɑ́-lɛ́ mu ve ṃ-bu-khʊ́
mid back vowel  (ha-tè) ṭ-čí-pi ṭ-kɑ́-lɛ́ mu ve ṃ-bu-khʊ́
mid back rounded vowel  (ha-tè) ṭ-čí-pi ṭ-qɔ́-ji mɔ́-g̈ɔ́ khʊ́

low vowel  (ha-tè) nɛ̀ ve ṃ-bu-khʊ́
low front vowel  (ha-tè) ṭ-mɔ́ nɛ̀ ve ṃ-bu-khʊ́
low front unrounded vowel  (ha-tè) ṣʊ̤-ši nɛ̀ ve mɔ́-phi-khʊ́
low central vowel  (ha-tè) ṭ-qɔ́-ji nɛ̀ ve ṃ-bu-khʊ́
low central unrounded vowel  (ha-tè) ṭ-kɑ̀ nɛ̀ ve phi-khʊ́
low back vowel  (ha-tè) ṭ-čí-pi nɛ̀ ve ṃ-bu-khʊ́
low back rounded vowel  (ha-tè) ṭ-čí-pi ṭ-qɔ́-ji mɔ́-g̈ɔ́ khʊ́

e. TONES

tone order (in dictionary)  ṭ-ḥʊ́ te-qhɑ̀
tones  ṭ-ḥʊ́-mu-ḥʊ́-nɛ̀
tone marks  ṭ-ḥʊ́-mu-ḥʊ́-nɛ̀ ve ń-hɛ̀?/ń-máy
mid-tone (33)  ṭ-ḥʊ́ ṭ-qɔ́-ji
high-rising tone (35)  ṭ-ḥʊ́-mu-yì́̀ (‘long high tone’)
high-falling tone (53)  ṭ-ḥʊ́-mu  (‘high tone’)
low-falling tone (21)  ṭ-ḥʊ́-nɛ̀  (‘low tone’)

very low tone (11[2])  khɔ̀-nè-yì  (‘long low tone’)  
high stopped tone (54s)  khɔ̀-mu-ɲɛ  (‘short high tone’)  
low stopped tone (21s)  khɔ̀-nè-ɲɛ  (‘short low tone’)  

(60)  PHONOLOGY AND MORPHOPHONEMICS

allophone  ɔ̀-šə́-pa khɔ̀
assimilate  ɡò-ɲɛ (la) ve
assimilated sounds  ɡò-ɲɛ-khɔ̀; ɡò-ɲù nè dá? khɔ̀
complementary distribution  ɔ̀-pə-ɲɛ pa khɔ̀; ɔ̀-ʃə̀ pa khɔ̀

(sounds in)
contrast  pən dáʔ kì
dissimilate/dissimilation  bি-vì ve
dissimilated sounds  bি-vì-khɔ̀
minimal pair  i ve khɔ̀-ce
phoneme  fì-ɲ-hɔ̀-pə-khɔ̀; fì-tɔ̀-pɛ̀-tɔ̀; fì-dáʔ-ɲɛ-ɲɛ dáʔ khɔ̀
variant sound  šù-daʔ-ɲhɔ̀

(61)  MORPHOLOGY AND FORM CLASSES

adjective  phò?-tɔ̀
adjectival verb  phò?-tɔ̀-te-tɔ̀
adverb  te-tɔ̀ ga pã
affix  tɔ̀-tɔn-cã
classifier  ɔ̀-cã pɛ̀ tɔ̀
compound  tɔ̀-pɔ̀n-khɔ̀-pɔ̀
elaborate couplet  tɔ̀-vɛ̀? ɔ̀-ce
elaborate expression  tɔ̀-vɛ̀?; tɔ̀-vɛ̀?-khɔ̀-vɛ̀?
final (position in syllable)  khɔ̀-mɛ̀
form class/part of speech  tɔ̀-cã
infix  tɔ̀-tɔn-kã
initial consonant  khɔ̀-ú; khɔ̀ ɔ̀-tãn kì
long form (of a compound)  khɔ̀-yì
morpheme
tɔ̂-hɔʔ

