Rethinking the Proto-Tibeto-Burman *a- prefix:
Glottal and Nasal Complications

MATISOFF, James A.

There has always been something rather anomalous about the PTB prefix conventionally reconstructed as *a-. While all the other prefixes set up for the proto-language (*s-, *m-, *b-, *d-, *g-, *r-) are consonantal, *a- looks as if it consisted of a simple vowel. My contention is that the phonetics and morphophonemics of this prefix were considerably more complicated than that:

· The prefix should be reconstructed with a glottal stop preceding the vowel (i.e. *ʔa-), bringing it in line with the other consonantal prefixes.
· Both stressed and unstressed variants should be recognized (i.e. *ʔa- vs. *ʔə-).
· A nasal increment to the prefix seems to have arisen at an early date, via the mechanism of rhinoglottophilia (see Section IV), leading to forms like *ʔan (stressed) and *ʔə (unstressed).
· Some languages, notably Mikir (Karbi), Lotha, and Akha, developed a palatalized as well as a non-palatalized variant of the nasalized prefix (i.e. *ʔan ~ *yan-).
· Certain languages (Tibetan, Proto-Lolo-Burmese) underwent loss (apheresis) of the vowel of the nasalized prefix, yielding prenasalized monosyllabic forms.
· Lahu (and perhaps other languages) have somehow developed a stop-finalled variant in addition to the nasal-finalled one (i.e., *ʔan > *ʔak-). See Section VII.

The prefix occurs in dozens of languages with a wide variety of interrelated semantic functions, most of them apparently having to do with the notion of inalienable possession: kinship terms, body-parts, adjectives, genitives, 3rd person pronouns.

The data for this paper are from a large number of languages from several branches of the vast Tibeto-Burman family, including Written Tibetan, Jingpho, Southern and Central Loloish (Yi), Karenic, Chin, Naga, Rawang, and Asakian.

Keywords: Proto-Tibeto-Burman, prefixes, nasality and glottality, stress and sesquisyllables, Written Tibetan a-chung

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I. Introduction

This paper aims to provide a unified account of the so-called PTB *a- prefix, encompassing both open-syllable and nasal-final variants. In addition, it is my contention that both stressed and unstressed variants of the prefix should be reconstructed. This investigation will hopefully serve to shed more light on the mysterious Written Tibetan letter known as “a-chung”, and to demonstrate that the phonetic features of nasalization and glottalization have a closer interrelationship than has been generally recognized.

II. Morphophonemic overview of the PTB “a- prefix”

Pan-allofamic formula (i.e., a formula that includes all the recognized variants of the etymon):

*ʔa- × *(ʔ)ə- × *ʔə- × *ʔaŋ- × *ʔyaŋ- × *ʔak-
Let’s break down this formula, and elaborate it somewhat. See Fig. 1, where the root is arbitrarily selected as *ta.

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Lahu (and perhaps other languages) have somehow developed a stop-finalled variant in addition to the nasal-finalled one (i.e., *ʔaŋ > *ʔak-).

See Section VII.

III. Semantics of the *a- prefix

3.1 Before nouns

3.1.1 Kinship terms

The stressed variant of the prefix, *ʔa-, occurs widely in kinship terms. Wolfenden (1929: 71) considers this to have been “the oldest and original usage” of the prefix. A few examples:

(1) Written Tibetan (WT)

This kinship prefix is written with the letter a-chen (“big a”),4 transcribed by Jäschke (1881: 603–608) and Wolfenden (1929) as ‘a-, and by Benedict (1972) as ʔa:-

‘aunt’ ʔa-sru ‘grandmother’ ʔa-phyi5
‘elder brother’ ʔa-jo ‘husband of f’s sister’ ʔa-baŋ
‘elder sister/wife’ ʔa-che ‘mother’ ʔa-ma
‘father’s brother’ ʔa-khu ‘mother’s brother’ ʔa-žaŋ
‘father’s sister’ ʔa-ne

(2) Jingpho

Jingpho has a kinship prefix written as “a-” in earlier sources, but as “ə-” in Maran 1979, later revised to “ʔa-”. Maran was the first to observe (p.c., 1963) that the vocative forms of kin terms beginning with a sonorant are sometimes pronounced with preglottalization of the root, but without the schwa vowel, which here undergoes apheresis.6

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2) Where ɴ stands for a nasal at any point of articulation, but which was probably the velar /ŋ/.
3) This illustrates one of the most widespread patterns of variation in Tibeto-Burman. See Matisoff 1978: 23–25; 2003: 516–526.
4) See Section VIII.
5) Cf. Lahu a-pi, with the identical prefix.
6) This is rather analogous to the apheresis which I assume gave rise to the prenasalized initials of Tibetan, indicated by the letter a-chung before the root-initial. See Section VIII and Matisoff 2003: 114–115.
'daughter-in-law!' ʔnām  'maternal cross-cousin' ʔnīŋ
'elder sister' ʔnā  'mother' ʔnū
'father' ʔwā  'mother-in-law!' ʔmōi
'grandma' ʔwōi  'sister-in-law!' ʔrāt

(3) Lahu

Lahu uses two variants of the prefix in kinship terms: a³³- (usually vocative) and 3- (< *aŋ-; see VI below). They are often completely interchangeable. 7)

'father' a-pa / 3-pa  'mother (poetic)' a-ma / 3-ma
'grandfather' a-pū / 3-pū  'older sibling' a-vī / 3-vī
'grandmother' a-pī / 3-pī  'younger sibling' a-nī / 3-nī
'mother' a-e / 3-e  'siblings' a-vī-a-nī / 3-vī-3-nī

3.1.2 Body-parts

Many languages use this prefix before roots for parts of the body. For abundant examples, see Sections V and VI.

3.1.3 Genitive constructions

Many Himalayish and Kuki-Chin languages use the prefix in genitive constructions before the possessed noun, e.g. Bahing biŋ a-tami  'calf' ("cow its-child"); Lepcha vi a-so  'blood vessel' ("blood its-vessel"); Mikir kēng a-sék  'ankle' ("leg its-joint"), o-so a-hem  'placenta' ("child its-house"); Lotha o-mi e-khu  'smoke' ("fire its-smoke"). See V(6).

3.1.4 As a 3rd person prefix

Many Chin and Naga languages have developed neat systems of subject/object personal prefixes on verbs, 8) that do double duty as possessive prefixes on nouns. The 3rd person singular prefix is typically ʔa-, as, e.g. in Lai Chin:

ka-kal  'I go'  ka-rool  'my food'
na-kal  'you go'  na-rool  'your food'
ʔa-kal  'he/she goes' ʔa-rool  'his/her food'

3.1.5 For "phonological bulk" or meaning differentiation

In Lahu šā as a monosyllable usually means 'animal/game animal', but in compounds it means 'meat/flesh' (vāʔ 'pig', vāʔ-šā 'pork'). The prefixed form 3-šā always means 'meat/flesh'.

Wolfenden showed great insight in grouping together the kinship, body-part, genitival, and adjectival functions of the prefix. Although he did not use the term, what they seem to

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7) See my note 335 (p. 121) in Benedict 1972.
8) These are usually reduced forms of the independent personal pronouns. See HPTB: 89.
have in common is the notion of *inalienable possession*. 9)

3.2 Before verbs, especially stative ones

Our prefix occurs in dozens of languages before both intransitive and transitive verb roots, but with particular frequency before “adjectival” or “stative” verbs. (For many examples, see Sections V and VI.)

The prefix frequently appears as a nominalizer of verbs, e.g. Written Burmese (WB) hmañ‘ ‘ripe’, ṭahmañ‘ ‘ripeness’; lup ‘to work’, ṭəlup ‘work’ (n.); wa‘ ‘fat/full’, ṭəwa‘ ‘fatness’. In Lahu, a similar role is played by the prefix ɔ̀- (< ṭa-; below VI): chu ‘be fat’, ɔ̀-chu ‘fat/grease’; thîʔ ‘wrap’, ɔ̀-thîʔ ‘package’; me ‘be named’, ɔ̀-me ‘a name’.

Such nominalized verbs often occur as cognate objects, e.g. Lahu ɔ̀-thîʔ thîʔ ve ‘wrap a package’. 12)

IV. Phonetics: nasality and glottality

A key part of my historical phonetic scenario for the development of the *a*- prefix involves the triggering of a nasal feature by a glottal one, a phenomenon I have dubbed rhinoglottophilia (Matisoff 1975). The connection to be found in many languages around the world between laryngeal syllable onsets (h-, ṭ- or Ø-[zero]) and nasalization of the following vowel is especially noticeable in the case of low vowels, though in some languages and dialects the nasalization occurs with vowels of any height. Evidence has been adduced from Thai, Lao, Lahu, Lisu, Amoy Chinese13)—and, further afield, to Igbo (Kwa, Nigeria), 14) East Gurage (Semitic, Ethiopia), 15) Yiddish, and British English. 16)

A few examples (using N as the symbol for vowel nasalization):

(Thai) hâa ‘five’ [hãːn], hêe ‘parade’ [hêein], ṭaw ‘take’ [ʔawn], ‘leave’ ṭɔ̀k [ʔɔ̀nk]
(Lahu) ɔ̀ ‘four’ [ɔn], ɔ̀ ‘bend’ [ɔn], ho ‘elephant’ [hɔn], hɔ̀ ‘wrap up’ [hɔn?] 17)
(Yiddish) yankev ‘Jacob, James’ < Heb. yaʔakov; manse ‘deed/story’ < Heb. maʔase
(British English) art [ãːt], hour [ãː], half [hãːf], heart [hãːt].

9) This concept has been translated into Chinese as 不可让渡所有 bù kě ràng dú suǒyǒu, pronounced hukazyootosyoyu in Japanese.
10) For an early discussion of the interrelationship among genitive, relative, and nominalized forms, see Matisoff 1972b.
12) It is interesting to note that Tibetan cognate objects are formed in the opposite way from those in Loloish, since it is the verb that takes the prefix, not the noun: thags ṭhag-pa ‘weave a web’ (the noun thags is prefixless).
16) Soon after the publication of this article, Michailovsky (1975) pointed out a similar phenomenon in Hayu (E. Nepal).
17) Note that Lahu does not have glottal stop before initial vowels, but rhinoglottophilia works anyway with zero initial.
In the 1970’s, partly stimulated by rhinoglottophiliac conversations we had had, my colleague John Ohala devised a series of ingenious experiments that bear on the two principal phonetic questions at issue: (a) Why does vowel nasalization so frequently occur in the environment of glottal consonants? (b) Why is it mainly low vowels that are affected? Some of Ohala’s findings may be summarized as follows:

Vowel nasalization frequently occurs in the environment of laryngeals because (1) a nasal-oral coupling has negligible acoustic or perceptual effect on laryngeals, so that people are free to follow the principle of least effort, not bothering to raise the velum when it is not absolutely necessary; (2) there is no aerodynamic requirement for velar closure in the articulation of laryngeals; (3) in the case of [h], the open glottis exerts a positive acoustic effect on the vowel similar to that exerted by a lowered velum.

As for the rhinoglottophiliac preference for low vowels, the reason seems to be that a somewhat lowered velum can be tolerated during a low vowel because nasal coupling has less of an effect on its acoustic quality (Ohala 1974: 368). This is because the main effect of nasalization on sonorants is a downward shift in the region of the first formant. Thus the lower the first formant of a vowel is to begin with, the less apt it will be to suffer the further degradation of a downward shift. Since low vowels have higher first formants than high vowels, they are less resistant to nasalization (Ohala 1975: 6).