noun
tɔ̂-me jûʔ pā; tɔ̂-cə me-khɔ̂; tɔ̂-cə ɔ̀-mɛ

noun particle
28

tɔ̂-me jûʔ pā

particle

prefix

tɔ̂-tɔn-ú

short form (of a compound)
khɔ̂-ŋɛ

suffix
tɔ̂-tɔn-mɛ

syllable
tɔ̂-tɔn; tɔ̂-khɔ̂ ɔ̀-tɔn

syllable boundary
tɔ̂-tɔ̄

unrestricted particle
tɔ̂-jûʔ mā pā

final unrestricted particle
tɔ̂-mɛ̄ jûʔ mā pā; tɔ̂-le jûʔ mā pā

nonfinal unrestricted particle
tɔ̂-kā jûʔ mā pā

verb
tɔ̂-tɔ̂; te-tɔ̂-phɛ̀ʔ-tɔ̂; te-khɔ̂; te-khɔ̂-phɛ̀ʔ-khɔ̂

verb particle
tɔ̂-khɔ̂ jûʔ pā

(62) SYNTAX/GRAMMAR

grammar
tɔ̂-khɔ̂ yɛ̂-qhâ

intransitive
khān-pā mā yù (p̣) ve te-tɔ̂

locative
ɔ̀-ti jûʔ ve

locative noun
ɔ̀-ti jûʔ ve me-khɔ̂

negative
mā-hēʔ-tɔ̂

nominalizer
me-khɔ̂ phɛ̀ʔ ci pā; tɔ̂-me-pā

agentive nominalizer
te-šɛ̄-phâ jûʔ pā

general nominalizer
à-la-qhe ve tɔ̂-me-pā; me-khɔ̂ jûʔ pā; tɔ̂-cə jûʔ pā

locative nominalizer
ɔ̀-ti jûʔ pā

purposive nominalizer
dɔ̂-ti jûʔ pā

temporal nominalizer
ɔ̀-yân jûʔ pā

object
khān-pā

particle

tɔ̂ jûʔ pā; tɔ̂ bèʔ pā

---

28 See also ‘general nominalizer’.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>phrase</td>
<td>lिः-cश्व त-ण</td>
</tr>
<tr>
<td>possessive/genitive</td>
<td>ve pā</td>
</tr>
<tr>
<td>relative clause</td>
<td>tो-स्व?-ु</td>
</tr>
<tr>
<td>right relative clause</td>
<td>ला? शा tो-स्व?</td>
</tr>
<tr>
<td>sentence</td>
<td>झ-स्व?</td>
</tr>
<tr>
<td>spoken sentence</td>
<td>tो-स्व?</td>
</tr>
<tr>
<td>written sentence</td>
<td>लिः-स्व?</td>
</tr>
<tr>
<td>transitive verb</td>
<td>khान-पा यु ve te-तो</td>
</tr>
<tr>
<td>word</td>
<td>tो-खो</td>
</tr>
<tr>
<td>word order</td>
<td>tो-खो te-खाः झ-खो te-खाः</td>
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</tbody>
</table>

(63) **SEMANTICS**

<table>
<thead>
<tr>
<th>Term</th>
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<tbody>
<tr>
<td>antonym</td>
<td>cि-की पा khो; cि-की phु? khो</td>
</tr>
<tr>
<td>definition</td>
<td>cि-की phो? mा ve</td>
</tr>
<tr>
<td>denote</td>
<td>झ-तन te झाः</td>
</tr>
<tr>
<td>episode (of a narrative)</td>
<td>झ-लो झ-तोн</td>
</tr>
<tr>
<td>homonym</td>
<td>cि-पन-शु-khो</td>
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<tr>
<td>idiom</td>
<td>तो-पा-े khो</td>
</tr>
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<td>key word/key term</td>
<td>तो-वा-पा</td>
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<tr>
<td>meaning</td>
<td>cि-की</td>
</tr>
<tr>
<td>opposite (in meaning)</td>
<td>cि-की phु? तो? ve /see ‘antonym’/</td>
</tr>
<tr>
<td>purpose, have a</td>
<td>झ-ती ve</td>
</tr>
<tr>
<td>semantics</td>
<td>cि-की cु-यी</td>
</tr>
<tr>
<td>synonym</td>
<td>cि-शु-पन-khो</td>
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</table>