Although the historical importance of a glottal element in initial consonants is universally recognized—after all, *glottalized series of obstruents and sonorants must certainly be reconstructed for TB subgroups like Lolo-Burmese—the appearance of glottal stop initially before a vowel has seemed less important. This is because prevocalic [ʔ] is often automatic and subphonemic, as in German. Yet even predictable phonetic features can exert effects on neighboring segments, and it often behooves the analyst to take account of them. In fact a large number of TB languages do have glottal stop initially before a vowel, which is of both synchronic and diachronic interest.

Even though nasal and glottal features may occur simultaneously in a synchronic syllable, from a diachronic point of view glottality seems primary. That is, one can plausibly derive a nasal feature from a glottal one (e.g. via rhinoglottophilia), but there seems to be no way to do the opposite, i.e. to derive glottality from nasality.

As we shall see below (VIII), the mysterious Written Tibetan letter known as a-chung, when it occurs initially before a vowel, is realized in several Tibetan dialects as glottal stop, and in others as the voiced velar spirant [ɣ]; whereas in preconsonantal position it stands for prenasalization.

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19) In other words, glottal consonants seem to require neither a raised nor a lowered velum, “but instead allow the velar elevation to be determined by neighboring consonants and vowels” (Ohala 1972: 1168). This is in sharp contrast both to obstruents (which require a raised velum) and to nasal consonants (which forbid a totally raised velum).

20) These languages do not include Lahu, but they do include four languages discussed below that have recently been put into focus by Shintani, from widely separated branches of TB (Pyen, Shanke, Zayein, Zotung). See Sections V and VI.
Glottality and nasality are both suprasegmental features, in that they can appear at many different places within a syllable. It is interesting to place their various manifestations along a continuum. Thus Jingpho exemplifies three stages of glottalization: (a) semisyllabic prefixal ʔə-; (b) preglottalized sonorants; (c) constricted vowels.\(^{21}\) Similarly, several different types of nasal onsets are attested in branches of TB:

(a) nasal consonant plus full vowel

Lotha me-, mo-, mu- (dissyllabic)

(b) nasal consonant plus schwa

Jingpho mo- (sesquisyllabic)

(c) syllabic nasal homorganic with the root initial

Jingpho, Ao mb- (dissyllabic)\(^{22}\)

(d) glottal stop plus full vowel plus nasal consonant

Bisu ʔəŋ- (dissyllabic)

(e) glottal stop plus schwa plus nasal consonant

Rawang ʔəŋ- (dissyllabic)

(f) glottal stop plus nasalized vowel

Phunoi ʔã- (dissyllabic)

(g) prenasalized root initial (monosyllabic)

Nzieme, Khams Tibetan, Amdo Tibetan, Luquan Lolo, Mpi mb-

This in turn is analogous to the continuum of erosion of nasal final consonants to be found in such branches of TB as Lolo-Burmese, where Written Burmese preserves the original final nasal consonant, while Modern Burmese has reduced this to nasalization of the vowel, and Lahu has lost the nasality altogether, compensating for this by a change in the quality of the vowel:

<table>
<thead>
<tr>
<th>Written Burmese</th>
<th>Modern Burmese</th>
<th>Lahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>-am</td>
<td>-ā</td>
<td>-o</td>
</tr>
</tbody>
</table>

‘iron’ sam θā šo

V. The non-nasal variant of the *a- prefix (with open vowel)

5.1 Stressed (dissyllabic)

We have already cited examples of the stressed version of this prefix above (3.1.1) in connection with kinship terms in Written Tibetan, Jingpho, and Lahu. In this section we proceed to a number of other languages from several different subgroups of TB that also

\(^{21}\) See Matisoff 2003: 114.

\(^{22}\) Kurabe (2016: 62 ff.) treats both Jingpho words of type (b) [with the ma- prefix] and type (c) [with syllabic nasal] as sesquisyllabic. As we shall see below (VIII), Written Tibetan also has both a sesquisyllabizing prefix m- and a prenasalizing prefix ḥ-.
exemplify this allomorph of the prefix. First let us look at several TB languages studied by T. Shintani in connection with his ongoing project, *Linguistic Survey of the Tay Cultural Area*: Zayein, Shanke, and Zotung.

(1) Zayein (Shintani 2014a)

This is an understudied Karenic language spoken between the towns of Mobyè and Phekon (or Phaikhum) in southern Shan State, Myanmar.

Shintani transcribes the prefix in question as ʔa³³-. Karenic is an atypical branch of TB in many ways, chiefly because of its non-verb-final syntax. Zayein also seems atypical in the distribution of its prefix ʔa³³-. Unlike the other languages already cited, this prefix occurs mostly exclusively with Zayein noun roots (including color terms)²³, but apparently only with a relatively few clearly verbal ones.

(A) Before nouns (especially bodyparts and natural objects)

| ‘bone’      | ʔa³³-cui⁵⁵ | ‘branch’   | ʔa³³-pha⁵⁵ |
| ‘corner’    | ʔa³³-cain⁴² | ‘egg’      | ʔa³³-fo⁵⁵  |
| ‘foam’      | ʔa³³-bu⁴²  | ‘fruit’    | ʔa³³-θa⁴²  |
| ‘leaf’      | ʔa³³-la⁴²  | ‘liver’    | ʔa³³-tun⁴² |
| ‘poison’    | ʔa³³-tur⁴² | ‘skin’     | ʔa³³-phi⁴² |

| ‘black’     | ʔa³³-plen⁵⁵ | ‘blue/green’ | ʔa³³-tun⁵⁵ |
| ‘red’       | ʔa³³-li³³   | ‘white’      | ʔa³³-bu⁵⁵  |
| ‘yellow’    | ʔa³³-ba⁵⁵   |             |            |

(B) Before verbs

| ‘lean on’   | ʔa³³-tɔŋ⁵⁵ |
| ‘wait for’  | ʔa³³-paʊŋ⁵⁵ |

In addition there is a noun in Shintani’s data which seems to have developed (or preserved) a fully syllabic nasalized prefix: ‘chest (bodypart)’ Zayein ʔaŋ⁵⁵da⁴². However, Solnit explains (p.c., Feb. 2017) that the first syllable is more likely the full morpheme for ‘chest’: cf. Pa-O sáʔ-ʔaŋ (sáʔ ‘heart’), Pekon án-dà (dà is perhaps ‘lid, cover’), E. Kayah Li təʔ-ɔ, Kayaw sɔʔ-ɔ < Proto-Karen *ʔaŋ.

There is also evidence that the Zayein prefix ʔa³³- had a 3rd person pronominal use, as in the Chin languages: ʔa³³-na⁵⁵ ‘he/she; his/her’. (See above 3.1.4.)

²³ Color terms in many TB languages have both nominal and verbal characteristics. An anonymous reviewer points out that these color terms seem to be basically verbal in Sgaw and Pho Karen, where the semantically corresponding words can be nominalized by the prefix ʔə-. In Lahu each color term seems to be a law unto itself on the noun/verb continuum. Both náʔ ‘black’ and ní ‘red’ may be preceded by the ə- prefix (below 6.2), but náʔ seems to be more than nominal than verbal, while ní seems to be more verbal than nominal. See Matisoff 1988: 173, 174, 751–2, 760.
Shanke (Shintani 2015a)

According to Shintani, Shanke is a Naga language with pronounced affinities for Jingpho. It is thus presumably in the “Northern Naga” group (see French 1983), that forms part of the wider “Sal” (Burling 1983) or the Jingpho/Northern Naga/Barish/Luish supergroup (Matisoff 2013).

The Shanke prefix written ʔa³³- occurs before a number of nouns (notably including kinship terms and bodyparts), but much more frequently before verbs. It appears most often before intransitive verbs (especially adjectives), but also before quite a few transitive verbs as well. Here is a fair sampling:

(A) Before nouns

(i) Kin terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Shanke Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>father’s younger brother</td>
<td>ʔa³³-hu⁵³</td>
<td>son</td>
</tr>
<tr>
<td>older sister</td>
<td>ʔa³³-ɲi⁵⁵</td>
<td>son’s son</td>
</tr>
<tr>
<td>paternal grandmother</td>
<td>ʔa³³-ɲi⁵⁵</td>
<td>son’s son</td>
</tr>
</tbody>
</table>

(ii) Body parts (human and animal)

<table>
<thead>
<tr>
<th>Term</th>
<th>Shanke Prefix</th>
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</tr>
</thead>
<tbody>
<tr>
<td>bone</td>
<td>ʔa³³-hru⁵³</td>
<td>skin</td>
</tr>
<tr>
<td>egg</td>
<td>ʔa³³-tai⁵³</td>
<td>tail</td>
</tr>
<tr>
<td>horn</td>
<td>ʔa³³-hraq⁵³</td>
<td>tooth</td>
</tr>
<tr>
<td>liver</td>
<td>ʔa³³-dzən⁵³</td>
<td>wing</td>
</tr>
</tbody>
</table>

(iii) Other

<table>
<thead>
<tr>
<th>Term</th>
<th>Shanke Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>above</em></td>
<td>ʔa³³-tha⁵³</td>
<td>corpse</td>
</tr>
<tr>
<td>leaf</td>
<td>ʔa³³-ja⁵³</td>
<td>loom</td>
</tr>
<tr>
<td>name</td>
<td>ʔa³³-məŋ⁵⁵</td>
<td>one</td>
</tr>
<tr>
<td>three</td>
<td>ʔa³³-dəm⁵³</td>
<td>two</td>
</tr>
</tbody>
</table>

(B) Before verbs

(i) Adjectival verbs

<table>
<thead>
<tr>
<th>Term</th>
<th>Shanke Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bitter/salty</td>
<td>ʔa³³-khəp</td>
<td>black/dark</td>
</tr>
<tr>
<td>dull</td>
<td>ʔa³³-tau⁵³</td>
<td>hard</td>
</tr>
<tr>
<td>heavy</td>
<td>ʔa³³-lai⁵³</td>
<td>itchy</td>
</tr>
<tr>
<td>spicy hot</td>
<td>ʔa³³-dzu⁵³</td>
<td>thin/shallow</td>
</tr>
</tbody>
</table>

24) I counted approximately 71 adjectival examples in Shintani 2015a.
(ii) Intransitive action verbs

<table>
<thead>
<tr>
<th>Verb</th>
<th>Shanke Form</th>
<th>PTB Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘alive’</td>
<td>ʔa³³-ta³³</td>
<td>*za³³-se⁵³</td>
</tr>
<tr>
<td>‘kick’</td>
<td>ʔa³³-hap⁵³</td>
<td>*ba³³-pi⁵³</td>
</tr>
<tr>
<td>‘sit’</td>
<td>ʔa³³-jə⁵⁵</td>
<td>*swa³³-vi³³</td>
</tr>
<tr>
<td>‘swell up’</td>
<td>ʔa³³-chaŋ⁵⁵</td>
<td>*za³³-nin⁴²</td>
</tr>
</tbody>
</table>

(iii) Transitive verbs

<table>
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<tr>
<th>Verb</th>
<th>Shanke Form</th>
<th>PTB Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘cover’</td>
<td>ʔa³³-həp³³</td>
<td>*za³³-se⁵³</td>
</tr>
<tr>
<td>‘fry’</td>
<td>ʔa³³-ko⁵⁵</td>
<td>*ba³³-pi⁵³</td>
</tr>
<tr>
<td>‘polish’</td>
<td>ʔa³³-pan⁵⁵</td>
<td>*swa³³-vi⁵³</td>
</tr>
<tr>
<td>‘strike/slap’</td>
<td>ʔa³³-bok³³</td>
<td>*za³³-nin⁴²</td>
</tr>
<tr>
<td>‘weave’</td>
<td>ʔa³³-vai⁵⁵</td>
<td>*ba³³-pi⁵³</td>
</tr>
</tbody>
</table>

There are several examples which seem to indicate that Shanke has developed a front vowel from PTB *-a, a phenomenon which has been called “brightening”, and which is characteristic of the Qiangic group of Tibeto-Burman.

PTB Shanke

<table>
<thead>
<tr>
<th>Verb</th>
<th>Shanke Form</th>
<th>PTB Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘son’</td>
<td>*za³³-se⁵³</td>
<td>*za³³-se⁵³</td>
</tr>
<tr>
<td>‘thin’</td>
<td>*ba³³-pi⁵³</td>
<td>*ba³³-pi⁵³</td>
</tr>
<tr>
<td>‘tooth’</td>
<td>*swa³³-vi³³</td>
<td>*swa³³-vi³³</td>
</tr>
</tbody>
</table>

(3) Zotung (Shintani 2015b)

Zotung is an understudied Chin language spoken in the Matupi area of Chin State, Burma. The Zotung prefix ʔa³³- occurs before a small number of nouns in Shintani’s data (around 30), but mostly before verbs. Among the verbs this prefix is overwhelmingly frequent with adjectives (about 70) and other intransitive verbs (around 30), but only quite rarely with transitives (about 10 examples). In addition, this prefix occurs as a 3rd person marker, as is generally characteristic of the Chin languages, e.g. ‘he/she’ ʔaa³³-nin⁴²; ‘his/her son’ ʔaa³³-nin⁴² (Shintani 2015b: 188–9).

(A) Before nouns (especially bodyparts and natural objects)

<table>
<thead>
<tr>
<th>Noun</th>
<th>Shanke Form</th>
<th>PTB Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘bone’</td>
<td>ʔa³³-ru⁴⁵⁴</td>
<td>*za³³-se⁵³</td>
</tr>
<tr>
<td>‘crown of head’</td>
<td>ʔa³³-khia⁴²</td>
<td>*ba³³-pi⁵³</td>
</tr>
<tr>
<td>‘eye’</td>
<td>ʔa³³-mi⁵⁵</td>
<td>*swa³³-vi⁵³</td>
</tr>
<tr>
<td>‘head’</td>
<td>ʔa³³-lu⁴²</td>
<td>*za³³-nin⁴²</td>
</tr>
<tr>
<td>‘lung’</td>
<td>ʔa³³-tua⁴²</td>
<td>*ba³³-pi⁵³</td>
</tr>
<tr>
<td>‘tongue’</td>
<td>ʔa³³-læ⁴²</td>
<td>*swa³³-vi⁵³</td>
</tr>
</tbody>
</table>

25) I counted about 35 examples of verbs of this type in Shintani, op. cit.
26) I counted about 66 examples of transitive verbs in Shintani.
'branch' ʔa³³-ran⁴²  ‘bud’ ʔa³³-ʔu⁴² ma⁴² run⁴²
'fruit' ʔa³³-thæ⁴²  ‘leaf’ ʔa³³-no⁴⁵⁴
'root' ʔa³³-tha⁴² rui⁴²  ‘seed’ ʔa³³-mon⁴⁵⁴
'sprouts’ ʔa³³-ci⁴²

(B) Before verbs

(i) Adjectival verbs
‘bitter’ ʔa³³-kha⁵⁵  ‘crooked’ ʔa³³-ku⁴²
‘fat’ ʔa³³-tho⁴²  ‘full’ ʔa³³-be⁵⁵⁴⁴
‘itchy’ ʔa³³-tha⁵⁵  ‘raw’ ʔa³³-he⁴²
‘ripe’ ʔa³³-vue⁴²  ‘soft’ ʔa³³-no⁴⁵⁴
‘thin’ ʔa³³-pa⁵⁵  ‘wet’ ʔa³³-cia⁴²

‘black’ ʔa³³-man⁴²  ‘green’ ʔa³³-hin⁴²
‘red’ ʔa³³-se⁴²  ‘yellow’ ʔa³³-me⁴²
‘white’ ʔa³³-ro⁴²

Note the use of this prefix with color terms. As just noted above, color terms occupy a paradoxical role in many TB languages, having both nominal and verbal characteristics.

(ii) Intransitive action verbs (change of state; body moves; utterance)
‘bloom’ ʔa³³-po⁴²  ‘crawl’ ʔa³³-vu⁴²
‘decay’ ʔa³³-ru⁴²  ‘defecate’ ʔa³³-ce⁵⁵⁴⁴
‘fly’ ʔa³³-ju⁴²  ‘lie down’ ʔa³³-hu⁴²
‘roar’ ʔa³³-ro⁴²  ‘swell up’ ʔa³³-phein⁴²

(iii) Transitive verbs
‘carry on pole’ ʔa³³-pui⁵⁵  ‘peck’ ʔa³³-tu⁵⁵⁴⁴
‘cover’ ʔa³³-fu⁴⁵⁴  ‘strain’ ʔa³³-ho⁴²

(4) Tangkhul Naga

A recent dissertation on this language (Leisan 2016) amply confirms the various semantic extensions of the versatile ʔa- prefix. This prefix, written /ʔe³/ in Leisan’s transcription, appears especially before the categories of noun roots (the “inalienably possessed”) that we have come to expect, including kinship terms and bodyparts.

28) See Leisan 2016: 82, 84–5, 104.
(i) Kinship terms
‘grandchild’ $v^3\cdot i^3$ ‘grandmother’ $v^3\cdot ji^3$
‘grandfather’ $v^3\cdot vo^3$ ‘mother’ $v^3\cdot vi^1$

(ii) Bodyparts
‘bile’ $v^3\cdot thi^1$ ‘lungs’ $v^3\cdot phe\cdot i^2$
‘head’ $v^3\cdot kui^1$ ‘spleen’ $v^3\cdot pei^3$
‘intestines’ $v^3\cdot kha^2\cdot i^3$ ‘urinary bladder’ $v^3\cdot pho^2$

Also in the inalienable category is $v^3\cdot mi^3$ ‘name’. After all, a name is as much a part of one’s identity as a bodypart! ‘Your name’ is expressed in Tangkhul as $nə^2\cdot vi^3\cdot v^3\cdot mi^3$, which is morpheme-by-morpheme cognate with Lahu $nə^2\cdot ve\cdot =device\cdot me$. Tangkhul $vi^3$ and Lahu $ve$ are genitive markers; see (iv) below.

(iii) Nominalizer
Before Tangkhul verbal roots, $v^3\cdot$ serves as a nominalizer:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘bloom’ $von^3$</td>
<td>‘flower’ $v^3\cdot von^1$</td>
</tr>
<tr>
<td>‘break’ $tek^2$</td>
<td>‘broken piece of wood’ $v^3\cdot tek^1$</td>
</tr>
<tr>
<td>‘high’ $tfui^3$</td>
<td>‘height’ $v^3\cdot tfui^1$</td>
</tr>
<tr>
<td>‘sit’ $pəm^2$</td>
<td>‘place’ $v^3\cdot pəm^1$</td>
</tr>
<tr>
<td>‘smell’ $ŋə^3\cdot nəm^3$</td>
<td>‘a smell’ $v^3\cdot ŋə^3\cdot nəm^1$</td>
</tr>
</tbody>
</table>

Note that the tone of the verb undergoes a change to high /¹/ in its nominal form. The prefixed word for ‘name’ just cited is also probably a nominalization of a basic verb $mi^3\cdot 33$ ‘to be named’, just as Lahu $=device\cdot me$ ‘a name’ is a nominalization of the verb $me$ ‘be named’. On the other hand, the tone of the Tangkhul root is not changed to high level in its nominal form.

(iv) Third person pronoun
The independent Tangkhul 3rd person pronoun is $v^3\cdot$ ‘he/she’. In this usage it is not a prefix. This morpheme is obligatorily followed by the particle $vi^3$ in genitive constructions: $v^3\cdot vi^3\cdot kui^1$ ‘his/her head’. 29) For the usage of the *ʔa- prefix as a 3rd person marker on nouns and verbs in the Chin languages, see above 3.1.4.

(5) Lotha
The relatively well-studied Lotha Naga language has two prefixes, $o\cdot$ and $e\cdot$, which both descend from the open-syllable variant of the *a- prefix.

29) As mentioned above, Tangkhul $vi^3$ is cognate with Lahu $ve$. Both descend from a PTB copular morpheme *way (Matisoff 1985).
(A) Lotha prefixal o-

Lotha -o is the regular reflex of PTB *-a:

<table>
<thead>
<tr>
<th>PTB</th>
<th>Lotha</th>
</tr>
</thead>
<tbody>
<tr>
<td>*sya</td>
<td>o-so</td>
</tr>
<tr>
<td>*wa</td>
<td>wo-ro</td>
</tr>
<tr>
<td>*g/r-na</td>
<td>e-no</td>
</tr>
<tr>
<td>*dzya</td>
<td>tso</td>
</tr>
<tr>
<td>*pʷa</td>
<td>po, o-po</td>
</tr>
<tr>
<td>*ŋya</td>
<td>o-ngo</td>
</tr>
<tr>
<td>*m/l-ŋa</td>
<td>mungo</td>
</tr>
<tr>
<td>*s-na</td>
<td>ken-no</td>
</tr>
<tr>
<td>*swa</td>
<td>o-ho</td>
</tr>
</tbody>
</table>

In some words the Lotha reflex of PTB *-a is transcribed in the sources (e.g. Marrison 1967) as “-oa” or “-ua” or “oe”, i.e. something like [wa]:

- ‘bitter’ *ka khoa
- ‘child’ *za o-tsoe
- ‘thin’ *ba e-pua

In ‘rain’ the Lotha reflex has become –u:

- ‘rain’ *rwa e-ru

In prefixal position, Lotha o- occurs before many kinship terms, directly reflecting PTB *a- in this usage:

- ‘aunt’ o-no ‘grandmother’ o-tsü
- ‘daughter’ o-ka ‘husband’ o-ra-pvü
- ‘elder brother/elder sister’ o-ta ‘mother’ o-pvü
- ‘father’ o-po ‘uncle’ o-po-ro; o-phyo
- ‘grandchild’ o-tso-erri ‘younger brother’ o-nyü
- ‘grandfather’ o-mo-tsü ‘younger sister’ o-yi-lo; o-nyi-ro

The limited evidence available shows that PTB *-an remains -an in Lotha (unlike, e.g. in Lahu, where *-an becomes -a; below, Section VI):

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30) The Central Loloish language Lisu also shows labialization of velars before -a: Lisu khwa³¹ ‘bitter’. 
PTB  Lotha
‘black’  *tyaŋ  chang
‘deaf’  *baŋ  e-no pang-a (e-no ‘ear’)
‘dream’  *maŋ  o-mang
‘tight’  *taŋ  *daŋ  thang-thang-to

So Lotha o- must come from the non-nasal, open-syllable variant *a-. (It is not clear whether Lotha syllables beginning with a vowel have a preceding glottal stop, but I think not.)