(64) **HISTORICAL LINGUISTICS**

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<tr>
<td>allofam</td>
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<td>cognate</td>
<td>तो-खो झ-वी-झ-नी</td>
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<td>historical linguistics</td>
<td>तो-cि-पी cु-यी</td>
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<td>protolanguage</td>
<td>तो-पी-तो-मो</td>
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<td>reconstruct/reconstruction</td>
<td>तो-cि-पी झौ? gu-को ve</td>
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<tr>
<td>sound correspondence</td>
<td>ɔ̀‑khɔ̂ ɔ̀‑lî thàʔ gàʔ pa ve</td>
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<tr>
<td>----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>word family</td>
<td>tɔ̂‑khô‑yâ tê phã</td>
</tr>
</tbody>
</table>
APPENDIX D: WORDS AND MORPHEMES IN THE NEOLOGISMS, SORTED BY FORM-CLASS.

(65) NOUNS

a-yê importance (< Burmese)
a-ló first
(ɔ̀)-ú head
ó-qō(-šī) head
qá-qə-lə larynx
(ɔ̀)-qɔ́-ji middle
qɔ̄ neck
(ɔ̀)-qhâ way; path
(ɔ̀)-qhâ-ši tracks; trail
(ɔ̀)-qhɔ inside
qhɔ̀ʔ-qhɔ throat
(ɔ̀)-qhɔ̀ʔ-nɔ́ behind; after
(ɔ̀)-qhən tool; organ
kâʔ-khâʔ-ŋâʔ alphabet
Kâlâ-phu white person; Caucasian
(ɔ̀)-kā(-lɛ́) between; middle
(ɔ̀)-khɔ sound; noise; voice; words; language; phrase; sentence; advice; reason
(ɔ̀)-khî-pî base; source
câlân list
cì tooth, teeth
cì-tê gums; alveolar ridge
cû-yî knowledge; skill
(ɔ̀)-ce pair; couple
(ɔ̀)-cɔʔ strip; length of sthg
cî-kî meaning
(ɔ̀)-cî-kâ boundary; border
(ɔ̀)-cî-pî foundation; base
(ɔ̀)-cə̀ thing; kind; sort
chi  this; these
chɔ  person
(ɔ̀-)chî-phôʔ  lungs
(ɔ̀-)jâ(-phô)  edge; border
ã-tan  substitute; symbol
ã-tàn  beginning
(ɔ̀-)tí  place
ã-tôʔ-lôʔ  palate
(ɔ̀-)tôn  section (of long object)
tô(-khô)  word
(ɔ̀-)tô-nôʔ  step; ledge; ridge
(ɔ̀-)na-pá  upper; above
nâ-qhô  nose
(ɔ̀-)pâ-nê  near; vicinity; environs
(ɔ̀-)pô  sthg old
(ɔ̀-)ma-pô  mother of; most important part
mû-phe  upper part; place above
ñ-me  a name
(ɔ̀-)mê  tail
mê?(-shi)  eye
mô?-qô  mouth
(ɔ̀-)mô  tip
mô(-gi)  lip
(ɔ̀-)mây  mark; symbol (< Tai)
ha-cu-ni  uvula (lit. ‘tongue-clitoris’)
ha-tê  tongue
ñ-hêʔ  sign; augury; symbol
(ɔ̀-)hôʔ  form; shape; image (ult. < Pali/Sanskrit)
ñ-hô-pá  underneath; part below
(ɔ̀-)gû-šî  front; part before; time before
(ɔ̀-)sá  air; breath; spirit; effluvium
šálâʔ vowel (< Thai)
(ɔ̀-)šɛ̄‑phâ owner; doer of an action
(ɔ̀‑)šə́(‑pa) color
(ɔ̀‑)yân time
(ɔ̀‑)vêʔ flower; decorative object
(ɔ̀‑)lî custom; rule
làʔ‑ša right hand
lîʔ sthg written
(ɔ̀‑)lə(‑mə̂) last one; end
(ɔ̀‑)lôn story; matter; thing

VERBS

qôʔ say
qay go
kô pile up
kə put in; insert
khôʔ mix
ga help
gu prepare; fix
jà open wide
cú pucker
cô have; be there
cî‑nôʔ be connected; tightly attached to
che protrude; stick out
chéʔ break; sever
tân begin; start
tî fix in place; restrain
te do; make

29 Those listed in Table 1 are not repeated here.
têʔ ni  test; measure and see
dɔ̂  think; plan
nî  press; squeeze
pa  change
pā  turn around; switch position
pə  send
pə̀  finish
phɛ̀ʔ  be; become
phɔ  open
phə̀ʔ  reveal; unwrap
bà  throw away
bùʔ  write
b̃̃ʔ  push; jostle
mā  teach
mɛ  name (v.)
mɔ̀  see
mì  do; work
hên  study (< Tai)
hêʔ  be the case
ğa  get; obtain
g̈àʔ  chase; drive
šɔ̄  consider; arrange; select
šɿ  die
yàʔ  violate; do wrong
yù  take
yɛ  use
yɔ  speak
là  come
lə  come last; be the last; be late

---

30 This verb occurs in the construction tê + CLF + pə̀ + tê + CLF ‘one Clf after another’.
lọ́     be extra; left over (< Tai)
lọ́ʔ     choose (< Tai)

(67) ADJECTIVAL VERBS

i     little
ɨ́     big
kè     pure
gò     cold
ŋɛ́     short
tì     turbid
nâʔ     black
nú     soft
nè     near; close to
nè́     low
pì     old (of objects)
phĩ́     flat
má́     many; numerous
mu     high
mɔ́     old (of people)
hɛ́     hard
ɡ̈ɔ́     round
yì     long
wì     far

(68) VERSATILE VERBS

a. PRE-HEAD
qɔ̀ʔ     V again; V back
tàn     begin to V
ɡ̈a     must V; get to V
yù     take and V; cause to V

b. POST-HEAD
qay keep on V’ing
cì cause to V
cí V so it sticks; continue to V
dché V once and for all
tvê V out
pí able to V (intrinsic ability)
pɔ send V’ing
phè able to V (favorable circumstances)
bà V away; get rid of by V’ing
mā teach to V
mì V habitually; have used to V
hā difficult to V
gā able to V (by dint of effort)
gā? chase and V; chase in order to V

(69) ELABORATE EXPRESSIONS

a. NOMINAL
  ḗ-khḑ-ḍ-lī correspondence
  ḗ-pâ-ḍ-ki environment
  ḗ-vî-ṣ-ni siblings
  khḑ-mu-khḑ-nè tones
  chô-phâ-ô-phô here and there; everywhere
  chô-li-vâ-li people’s customs
  te-khḑ-phêʔ-khḑ verb
  te-tô-phêʔ-tô verb
  tô-pî-tô-mô protolanguage
  tô-pôn-khḑ-pôn compound
  tô-vêʔ-khḑ-vêʔ elaborate expression
  phêʔ-tô-te-tô adjectival verb
  fi-khḑ-pê-khḑ phoneme
  fi-tô-pê-tô phoneme
b. **VERBAL**

- te-mì-te-cí regular
- fi-dàʔ?-pè-dàʔ distinguish
- lâʔ?-kà-lâʔ?-bà optional
- lâʔ?-gà-bà-gà optional