Lotha prefixal o- occurs before dozens of nouns, e.g.:

‘bee’  o-tsak  ‘name’  o-myang
‘eye’  o-mhyek  ‘needle’  o-pyam
‘field’  o-li  ‘pot’  o-pfhu
‘fire’  o-mi  ‘road’  o-lan
‘frog’  o-vu  ‘sheep’  o-lyu
‘house’  o-ki  ‘silver’  o-rang
‘language’  o-yi  ‘spirit/shadow’  o-mon
‘leaf’  o-wo  ‘tree’  o-tong
‘louse’  o-hrak  ‘wild boar’  o-ni
‘mouth’  o-pang  ‘worm’  o-ra

There is a variant prefix or- before roots beginning in r-:

‘bone’  or-rü  ‘cane’  or-ru
‘bug’  or-ra  ‘enemy’  or-rü

This prefix seems to be quite rare before Lotha verbs. The only examples so far found:

‘high’  o-ya-ki
‘pay’  o-tsen
‘wait’  o-sa

(B) Lotha prefixal e-

It seems reasonable to assume that the Lotha prefix e- descends from a variant *ya-. 31)

No other certain examples of Lotha reflexes of TB etyma in *-ya have yet been identified.

31) Contra HPTB: 111, where I said it was “perhaps from *ʔiŋ.” The Lotha reflex of *-iŋ seems rather to be –yaŋ, e.g.: ‘full’ PTB *blitʃ  *pliŋ > Lotha phyang-a; ‘name’ PTB *r-miŋ > Lotha o-myang.
(i) Before nouns

Dozens of nouns occur with this prefix in Lotha. A few examples:

- ‘arm’ e-won
- ‘neck’ e- ngu
- ‘blood’ e-chen
- ‘one’ e-kha
- ‘cloud’ e- lok
- ‘shoulder’ e- pfhu
- ‘comb’ e-sha
- ‘tail’ e-mhi
- ‘fat (n.)’ e- khu
- ‘valley’ e-kok
- ‘fruit’ e-thi
- ‘wall’ e- phi
- ‘hole’ e-po
- ‘wax’ e-ran
- ‘horn’ e-chhü
- ‘widow’ e-mi
- ‘leech’ e-van
- ‘wife’ e-ngü
- ‘life’ e-thak
- ‘wing’ e- cho

A variant prefix er- sometimes appears before roots beginning in r-: ‘intestines’ er-rü.

(ii) Before verbs

- ‘blow’ e-sap
- ‘new’ e- than
- ‘boil’ e-lak
- ‘ripe’ e- mhe
- ‘cough’ e- khu
- ‘run’ e-san
- ‘dance’ e-lha
- ‘scratch’ e-nak
- ‘dumb’ e-yim
- ‘steal’ e-fü
- ‘follow’ e-tang
- ‘strong’ e-tho
- ‘grind’ e-nhyak
- ‘suffer’ e-züp
- ‘hot’ e-lama
- ‘wrap’ e-yok
- ‘laugh’ e-mathat
- ‘write’ e- ran

There is an example of a variant prefix eng- before a root beginning with a velar:

- ‘bite’ eng-kak

(C) Combined use of o- and e- in genitival collocations:

Both of these Lotha prefixes co-occur in genitival collocations, where the e- prefix seems to have inalienable possessive force:

- o-mi e-khu
- ‘smoke’ ("fire its-smoke")
- o-tsoe e-pue
- ‘son’ ("child its-maleness")
- o-mhyek e-chang
- ‘blindness’ ("eye its-blackness?")

This sort of genitival function for e- suggests an alternative etymology to what was suggested above. If it is cognate to the Jingpho genitive particle ṣai, it would point to a PTB etymon ṣay, rather than *ya. For now the source of Lotha prefixal e- remains undetermined. Cf. a similar use of two prefixes o- and a- in Mikir genitive constructions (above 3.1.3), e.g. oso a-hem ‘placenta’ ("child its-house").

(6) Mao Naga

As mentioned in HPTB (2003: 111), the understudied Mao Naga language also favors the prefix o- with noun roots, especially bodyparts:

- 'arm' o-ba
- 'dish' o-khe
- 'belly' o-phu
- 'dog' o-si
- 'foot' o-phi
- 'fire' o-mi
- 'heart' o-le
- 'house' o-chü
- 'tooth' o-ho
- 'rope' o-ri
- 'tiger' o-khe

There is also at least one example of the e- prefix in Mao: eve ‘leech’ (cf. Mikir ing-phat).

5.2 The unstressed variant with open vowel (sesquisyllabic)

The prime example of a language which features an unstressed variant of the *a- prefix is Burmese, where the prefix ṣə- occurs before literally hundreds of roots, both nominal and verbal. Of the 1123 pages of Judson’s classic dictionary, approximately 122 (over one-tenth) are devoted to words with this prefix. This poses quite a problem for lexicographers, since it requires a good chunk of the vocabulary to be listed twice, both with and without the prefix. (There is often a slight meaning difference between the prefixed and unprefixed forms.) Judson’s dictionary treats the consonantal letter ḡ as the first letter of the alphabet, while other dictionaries (e.g. Harada and Ohno 1979) treat it as the last one. The latter decision seems to involve less work, since the prefixed forms are only a subset of the non-prefixed ones.

VI. The nasal variant of the *a- prefix

It has been mentioned that secondary nasalization in the environment of laryngeals or zero-initials is most common with low vowels (above, IV). This fits neatly with the theory that it was the low-vowelled *ʔa- prefix that developed “rhinoglottophiliac” nasalization in many Tibeto-Burman languages.

33) Cf. the rather different Lotha construction for 'deaf', e-no pang-a (“deaf of the ear”). The morphemes in the Lahu collocation nā pō ve (“ear is deaf; deaf with respect to the ear”) are exactly cognate to Lotha no and pang.

34) A small number of words beginning with the unstressed Burmese letter ḡ are not instances of this prefix, but are rather borrowings from Pali words with the negative prefix ṣə- (< Skt. a-).
6.1 Southern Loloish: direct evidence from Bisu, Phunoi, Pyen, Sangkong, Akha

(1) Bisu

The Bisu prefix ʔaŋ- occurs before both nominal and stative verbal (adjectival) roots:35)

(A) before nouns (especially body-parts)

‘bone’ ʔaŋ-gàw
‘breath’ ʔaŋ-sà
‘egg’ ʔaŋ-ʔù
‘head’ ʔaŋ-tù
‘horn’ ʔaŋ-khjáw
‘liver’ ʔaŋ-hmaw
‘meat’ ʔaŋ-fà

The productivity of this prefix is shown by its occurrence with loanwords:

‘body’ ʔaŋ-to (to < Tai; cf. Siamese tua)

(B) before stative verbs (adjectives)

‘bitter’ ʔaŋ-khà
‘deep’ ʔaŋ-hnà
‘full’ ʔaŋ-plwnà
‘many’ ʔaŋ-bjà
‘red’ ʔaŋ-hàé
‘sick’ ʔaŋ-dà
‘sweet’ ʔaŋ-chày

(2) Phunoi (Bradley 1979)

The Phunoi language, closely related to Bisu, shows a weakening of the final nasal of the prefix to a nasalized vowel, yielding the prefix ʔà⁵⁵-:

(A) before nouns (especially body-parts)

‘body hair’ ʔà⁵⁵-hmot³³
‘bone’ ʔà⁵⁵-jàu¹¹
‘ear’ ʔà⁵⁵-hna¹¹
‘eye’ ʔà⁵⁵-bi³³
‘head’ ʔà⁵⁵-tu³³
‘intestines’ ʔà⁵⁵-ʔù⁵⁵
‘liver’ ʔà⁵⁵-sin¹¹

35) See Beaudouin 1991, where the prefix is written aŋ-, without the glottal stop.
(B) before a few adjectival verbs

- ‘alive’ ʔa⁵⁵-tu¹¹
- ‘full’ ʔa⁵⁵-piŋ³³

(3) Pyen (Shintani 2009)

Pyen has both ʔaŋ⁵³- and ʔa³³-; i.e. it preserves both the open- and nasal-final variants of the prefix.

(A) Pyen ʔaŋ³³-

Pyen ʔaŋ³³- occurs with body-parts, with a few kinship terms and natural objects, but especially with adjectival verbs.

(i) with body-parts

- ‘bone’ ʔaŋ³³-ga⁵³
- ‘egg’ ʔaŋ³³-ʔu³³
- ‘flesh’ ʔaŋ³³-sa³¹
- ‘head’ ʔaŋ³³-tu³¹
- ‘horn’ ʔaŋ⁴⁵-chao⁴⁵ [note the different tone of the prefix]
- ‘intestines’ ʔaŋ³³-ʔu⁴⁵
- ‘skin’ ʔaŋ³³-khɔ⁴⁵

(ii) with kinship terms

- ‘elder brother’ ʔaŋ³³-ʔai⁴⁵
- ‘daughter’s husband’ ʔaŋ³³-ʃɔŋ³¹
- ‘husband’ ʔaŋ³³-bloŋ⁴⁵
- ‘son’s wife’ ʔaŋ³³-chu⁴⁵

(iii) with natural objects

- ‘leaf’ ʔaŋ³³-cɯŋ⁴⁵pha³¹
- ‘root’ ʔaŋ³³-che⁴⁵
- ‘tree’ ʔaŋ³³-cɯŋ⁴⁵

(iv) with adjectival verbs

- ‘big’ ʔaŋ³³-hu³¹
- ‘crooked’ ʔaŋ³³-koe³¹
- ‘deep’ ʔaŋ³³-na³¹
- ‘delicious’ ʔaŋ³³-chao⁴⁵
- ‘dry’ ʔaŋ³³-ku⁴⁵
- ‘far’ ʔaŋ³³-wa³¹
- ‘heavy’ ʔaŋ³³-han³¹
- ‘light’ ʔaŋ³³-jaŋ⁴⁵
- ‘long (time)’ ʔaŋ³³-manŋ³¹
- ‘raw’ ʔaŋ³³-cum³¹
- ‘ripe’ ʔaŋ³³-miŋ³³
- ‘shallow’ ʔaŋ³³-tam⁴⁵
- ‘small’ ʔaŋ³³-ji⁴⁵
- ‘sour’ ʔaŋ³³-chen⁴⁵
- ‘thick’ ʔaŋ³³-thu⁴⁵
- ‘wet’ ʔaŋ³³-cen⁴⁵
The productivity of this prefix is shown by its occurrence with loanwords:

‘fragrant’ ʔaŋ³³-hɔm³³ (< Tai; cf. Siamese hɔm)

(B) Pyen ʔa³³-

This variant of the prefix occurs with a miscellaneous array of nouns, especially kinship, natural objects and animals:

(i) kinship

‘elder sister’ ʔa³³-ʃi⁴⁵
‘father’ ʔa³³-boŋ⁴⁵
‘father’s older brother’ ʔa³³-ʔɯ³¹
‘father’s younger sister’ ʔa³³-bɯŋ³³
‘mother’ ʔa³³-ba³³
‘younger brother’ ʔa³³-phe⁴⁵
‘younger sister’ ʔa³³-po³¹

(ii) natural objects

‘moon’ ʔa³³-la⁴⁵
‘star’ ʔa³³-kɯ⁴⁵
‘wind’ ʔa³³-man⁴⁵

(iii) animals

‘bear’ ʔa³³-vam⁴⁵
‘cat’ ʔa³³-mɛŋ³¹
‘crab’ ʔa³³-cha⁵⁵
‘crow’ ʔa³³-wa³¹
‘duck’ ʔa³³-kao³¹
‘horse’ ʔa³³-mɔŋ³¹
‘ox’ ʔa³³-mjaŋ⁴⁵hu⁴⁵
‘turtle’ ʔa³³-hoŋ⁴⁵

(iv) body parts

‘liver’ ʔa³³-chin³¹
‘leg’ ʔa³³-khui⁴⁵

There is an interesting Southern Loloish word for ‘lungs’: Pyen m³³mao³³, with syllabic nasal prefix; cf. Bisu ʔanŋ-hmaŋ ‘liver’⁵⁰, Phunoi ʔaŋ⁵⁵hmap³³ ‘lung’, Sangkong an⁶⁵phap

'lung'. There is also an interesting Pyen/Tibetan cognate for ‘liver’: Pyen ʔa-chin³¹/WT mchin-pa < PTB *m-sin.