**ADVERBIAL**

- làʔ?-cí-làʔ?-há immediately

(70) **ADVERBS**

- a-cí a little bit
- à-qhe-lè for nothing; for free
- qha-pò completely
- qhà-qhe how
- cú è puckered; pointed
- tèʔ?-chí nothing
- phi è flat
- mà not

(71) **NUMERALS**

- tè one
- nî two
- šêʔ? three
- láy several (< Tai)

(72) **CLASSIFIERS**

- khô for halves
- khi for moments
- cɔʔ? for strips
- cɔ for things, kinds
- tɔ for sections
- phà for totalities
mà (general)

(73) PARTICLES

a. NOUN PARTICLES
   thàʔ    accusative
   lo      locative

b. VERB PARTICLES
   á       perfective
   kì      locative nominalizer
   tā      perfective
   tù      irrealis
   dàʔ     reciprocal; mutual
   pā      agentive nominalizer

c. UNRESTRICTED PARTICLES
   cɛ      only; to the extent that
   tí      only
   tɛʔ     quotative
   thɔ̂    even; also; although
   yò      affirmative; declarative
   le      substance interrogative (WH- question marker)
   le      conjunctive; suspensive
REFERENCES


FIGURE 1. Lahu phonemes as listed in *The Dictionary of Lahu*. 