(4) Sangkong an³³- (note that Li Yongsui 1991 does not write pre-vocalic ʔ-)
This prefix apparently occurs in Sangkong only before body-part nouns:

| ‘bone’  | an³³-žo³¹ | ‘head’  | an³³-tu³¹ |
| ‘brain’ | an³³-nq³¹ | ‘intestines’ | an³³-u⁵⁵ |
| ‘ear’   | an³³-na³¹ | ‘lung’  | an³³-phap |
| ‘hair (head)’ | an³³-tsham⁵⁵ | ‘tooth’ | an³³-so³¹ |
| ‘hand’  | an³³-la³¹ | ‘waist’ | an³³-teo³¹ |

(5) Akha yɔ-
This Akha prefix also reflects the rhyme *-aŋ, since *-aŋ regularly becomes Akha -ɔ, while *-a remains Akha –a (see Hansson 1989: 40; 35–36).
The prefix yɔ- (written “yaw-” in Lewis 1986) regularly occurs before Akha adjectival verbs (Lewis’ transcription with Hansson’s tone-marks):

| ‘alert’  | yaw-zo | ‘hot to the touch’ | yaw-cuí |
| ‘big/wide’ | yaw-hũi | ‘insipid (food)’ | yaw-byâw |
| ‘bitter’ | yaw-kã | ‘lazy’ | yaw-byá |
| ‘black’  | yaw-nãq | ‘new’ | yaw-shũq |
| ‘bushy’  | yaw-byũ | ‘rough’ | yaw-sáq |
| ‘cold’   | yaw-gãq | ‘striped’ | yaw-byâq |
| ‘crooked’ | yaw-gòq | ‘thick’ | yaw-tũ |
| ‘dirty/filthy’ | yaw-dœ | ‘thin’ | yaw-bã |

The palatal semivowel in Akha yɔ suggests that this prefix should be reconstructed as *yan-, thus claiming it has the same source as Lotha e- (above V.5) and Mikir ing- (below 6.5).

6.2 Central Loloish
(1) Lahu
By far the most common Lahu prefix is ɔ- 37) which is the regular reflex of the PLB and PTB rhyme *-aŋ:

37) The other two related prefixes in Lahu are a-, used in kinship terms; above 3.1.1(3), and ɔ- (below, section VII).
Of the 1414 pages in my Lahu Dictionary (Matisoff 1988), 86 pages are devoted to words with this prefix.

(2) Lalo

Lalo (West Central Loloish), a language closely related to Lahu, has both the non-nasal a⁵⁵- and the nasal variant aŋ¹³-. As reported in Zhou Tingsheng (2016: 7), the a⁵⁵- variant is widely used in names and kinship terms, but also occurs with a number of common nouns as well, e.g. a⁵⁵-khɯ²¹ ‘dog’. Apparently a⁵⁵- once functioned as a nominalizing prefix, having left a trace of this in a few words: to²¹ ‘light a fire’ > a⁵⁵-to²¹ ‘fire’; phi³³ ‘be bad’ > a⁵⁵-phi³³ ‘bad people’.

The nasal variant aŋ¹³- is prefixed to some color terms: aŋ¹³-mɯʔ²¹ ‘green; a green object’.

6.3 Rawangish ³⁸

(1) Rawang aŋ- (Barnard 1934)

As noted in Benedict 1972: 119:n.330, using data from Barnard 1934, “Nung has a curious nominalizing prefix aŋ-, which may even precede another prefix”: wam ‘to cover’ > aŋ-wam ‘a cover’; məthip ‘to fold’ > aŋ-məthip ‘a fold’; sü ‘to close up/to cork’ > aŋ-sü ‘a stopper’.³⁹

This is only the tip of the iceberg, however. Much more copious data on a similar dialect of Rawang is now available (see next section).

(2) Wadamkhong ʔa²²- and ʔaŋ²²- (Shintani 2014b)

Shintani (2014b: ix) describes Wadamkhong as “one of the Rawangish languages spoken in the Phutao/kam²²di⁴² region of the Tay Cultural Area”. This language features two descendants of the PTB *a- prefix: an open-syllable variant ʔa²²- and a nasal variant ʔaŋ²²-. Both occur before nouns as well as verbs, although ʔa²²- seems to be much more common, overwhelmingly so with respect to kinship terms. The nasal version of the prefix

³⁸ LaPolla explains (p.c., 2017) that “Nungish” was a term innovated in Barnard 1934, and that “Rawangish” is far preferable as a general term for this branch of TB.

³⁹ Benedict changed Barnard’s original symbol /ă/for the unstressed central vowel to “ə”.

---

<table>
<thead>
<tr>
<th>PTB</th>
<th>Lahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘deaf’</td>
<td>*baŋ_pɔ̄</td>
</tr>
<tr>
<td>‘drink’</td>
<td>*mdaŋ_dɔ̀</td>
</tr>
<tr>
<td>‘old’</td>
<td>*maŋ_mɔ̀</td>
</tr>
<tr>
<td>‘rice (cooked)’</td>
<td>*haŋ_ɔ̄</td>
</tr>
<tr>
<td>‘see’</td>
<td>*mraŋ_mɔ̀</td>
</tr>
<tr>
<td>‘study’</td>
<td>*mdzaŋ_jɔ̀</td>
</tr>
<tr>
<td>‘word’</td>
<td>*daŋ_tɔ̂</td>
</tr>
<tr>
<td>‘you’</td>
<td>*naŋ_nɔ̀</td>
</tr>
</tbody>
</table>

---
has a further variant under a different tone, \(\tilde{a}n\)\(^{42}\), which functions as the 3rd person pronoun in the language.

(A) The \(\tilde{a}\)\(^{22}\)-allofam

This variant is somewhat more common before verbs (about 66 examples) than nouns (about 47 examples).

(1) With nouns

The nouns that take this prefix are a miscellaneous lot, but among them it is worth mentioning the following categories:

(i) Animal names

\(\tilde{a}^{22}\)-lo\(^{42}\) 'buffalo'
\(\tilde{a}^{22}\)-phu\(^{44}\) 'owl'
\(\tilde{a}^{22}\)-joq\(^{44}\) 'parrot'
\(\tilde{a}^{22}\)-jit\(^{22}\) 'tick'
\(\tilde{a}^{22}\)-jita\(^{44}\)-la\(^{44}\) 'hair'
\(\tilde{a}^{22}\)-jit\(^{22}\)-go\(^{44}\) 'head'

(ii) Body parts

\(\tilde{a}^{22}\)-na\(^{42}\) 'corpse'
\(\tilde{a}^{22}\)-na\(^{42}\) 'ear'
\(\tilde{a}^{22}\)-me\(^{42}\) 'eye'
\(\tilde{a}^{22}\)-ni\(^{44}\) 'hair'
\(\tilde{a}^{22}\)-ni\(^{44}\) 'eye'

(iii) Plants and natural objects

\(\tilde{a}^{22}\)-no\(^{42}\) 'bean'
\(\tilde{a}^{22}\)-dzap\(^{42}\)-thu\(^{42}\) 'camphor tree'
\(\tilde{a}^{22}\)-dzi\(^{42}\)-thu\(^{42}\) 'flax (Indian)'
\(\tilde{a}^{22}\)-dzap\(^{42}\)-gi\(^{44}\) 'pepper (black)'
\(\tilde{a}^{22}\)-lu\(^{44}\) 'potato'
\(\tilde{a}^{22}\)-xu\(^{44}\) 'thorn'
\(\tilde{a}^{22}\)-joq\(^{44}\)-khan\(^{22}\)-ja\(^{42}\) 'vegetables'

(iv) Numerals

\(\tilde{a}^{22}\)-ni\(^{44}\) 'two'
\(\tilde{a}^{22}\)-sam\(^{42}\) 'three'
\(\tilde{a}^{22}\)-bi\(^{42}\) 'four'
\(\tilde{a}^{22}\)-sar\(^{4}\) 'eighty'

(v) Nominalized verbs

As in Barnard's data cited by Benedict, there is an example of this prefix being used to nominalize a verb: \(\tilde{a}^{22}\)-khu\(^{22}\) 'thief' < khu\(^{22}\) 'steal'.

(vi) Kinship terms

A stronghold of this prefix is in kinship terms:

\(\tilde{a}^{22}\)-nam\(^{22}\) 'elder sister'
\(\tilde{a}^{22}\)-phe\(^{42}\) 'father'
\(\tilde{a}^{22}\)-me\(^{42}\) 'mother'
\(\tilde{a}^{22}\)-khan\(^{42}\) 'mother’s father'
\(\tilde{a}^{22}\)-thi\(^{42}\) 'mother’s mother'
\(\tilde{a}^{22}\)-khu\(^{42}\) 'mother’s brother'

---

40) This word, a loan from Indic, via Burmese \(\tilde{a}\)-lû, shows that the originally fully syllabic first element (cf. Skt. and Pali \(\tilde{a}\)) has been identified with the native Wadamkhong prefix \(\tilde{a}\)\(^{22}\)- that occurs in many other plant names.
(2) With verbs

This prefix occurs with dozens of verbs in Shintani’s data, both transitive and intransitive (I counted about 82 of them). Here is a fair sample:41)

- ‘beautiful’ ʔa²²-nap⁴²
- ‘melt’ ʔa²²-joŋ⁴²
- ‘cheat/lie’ ʔa²²-ja⁴²
- ‘peel off (paint)’ ʔa²²-chaʔ⁴²
- ‘cough’ ʔa²²-xol⁴²
- ‘reach’ ʔa²²-lan⁴⁴
- ‘drink’ ʔa²²-ʔe²²
- ‘respect’ ʔa²²-phə⁴⁴
- ‘feel’ ʔa²²-sam⁴⁴
- ‘sneeze’ ʔa²²-thi⁴⁴
- ‘frightened’ ʔa²²-nan⁴⁴
- ‘stumble’ ʔa²²-ʔa²²⁴⁴
- ‘high/tall’ ʔa²²-jaŋ⁴⁴
- ‘submerge’ ʔa²²-ʔa²²⁴⁴
- ‘light (weight)’ ʔa²²-ʔaŋ⁴⁴
- ‘tie (score)’ ʔa²²-ra⁴⁴
- ‘low’ ʔa²²-ʔaŋ⁴⁴
- ‘wake up’ ʔa²²-sat⁴⁴
- ‘meet with’ ʔa²²-ʔaŋ⁴⁴
- ‘wither’ ʔa²²-ʔa²²⁴⁴

(B) The ʔaŋ⁴⁴- allofam

As a prefix, this variant is much less common than the preceding one, although it occurs with both nominal and verbal roots.

(1) With nouns

This prefix occurs before about 16 nouns in Shintani’s data, including the following:

- ‘flesh’ ʔaŋ⁴⁴-ɕa²²
- ‘page’ ʔaŋ⁴⁴-ʔa⁴⁴
- ‘host’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘powder’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘kind/species’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘seed’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘line’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘stem’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘nutshell’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘smell/odor’ ʔaŋ⁴⁴-ʔaŋ⁴⁴

In addition, this variant occurs with a few kinship terms:

- ‘daughter’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘relatives’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘daugher’s husband’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘son’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘husband’s sibling’ ʔaŋ⁴⁴-ʔaŋ⁴⁴
- ‘son’s wife’ ʔaŋ⁴⁴-ʔaŋ⁴⁴

41) Shintani cites all verbs with the particle ʔe²², no doubt cognate with the Lahu nominalizer ve (< PTB *way), but this has been omitted from our list.
42) This word is also used for ‘elder brother’s wife’ and ‘wife’s elder sister’.
(2) With verbs

This prefix is relatively quite rare before verb roots, with only about 8 apparent examples (most of them intransitive or stative verbs):

- ‘congeal’ ʔaŋ²²-chaŋ⁴²
- ‘round’ ʔaŋ²²-khwaŋ²²
- ‘fresh (food)’ ʔaŋ²²-car⁴⁴ ʔi¹²
- ‘sprout from’ ʔaŋ²²-ma²²-tšuŋ ʔa²²
- ‘hatch’ ʔaŋ²²-tšal⁴²-kol²² ʔo²²
- ‘strain liquid’ ʔaŋ²²-tshe⁴²-lu⁴²
- ‘new’ ʔaŋ²²-tšar⁴² ʔi⁴²
- ‘thick/viscous’ ʔaŋ²²-khe⁴² ʔi⁴²

(3) With adverbials

This prefix also occurs with a number of adverbial expressions:

- ‘certainly/really’ ʔaŋ²²-chɯŋ⁴⁴
- ‘often’ ʔaŋ²²-khat²²

(4) As an independent pronoun (under a different tone)

In addition to its function as a prefix, a tonal variant ʔaŋ⁴² also occurs by itself as the Wadamkhong 3rd person pronoun, ‘he/she’, ‘his/her’:

<table>
<thead>
<tr>
<th>ʔaŋ⁴²</th>
<th>ne²²-phaŋ ²²</th>
<th>di²²</th>
<th>da²²</th>
<th>ʔe²²</th>
</tr>
</thead>
<tbody>
<tr>
<td>3p</td>
<td>later</td>
<td>come</td>
<td>FUT</td>
<td>NOM</td>
</tr>
</tbody>
</table>
| ‘S/he will come later.’

<table>
<thead>
<tr>
<th>ʔaŋ⁴²</th>
<th>ʔaŋ²²-khat²²</th>
<th>ʔaŋ²²-khat²²</th>
<th>di²²</th>
<th>ʔe²²</th>
</tr>
</thead>
<tbody>
<tr>
<td>3p</td>
<td>often</td>
<td>often</td>
<td>come</td>
<td>NOM</td>
</tr>
</tbody>
</table>
| ‘S/he often comes here.’

<table>
<thead>
<tr>
<th>ʔaŋ⁴²</th>
<th>ʔaŋ²²-chuŋ⁴⁴</th>
<th>loʔ</th>
<th>da²²</th>
<th>ʔe²²</th>
</tr>
</thead>
<tbody>
<tr>
<td>3p</td>
<td>certainly</td>
<td>come</td>
<td>FUT</td>
<td>NOM</td>
</tr>
</tbody>
</table>
| ‘S/he will certainly come.’

As the last two examples show, the independent pronoun ʔaŋ⁴² may precede prefixal ʔaŋ²²- in the same sentence. This is also true when pronominal ʔaŋ⁴² is being used in a genitive construction (no genitive particle is apparently required when the possessor is a pronoun, as in Lahu):

<table>
<thead>
<tr>
<th>ʔaŋ⁴²</th>
<th>ʔaŋ²²-tšar⁴²</th>
</tr>
</thead>
</table>
| ‘his/her son’

6.4 Asakian (Luish)

Huziwara (p.c., 2017) notes that the *a- prefix usually appears in Cak as ʔa- or ʔá-, but it is often unstressed to ʔə- or ʔə́-. However it is also attested as ʔaŋ- in three bodypart terms: ʔaŋ-si ‘mouth’, ʔaŋ-hvu ‘palate’, ʔaŋ-siŋ ‘liver’.

43) The morphemic analysis of ‘hatch’, ‘sprout from’, and ‘strain’ is uncertain.
6.5 Mikir (Karbi)

This language of NE India, called Mikir in previous literature (see Grüssner 1978), but now preferably called by the autonym Karbi, stands somewhat outside the Kuki-Chin group, and seems to have a special relationship with Meithei. Mikir has two different prefixes, **ang-** and **ing-**, which both descend from a nasal variant of our PTB *ʔa-* prefix, in a manner very reminiscent of Lotha (above V.5). As with Lotha, I am assuming that the **ing-** variant descends from a prototype like *yaŋ*-.*44*

The regular Mikir reflex of *-a* is –o, (HPTB: 166) as in Lotha, while both the Mikir and Lotha reflexes of *-aŋ* are -aŋ. This holds for both the prefixal and syllable-final positions.

(1) *-aŋ > Mikir –aŋ (syllable-final)\(^{45}\)

<table>
<thead>
<tr>
<th>PTB</th>
<th>Mikir</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘light (weight)’</td>
<td>*r-yaŋ</td>
</tr>
<tr>
<td>‘morning’</td>
<td>*b-raŋ</td>
</tr>
<tr>
<td>‘you’</td>
<td>*naŋ</td>
</tr>
</tbody>
</table>

\(^{44}\) See below, and HPTB: 262-3 and 119, n. 87.

\(^{45}\) There are two examples (both are variants of the same etymon), where PTB *-aŋ > Mikir –eŋ* (see HPTB: 262):

<table>
<thead>
<tr>
<th>PTB</th>
<th>Mikir</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘cold’</td>
<td>*graŋ</td>
</tr>
<tr>
<td>‘freeze/congeal’</td>
<td>*глаŋ</td>
</tr>
</tbody>
</table>

But there are no examples of prefixal eŋ- in Mikir (none in Walker 1925).
‘beg/importune’ ang-thok
‘chaste/faithful’ ang-thik
‘glean’ ang-o
‘naked/bare’ ang-se

(2) Mikir also has a simple a- prefix, which usually functions as a genitive element in compounds: mek a-reng ‘eyelid’, but also occurs before a certain number of nominal roots (e.g. a-ju ‘ore/alloy’, a-li ‘road’, a-pi ‘animal’, a-so ‘child’), as well as in a number of adverbials (e.g. a-boi a-boi ‘repeatedly’, a-lom a-lom ‘id.’, a-joj a-roi ‘mutual/sharing’, a-sap-sap ‘little by little’).

Interestingly, the nasal-finalled prefix ang- can also be used in this genitival function. Compare, e.g. oso a-hem ‘placenta’ (“child its-house”) and mék ang-sum ‘eyelash’ (“eye-its-hair”).

(3) *yaŋ- > Mikir in-

The Mikir prefix ing- is even more frequent than ang-, and occurs before both nouns and verbs, with the pre-verbal occurrences being considerably more numerous.

(A) Before nouns (including many body-parts and animals)

‘beard’ ing-mum ‘liver/heart’ ing-thin
‘caterpillar’ ing-ki ‘lung’ ing-phor
‘clitoris’ ing-teng ‘mongoose’ ing-ren
‘elephant’ ing-nar ‘mouth’ ing-ho
‘forest’ ing-nam ‘neck’ ing-phun
‘hair (body)’ ing-mi ‘saliva’ ing-kroy
‘heart’ ing-si ‘salt’ ing-ti
‘iron’ ing-chin ‘sweat’ ing-i
‘leech (land)’ ing-phat ‘thorn’ ing-su
‘leech (water)’ ing-lit ‘thunder’ ing-der

(B) Before verbs

I counted around 100 verbs (both active and stative) with this prefix in Walker 1925. Here are some of the especially interesting ones, divided up by the position of articulation of the root-initial:

(i) Before velars
‘gape/yawn’ ing-ko
‘snore’ ing-ngar
‘stinking’ ing-krin
‘surround’ ing-kai
(ii) Before palatals
‘absorb/suck up’  ing-jup (≠ ing-sip)
‘beautiful’  ing-jang
‘demented’  ing-cham
‘rebuke/disparage’  ing-chek

(iii) Before dentals
‘burn’  ing-dak  ‘peck/bite’  ing-thok
‘fat/sleek’  ing-thu  ‘shallow/thin’  ing-dei
‘itchy’  ing-thak  ‘tough’  ing-nep
‘laugh’  ing-nek  ‘wipe’  ing-thi

(iv) Before labials
‘burst’  ing-bup  ‘open/bloom’  ing-pu
‘fence off’  ing-pai  ‘run’  ing-plong
‘fly around’  ing-vei  ‘swell up’  ing-bop

(v) Before liquids
‘afraid’  ing-ring  ‘roar (elephant)’  ing-rong
‘drunk’  ing-ri  ‘sink/submerge’  ing-lum ~ ing-lim
‘float’  ing-lang  ‘slippery’  ing-lit
‘lick’  ing-lek  ‘winnow’  ing-rap

(vi) Before s-
‘absorb/suck’  ing-sip (≠ ing-jup)
‘cold/peaceful’  ing-sam
‘comb/brush hair’  ing-sok
‘strain’  ing-sir

(vii) Before vowels or laryngeals
‘bark (dog)/growl’  ing-u
‘do/make’  ing-hoi
‘slender/fine’  ing-ar
‘steal’  ing-hu
6.6 Lotha and Mikir prefixal variation compared

There are many cases of variation between Mikir ang- and ing-:

- ‘body hair’ ang-mi ~ ing-mi
- ‘heap/pile’ ang-som ~ ing-som
- ‘liver/mind’ ang-thin ~ ing-thin
- ‘root’ ang-kur ~ ing-kur
- ‘rust’ ang-ru ~ ing-ru
- ‘smell’ ang-nim ~ ing-nim
- ‘snore’ a-ngar\(^{46}\) ~ ing-ngar
- ‘tusk/eyetooth’ ang-ni ~ ing-ni

I now think that this vocalic alternation reflects two variants of the same prefix: *ang- > Mk. ang-, while *yaŋ- > Mk. iŋ-. One could thus set up the prefix for proto-Mikir as *(y)aŋ-.\(^{47}\)

Similarly, the Lotha variation between the o- and the e- prefixes\(^{48}\) may be said to derive from *(y)a-, with the palatalization deemed to be secondary.