<table>
<thead>
<tr>
<th>VERB</th>
<th>GLOSS</th>
<th>EXAMPLE NEOLOGISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>kì 'melt'</td>
<td></td>
<td>bù-khɔ̀ nì mà kì dáʔ á ve ‘fused vowels’</td>
</tr>
<tr>
<td>khán 'be clogged; blocked up'</td>
<td></td>
<td>khán-tɔ̀ʔ-khɔ̀ ‘fricative’</td>
</tr>
<tr>
<td>khān 'undergo; receive'</td>
<td></td>
<td>khān-pā ‘object’</td>
</tr>
<tr>
<td>gu 'prepare; fix’</td>
<td></td>
<td>gu-kɔ̀ ‘reconstruct’ (kɔ̀ ‘pile up’)</td>
</tr>
<tr>
<td>cá ‘join; connect; continue’</td>
<td></td>
<td>cá-ɡ̈ɔ̀‑khɔ̀ ‘continuant’</td>
</tr>
<tr>
<td>cí 'be joined to; depend on’</td>
<td></td>
<td>cí-kì ‘meaning’</td>
</tr>
<tr>
<td>cú ‘close tightly; pucker up’</td>
<td></td>
<td>bù-khɔ̀ mɔ̀ʔ‑qɔ́ cú ɛ̀ ve ‘rounded vowel’</td>
</tr>
<tr>
<td>chēʔ 'break; sever; snap in two’</td>
<td></td>
<td>ɔ̀‑šá chēʔ ve ɔ̀‑khɔ̀ ‘obstruent’</td>
</tr>
<tr>
<td>chîʔ ‘crumple up; squeeze’</td>
<td></td>
<td>ɔ̃‑tɔ̂‑khɔ̀ ‘nasal sound’ (lit. ‘nose only emerge sound’)</td>
</tr>
<tr>
<td>jùʔ 'stop; cease’</td>
<td></td>
<td>jù‑khɔ̀ ‘stop’</td>
</tr>
<tr>
<td>te 'put down/set on/establish’</td>
<td></td>
<td>te‑khɔ̀ ‘consonant’</td>
</tr>
<tr>
<td>tɔ̀ ‘emerge’</td>
<td></td>
<td>nā‑ghɔ̀ ce tɔ̀ khɔ̀ ‘nasal sound’ (lit. ‘nose only emerge sound’)</td>
</tr>
<tr>
<td>tɔ̀ ‘dam up; demarcate’</td>
<td></td>
<td>tɔ‑tɔ̀ ‘syllable boundary’</td>
</tr>
<tr>
<td>dìʔ ‘vibrate’</td>
<td></td>
<td>qá‑qə‑lə dìʔ ve ‘larynx vibrates; voicing’</td>
</tr>
<tr>
<td>dɔ̀ʔ ‘be close together’</td>
<td></td>
<td>dɔ̀ʔ dàʔ ve ‘touch (as articulator)’</td>
</tr>
<tr>
<td>ní‑tī ‘immobilize by pressing’</td>
<td></td>
<td>ní‑tī kì ‘point of occlusion’</td>
</tr>
<tr>
<td>pa‑e ‘be changed’ (V + Pv)</td>
<td></td>
<td>tɔ‑pa‑e khɔ̀ ‘idiom’</td>
</tr>
<tr>
<td>pā ‘turn around; switch position’</td>
<td></td>
<td>cí‑kì pā khɔ̀ ‘antonym’</td>
</tr>
<tr>
<td>pè ‘share; divide up’</td>
<td></td>
<td>fī‑khɔ̀‑pè‑khɔ̀ ‘phoneme’</td>
</tr>
<tr>
<td>pɔ̀ ‘pop’</td>
<td></td>
<td>pɔ̀‑khɔ̀ ‘plosive’</td>
</tr>
<tr>
<td>pɔ́n ‘add’</td>
<td></td>
<td>tɔ‑pɔ́n‑khɔ̀‑pɔ́n ‘compound’</td>
</tr>
<tr>
<td>pɔ̃n ‘be different’</td>
<td></td>
<td>cí‑pɔ̃n‑šū‑khɔ̀ ‘homonym’</td>
</tr>
<tr>
<td>phi ‘flat; level; even’</td>
<td></td>
<td>phi‑khɔ̀ ‘unrounded vowel’</td>
</tr>
<tr>
<td>phũʔ ‘turn over; turn upside down’</td>
<td></td>
<td>cí‑kì‑phũ‑khɔ̀ ‘antonym’</td>
</tr>
<tr>
<td>bù ‘make a sound/resound’</td>
<td></td>
<td>bù‑khɔ̀ ‘vowel’</td>
</tr>
<tr>
<td>bêʔ ‘scoop out; scoop up’</td>
<td></td>
<td>tɔ‑bêʔ‑pā ‘particle’</td>
</tr>
<tr>
<td>mèʔ ‘close abruptly’</td>
<td></td>
<td>qá‑qə‑lə mèʔ khɔ̀ ‘glottal stop’</td>
</tr>
<tr>
<td>mɔ̀ʔ ‘blow’</td>
<td></td>
<td>ɔ́‑šá mɔ̀ʔ ve khɔ̀ ‘an aspirate’</td>
</tr>
<tr>
<td>ɡò ‘round’</td>
<td></td>
<td>mɔ‑ɡò bù‑khɔ̀ ‘rounded vowel’</td>
</tr>
<tr>
<td>ɡɔ̀ ‘drag; continue’</td>
<td></td>
<td>cā ɡɔ̀ khɔ̀ ‘continuant’</td>
</tr>
</tbody>
</table>
šū 'be the same'  
šôʔ 'rub/stroke'  
ve 'lay claim to'  

ci-šū-pən-khɔ̀ ‘synonym’  
šôʔ bù ve khɔ̀ ‘fricative’  
ve pā ‘genitive’  

**TABLE 1.** Key verbs in neologisms.

<table>
<thead>
<tr>
<th>CONSONANTS</th>
<th>VOWELS</th>
<th>TONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>p t c k q</td>
<td>i i u</td>
<td>mid [unmarked] 33 o</td>
</tr>
<tr>
<td>ph th ch kh qh</td>
<td>e ə o</td>
<td>high rising 35 ो</td>
</tr>
<tr>
<td>b d j g</td>
<td>e a ɔ</td>
<td>high falling 53 ो</td>
</tr>
<tr>
<td>m n ŋ</td>
<td></td>
<td>low falling 21 ो</td>
</tr>
<tr>
<td>f š h</td>
<td></td>
<td>very low 11(2) ो</td>
</tr>
<tr>
<td>v y ɡ</td>
<td></td>
<td>high checked 4-ʔ ो</td>
</tr>
<tr>
<td>l</td>
<td></td>
<td>low checked 2-ʔ ो</td>
</tr>
</tbody>
</table>