Thus a good intermediate reconstruction of the prefix based on the Mikir and Lotha evidence would be a formula like *(y)a(ŋ)-.

Summarizing the origins of the Mikir and Lotha prefixes:

<table>
<thead>
<tr>
<th>PTB</th>
<th>Mikir</th>
<th>Lotha</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ʔaŋ-</td>
<td>aŋ-</td>
<td>—</td>
</tr>
<tr>
<td>*yaŋ-</td>
<td>iŋ-</td>
<td>—</td>
</tr>
<tr>
<td>*ʔa-</td>
<td>a-</td>
<td>o-</td>
</tr>
<tr>
<td>*ya-</td>
<td>—</td>
<td>e-</td>
</tr>
</tbody>
</table>

Other relevant correspondences between Mikir and Lotha:

- *a ~ -o ~ -o
- *aŋ ~ -aŋ ~ -aŋ\(^{49}\)
- *ya ~ -yo\(^{50}\) (?)
- *iŋ ~ -iŋ ~ -yəŋ\(^{51}\)
- *yaŋ ~ -ek\(^{52}\) ~ -yek\(^{53}\)

\(^{46}\) One may assume an underlying form *ang-ngar, simplified by haplology.

\(^{47}\) Impressionistically it seems that in parts of the Indo-Aryan speech area there is a tendency to insert a prothetic y- before English (and other?) words beginning with a vowel. I would appreciate more information on this point.

\(^{48}\) As in Mikir, sometimes this variation occurs before the same root, e.g. Lotha o-ni ~ e-ni ‘two’.

\(^{49}\) E.g. ‘deaf’ *baŋ > Lotha e-no pang-a (e-no ‘ear’); cf. Lahu nā-ɲ paŋ.

\(^{50}\) E.g. ‘bee’ *bya > Mk. pij-o (Walker).

\(^{51}\) E.g. ‘name’ *r-miŋ > Lotha o-myəŋ; ‘full’ *biŋ > Lotha phyaŋ-a.

\(^{52}\) E.g. ‘lick’ *m-lyak > Mk. ing-lek.

\(^{53}\) E.g. ‘eye’ *s-myak > Lotha o-mhyek.
It is worth noting that *yaŋ > Mikir iŋ-, while *-iŋ > Lotha *-yaŋ !

VII. From nasal to stop final

Lahu provides evidence for a secondary variant with *stopped final,\(^{54}\) namely ā-< *ʔak-. The Lahu high-rising tone /ʔ/ is regular here, due to “glottal dissimilation” in a syllable with both a glottal initial and a glottal final (see Matisoff 1970). The alternation between homorganic nasal and stopped finals is one of the most pervasive variational patterns in TB and Sino-Tibetan in general (see Matisoff 1978: 23–25, and HPTB: 516–525).

The Lahu ā- prefix is nowhere near as common as ɔ̀-), but it does occur in about 70 words (13 pages of my Lahu dictionary). Some examples:

<table>
<thead>
<tr>
<th>Lahu</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>banana</code></td>
<td>á-pод <code>jewsharp</code></td>
</tr>
<tr>
<td><code>blanket</code></td>
<td>á-bóʔ</td>
</tr>
<tr>
<td><code>chili pepper</code></td>
<td>á-phèʔ</td>
</tr>
<tr>
<td><code>cucumber</code></td>
<td>á-phè</td>
</tr>
<tr>
<td><code>goat</code></td>
<td>á-chèʔ</td>
</tr>
<tr>
<td><code>hawk/kite</code></td>
<td>á-cè</td>
</tr>
</tbody>
</table>

There are a few cases of roots which can take either prefix:

<table>
<thead>
<tr>
<th>Lahu</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɔ̀-câʔ ~ á-câʔ</td>
<td><code>rope/strap</code></td>
</tr>
<tr>
<td>ɔ̀-chû ~ á-chû (also í-chû)</td>
<td><code>thorn</code></td>
</tr>
<tr>
<td>ɔ̀-khê ~ á-khê</td>
<td><code>thread</code></td>
</tr>
</tbody>
</table>

This prefix is actually semi-productive, as witness its use in a recent loanword:

`tape (for recording)` | á-thêʔ

VIII. With apheresis of the prefixal vowel: Written Tibetan and Proto-Lolo-Burmese

One of the most interesting languages from the viewpoint of the interrelationship between glottality and nasality is Tibetan. In particular there is the much-discussed problem of the “mysterious” WT letter known as a-chung, lit. “little a”.\(^{55}\) Various authors have symbolized it in many different ways:

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54) See my note in Benedict 1972 (p. 121, n.335) and Matisoff 2003: 108.
Jäschke (1881/1958): ˳ pre-consonantly; _MAC prevocally
Bell (1920/1965) does not transcribe it at all in pre-consonantal position
Wolfenden (1929): ˁ
Miller (1968): ḥ
Matisoff (1970; 2003): ḥ
Benedict (1972): apostrophe ’
Hu T’an (1979): ɦ
J. Sun (1986): ẖ
Beyer (1992): small upper-case ɴ
Hill (2005): v; (2009) ḡ

A-chung occurs in three structural positions in the WT syllable: (1) initially before a vowel; (2) pre-consonantly; (3) post-vocally. Its function and phonetic value in each position is quite different, to the point where some scholars (Coblin 2002, Sun 1986, Sprigg 1987) have maintained that a-chung was merely an orthographic device, with no phonetic value per se. It is my contention, however, that (1) and (2) are ultimately relatable to each other phonetically, whereas (3) is indeed merely an orthographic device.

Returning to the morphophonemic overview of the “a-prefix” (above, Section II), I assume that (1) the original PTB form was *ʔa-; (2) an unstressed variant [ʔə̆]- developed at an early date; (3) a nasalized “rhinoglottophiliac” pronunciation [ʔə̃]- or [ə̃]- somehow emerged. Tibetan seems to have gone one step further: (4) this unstressed nasalized vowel dropped (underwent apheresis) in pre-consonantal position, leaving only the historically secondary nasalization [ ̃ ].

This account presupposes a concomitant change in syllabic structure, from fully dissyllabic sequences of prefix plus root (1), to sesquisyllabic forms (2 and 3), to monosyllabic ones (4).

8.1 A-chung initially before a vowel: a glottal feature

In this prevocalic position, a-chung stands in graphic contrast with another letter known as a-chen (lit. “big a”). Despite the view rather confusingly espoused by Jäschke that a-chung stood for “smooth vocalic ingress” or “vowel absolute” or “pure zero vocalization”, while a-chen represented initial glottal stop, I consider these two letters to have stood for stressed (a-chen) vs. unstressed (a-chung) variants of the same prefix.

56) This seems quite analogous to the Jingpho phenomenon (Section III) whereby the kinship prefix *ʔa- lost its vowel before sonorant initials, and was realized as preglottalization of that initial.

57) Bell (1920: ix) seems to have the opposite interpretation from Jäschke: “When a vowel is initial, either a-chen or a-chung is used as its base. The difference in pronunciation of these two is that the throat is opened for a-chen and kept closed for a-chung.”

58) I have long wondered whether the “chung” (‘little’) could mean ‘unstressed’. Cf. the WT compound chun-rtags (Mod. Tib. cūndāa) ‘the less-than sign (>)’ (Goldstein 2001: 369-70) [rtags ‘mark, sign, token’]. This Tibetan adjective can also mean ‘weak’, as in the expression translated as “bullying the weak but fearing the strong” (Goldstein, loc. cit.).
Evidence for a glottal feature is clearest in this pre-vocalic position, where a-chung is realized in some dialects as [ʔ] (Western dialects like Ladakhi and Lahoul), and in others (e.g. Khams) as [x] or [ɣ], or zero. Hill (2005, 2009) believes that before vowels or -w- (and also post-vocally) it stood for a voiced fricative [ɣ]. Sun (2003), quoted in Hill (2005: 123), revised his interpretation of pre-vocalic a-chung from “zero” to something approximating Hill’s view, i.e. a voiced “guttural spirant”, either [ɦ] or [ɣ] or [ʁ].

Benedict (1972: 123) also recognizes both a stressed and an unstressed variant of the prefix, the former occurring with kin terms, and the latter occurring as a verbal prefix where it often interchanges with prefixed m- or b-. The interpretation of a-chen as indicating the stressed variant is supported by the fact that it occurs prefixally in many kinship terms (Jäschke 603 ff.):

<table>
<thead>
<tr>
<th>a-sru</th>
<th>‘aunt’</th>
<th>a-khu</th>
<th>‘father’s brother’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-ne</td>
<td>‘father’s sister; grand-aunt’</td>
<td>a-phyi</td>
<td>‘grandmother’</td>
</tr>
<tr>
<td>a-baŋ</td>
<td>‘husband of parent’s sister’</td>
<td>a-jo</td>
<td>‘man’s elder brother’</td>
</tr>
<tr>
<td>a-ma</td>
<td>‘mother’</td>
<td>a-zaŋ</td>
<td>‘mother’s brother’</td>
</tr>
<tr>
<td>a-che</td>
<td>‘woman’s elder sister’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Sun’s Amdo dialect, however, the prevocalic a-chung of Central Tibetan merged with a-chen to become [ʔ]. In other Amo dialects (e.g. Golok), the modern reflex of Central Tibetan a-chung has become a voiced uvular or velar spirant. Hill (2005: 109) maintains there are no strong arguments for analyzing a-chen as [ʔ] as opposed to vocalic onset. He is willing to admit that perhaps all vowel-initial words in Tibetan had subphonemic glottal stop (as in German), but he feels that a-chen “certainly does not represent a glottal stop”. On the other hand, Beyer (1992: 43) claims that “glottal stop is, of course, phonemic in Tibetan, as in such minimal pairs as og ‘underpart’ (with a-chung: our ḥog) and ʔog (with a-chen) ‘neck’.”

A crucial example in this connection, where WT has prevocalic a-chung, is this very etymon for ‘below/under’: WT ḥog; Lahu h5(n); WB ʔauk; Jg. lawuʔ; Bisu ʔaŋ-ʔɔ́ [HPTB: 116]

As I demonstrated long ago, the Lahu high-rising tone /’/ is the result of two “glottal incidents” in the pre-Lahu syllable: PLB *(ʔ)ok > Pre-Lahu *ʔɔ. My explanation of the Lahu high-rising tone here works equally well regardless of what phonetic interpretation is.

59) Jäschke represents a-chen by an apostrophe (as opposed to Benedict, who uses the apostrophe for a-chung). Hill represents a-chen as q-, and points out that the terms a-chung and a-chen appear never to have been used by Tibetan grammarians themselves (2005: 108).

60) Solnit points out (p.c., 2017) that this is reminiscent of the realization of Mandarin zero-initial as “a frictionless velar or uvular voiced consonant” (Chao 1968: 20), or as ɣ- “for a very small minority of speakers”.

61) Repeated from 3.11, above. Cf. stressed Lahu a· (< *ʔa·) in kinship terms vs. unstressed ʔ- (< *ʔaŋ-) elsewhere (above, Section VI).