*Syllable canon: (C) V T*

**TABLE 2.** Lahu phonemic inventory.


**Figure 2.** Labial allophony.


**Figure 3.** Palatal allophony.

<table>
<thead>
<tr>
<th>CATHOLIC</th>
<th>BAPTIST</th>
<th>CHINESE</th>
<th>MATISOFF</th>
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</tr>
<tr>
<td>v</td>
<td>v</td>
<td>v</td>
<td>v</td>
</tr>
<tr>
<td>l</td>
<td>l</td>
<td>l</td>
<td>l</td>
</tr>
</tbody>
</table>

**Table 3.** Consonant equivalences in Lahu orthographies.

<table>
<thead>
<tr>
<th>CATHOLIC</th>
<th>BAPTIST</th>
<th>CHINESE</th>
<th>MATISOFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>i</td>
<td>i</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>u / ö</td>
<td>u / uh</td>
<td>u</td>
<td>u</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
<td>e</td>
<td>e</td>
</tr>
<tr>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>è</td>
<td>eh</td>
<td>ie</td>
<td>ε</td>
</tr>
<tr>
<td>ò</td>
<td>aw</td>
<td>aw</td>
<td>œ</td>
</tr>
<tr>
<td>ü / ö</td>
<td>ui / uh</td>
<td>eu</td>
<td>i</td>
</tr>
<tr>
<td>ē</td>
<td>eu</td>
<td>eu</td>
<td>œ</td>
</tr>
</tbody>
</table>
TABLE 4. Vowel equivalences in Lahu orthographies.

<table>
<thead>
<tr>
<th></th>
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<th>BAPTIST</th>
<th>CHINESE</th>
<th>MATISOFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>mid</td>
<td>ca_</td>
<td>ca</td>
<td>ca</td>
<td>ca</td>
</tr>
<tr>
<td>high rising</td>
<td>ca`</td>
<td>ca`</td>
<td>caq</td>
<td>cá</td>
</tr>
<tr>
<td>high falling</td>
<td>caˆ</td>
<td>caˆ</td>
<td>cad</td>
<td>câ</td>
</tr>
<tr>
<td>low falling</td>
<td>ca˘</td>
<td>ca˘</td>
<td>cal</td>
<td>câ</td>
</tr>
<tr>
<td>very low</td>
<td>ca</td>
<td>ca_</td>
<td>cal</td>
<td>cã</td>
</tr>
<tr>
<td>high checked</td>
<td>ca^</td>
<td>ca^</td>
<td>cat</td>
<td>câ?</td>
</tr>
<tr>
<td>low checked</td>
<td>ca</td>
<td>ca</td>
<td>car</td>
<td>câ?</td>
</tr>
</tbody>
</table>

TABLE 5. Tone equivalences in Lahu orthographies.

CATHOLIC
ya ꞈ gni ꞈ ò nga ꞈ hũ ꞈ te ꞈ qha ꞈ qhò ꞈ phò ꞈ sha ca ꞈ gha ꞈ e tu ꞈ le

BAPTIST
ya ꞈ nyi aw ꞈ nga ꞈ hui ꞈ te ꞈ hk’ag ꞈ hk’aw ꞈ hpaw ꞈ sha ꞈ ca ꞈ g’a ꞈ e tu ꞈ le

CHINESE
yar ni awl ngal heu ted qhat qhawl phawd shal ca xar e tu ꞈ le

MATISOFF
yàʔ-ni ꞈ ꞈ ꞈ ꞈ ngå-hî tê qhâʔ qhò-phô šã ca ꞈ gàʔ e tu ꞈ le
today our village where game go and hunt

NP¹ NP² NP³ NP⁴ VP

‘Where shall our village go to hunt today?’

TABLE 6. Sample sentence in four orthographies.