62) See Matisoff 1970. I would now like to reconstruct this root at the PTB level as *hwak, though that is irrelevant to the present discussion.
given to pre-vocalic *a-chung* as opposed to *a-chen*. It makes little difference which (if either) of the two represented “smooth vocalic ingress” or which one represented glottal stop. A “glottal incident” is defined as “h, ⊕, or zero initial”. The Lahu form is dispositive here, since it has no initial glottal stop but has developed the high-rising tone in this word. Note also the optional rhinoglottophilic nasalization in the Lahu form with the low vowel /ɒ/.

8.2 *A-chung* before a voiced or aspirated consonant: a nasal feature

In nDzorge Amdo Tibetan, the evidence is clear in pre-consonantal position, where *a-chung* represents prenasalization of the root-initial.63

Like the ordinary nasal prefix *m-*, *a-chung* occurs only before aspirates and sonants, never before surds. In the Amdo dialect studied by Sun, these two WT nasal onsets were merged to homorganic prenasalization of the root-initial.

WT ʰ- > Khams ⃗n-/-velars

n-/-dentals, palatals, sibilants
m-/(simple) labials

A few examples from Sun 1986:

<table>
<thead>
<tr>
<th>Written Tibetan</th>
<th>nDzorge Amdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘drink’</td>
<td>ṭthuŋ-ba</td>
</tr>
<tr>
<td>‘insect/worm’</td>
<td>ḥbu</td>
</tr>
<tr>
<td>‘sit (pres.)’</td>
<td>ḥdug-pa</td>
</tr>
<tr>
<td>‘small wild dog’</td>
<td>ḥphar-ba</td>
</tr>
<tr>
<td>‘wild yak’</td>
<td>ḥbroŋ</td>
</tr>
<tr>
<td>‘arrow’</td>
<td>mda</td>
</tr>
<tr>
<td>‘kidney’</td>
<td>mkhal-ma</td>
</tr>
<tr>
<td>‘neck’</td>
<td>mgul</td>
</tr>
</tbody>
</table>

There are also cases where the WT form lacks a prefix, but nDzorge has a prenasalized initial:

| ‘house’         | khaŋ-pa      | nkhaŋ-wæ |

---

63) In other words, both rhinoglottophilia and glottal dissimilation work equally well, whether the initial was ⊕ or zero.

64) This prenasalization is naturally homorganic with the root-initial, but Sun (1986) wisely writes it abstractly as a superscript “n” before all initials (here transcribed in italic rather than superscript).
Sun believes that preconsonantal *a-chung* was meant to stand for prenasalization from the very beginning of the Tibetan script. The question then arises as to why the inventors of the Tibetan script did not use a nasal symbol to represent it. Sun’s response is that a prenasalized consonant must be at the same place of articulation as the oral phase, since they are inseparable units, such that native speakers can hardly be aware that they have two components. Sun makes the excellent point that *a-chung* represents absence, since it seems never to have had any distinct phonetic value. Before a consonant, all that it was called upon to do was indicate that the prenasalized series was different from the non-prenasalized one.

Other evidence strongly confirms the nasality of preconsonantal *a-chung*:

- In Central and Western dialects of Tibetan, in compounds where the 2nd element begins with *a-chung*, the latter is sometimes pronounced with a nasal onset:
  - dge-ḥdun ‘priesthood’ > Ladakhi/Lahoul gen-dun (Jäschke: 85)
  - kha-ḥdon ‘written prayer’ > Lhasa khan-dön (Bell: 372)
  - sku-ḥdar skyon-pa ‘shudder’ > Lhasa kün-dar kyom-pa (Bell: 387)
Some more examples of this are cited in Wolfenden (p.32, note.1):
  - bka-ḥgyur ‘word of Buddha’ > kan-ḥgyur (Jäschke: 38 calls this pronunciation ‘common’)
  - bka-ḥbum ‘the 100,000 precepts’ (book) > kam-ḥbum (a ‘vulgar pronunciation’ according to Jäschke, loc. cit.)

- In disyllabic loans from Sanskrit containing a nasal plus stop, the 2nd syllable is sometimes written in Tibetan with initial *a-chung* (Wolfenden, p.32, n.1) in order to indicate the nasal final of the Sanskrit first syllable:
  - Skt. khaṇḍa ‘candy/treacle’ > WT kha-ḥda (see Jäschke: 38)
  - Skt. bimbi ‘small lumps of clay’ > WT ḫbi-ḥbi (see Jäschke: 392)
Jäschke (p. xv) decries the nasal development of *a-chung*, attributing it to human laziness (cf. Ohala’s principle of least effort): “It is not difficult to understand, how, if one is careless about closing the nasal passage, a nasal articulation of this prefix can easily grow common.”

- There are examples of alternation between ḡ- and m- before the same root (see HEAD, NECK (1), NECK (2), in 8.6, below).
- Most importantly, there are good correspondences between words with WT *a-chung* and Proto-Lolo-Burmese cognates with *prenasalized initials.* The Lahu reflexes have voiced initials, a sure indication of an earlier *prenasalized one. A Burmese voiced initial, as in the cognate for ‘this’, is also a frequent (though not certain) indicator of earlier prenasalization.

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65) Sun thus takes issue with both Chang and Chang (1977) and Hu (1979). Chang and Chang held that although *a-chung* did indeed represent prenasalization in Proto-Tibetan, by the time the script was developed those initials were already denasalized in Central Tibetan (upon which the script was based). For Hu, *a-chung* represented a voiced /ɦ/ in preconsonantal position.


67) This point was not made in Matisoff 2003.
So where did this prenasalization come from? As indicated above, it arose from the dropping of the vowel in the unstressed rhinoglotophiliac variant of the *

8.3 A-chung post-vocalically: an orthographic device

Sun (1986: 114) lists the various post-vocalic functions of a-chung, including to transcribe foreign words, onomatopoeic expressions, and vowel length (especially in loans from Sanskrit), and to disambiguate homographs. This latter function is of particular interest:

--In bkah ‘word/speech (hon.)’, the a-chung is merely an orthographic device to indicate that the b- is prefixal, and not the root-initial. Without the a-chung the syllable would be read “bak”, with the “inherent vowel” /a/ inserted after the first consonant.
--In dgah ‘joy’, if there were no final a-chung it would be pronounced “dak”.

8.4 Rhinoglotal coexistence

I long ago cited a-chung as an example of “rhinoglotal coexistence” (1975: 273). A-chung undoubtedly did develop a nasal coarticulation, but I believe that this nasality is diachronically secondary, and that the real distinctive feature of the proto-prefix was glottality (see Matisoff 1970 and 1972a: 16, n. 28).

I thus seem to be in substantial agreement with Hill 2005, who hypothesized that pre-consonantal and pre-vocalic a-chung represent the same phoneme, since the different phonetic values they have in those positions are in complementary distribution. But that is not the only criterion for co-membership in a phoneme. Phonetic similarity must also play a role. My rhinoglotophiliac explanation seems to provide that missing link.

68) Despite the good semantic fit, this correspondence is doubtful, since PTB *-ap regularly becomes Lahu -oʔ.

69) The reviewer points out that WB di does not occur in inscriptions before the mid 17th century, so that its antiquity is in doubt. Perhaps it belonged to the colloquial, non-literary stratum of Burmese.

70) There is a well-known English case that is relevant here. English /h/ occurs only in syllable-initial position, while /ŋ/ appears only in syllable-final position. Yet it would be counter-intuitive to group them into the same phoneme. Hill (2005: 127) tries to use my concept of rhinoglotophilia to make the change from fricatives to nasals more plausible.
8.5 Relationship between a-chung and the WT m- prefix

The fact that we have the WT sequences mn- and mŋ- shows such words to have been sesquisyllabic. Thus forms like mnam-pa ‘have a smell’, mnal-ba ‘sleep’ (resp.), mŋal ‘womb’, mŋon-pa ‘conspicuous/visible’ must have been pronounced [mənam], [mənal], [məŋal], [məŋon]. Both of these prefixes occur only before voiceless aspirated and voiced initials, but not before voiceless unaspirated ones. But m- occurs before nasals, while ḥ- does not. The phonetic difference between the two prefixes is that “mC” represented a sesquisyllabic sequence [məC...], whereas “hapus” represented a monosyllabic prenasalized syllable [nC...].

In WT dictionaries the prefixes occur in the order g-, d-, b-, m-, ḥ-, r-, l-, s-, br-, bs-. The fact that m- and ḥ- occur consecutively implies that they share a phonetic feature. Wolfenden in fact would claim that the three consecutive prefixes b-, m-, ḥ- are all morphophonemically related, although this is irrelevant to our present concerns.

8.6 Pre-verbal vs. pre-nominal use of the WT prefixes

For Wolfenden (1929: 15–16) the Tibetan verb is simply a verbal noun, the mere name of a state or action, barely distinguishable at times from the adjective or noun. So in order to express subjective relation, position, or movement with regard to the object, and any necessary conception of time, the archaic language attached “particles” (i.e. prefixes) which were quite external to the root itself.

On the other hand, Wolfenden believed that “The archaic substantive does not appear to have ever originally possessed prefixes... That substantives occur now with prefixes is nothing against this” (p. 50). “What is now the prefix of a substantive is ... often of entirely different origin, representing a root which originally formed with the following word a kind of synonym-compound, with the second member of which it only later became telescoped as a ‘prefix’” (ibid.).

Here are a few interesting examples of the pre-nominal use of a-chung which show variation between a-chung and another prefix, perhaps implying that different compound constituents were reduced to yield the variant forms:

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71) ḥ- is more common before voiced than before aspirated initials. It is more common before verbs than before nouns. It is quite frequent before verbs with velar initials, and before nouns with labial ones.

72) Wolfenden is actually quite specific in assuming an original sesquisyllabicity for WT prefix-plus-root combinations: “prefixed elements lost their vowels, bringing their consonants in direct contact with the root-initial consonant, leading to assimilation because of the dictates of euphony” (p. 12); “It is...certain that originally the prefixes of Tibetan were vocalized” (p. 40); mkhyen ‘know’ appears as ma-khyen in a 9th century document (p. 25).

73) Wolfenden credits Laufer 1916 for this insight with respect to Xixia (Tangut). Much later I coined the term “prefixization” for this phenomenon. See, e.g. Matisoff 2003: 148.
PTB

WT

‘flea’ *s-lay ḥjī-ba ~ lij-ba
‘head’ *m-gaw ḥgo ~ mango
‘neck (1)’ *m-liŋ ḥjīn-pa ~ mjīn-pa
‘neck (2)’ *m-gul × *m-gil ḥgul ~ mgul
‘tadpole’ ḥjoŋj ~ ljoŋ

IX. Correspondences among some prefixal variants

Some random examples of correspondences among our prefixal variants across subgroups of Tibeto-Burman:

Correspondence between WT a-chung and Lotha syllabic nasal

<table>
<thead>
<tr>
<th>WT</th>
<th>Lotha</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḥphen</td>
<td>mpen</td>
</tr>
</tbody>
</table>

Correspondence between WT a-chung and Loloish *ʔəŋ-

<table>
<thead>
<tr>
<th>WT</th>
<th>Loloish</th>
<th>PTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḥbu</td>
<td>Bisu ʔəŋ-baʔ 74) *bəw</td>
<td></td>
</tr>
</tbody>
</table>

Correspondences between WT a-chung and Mikir ing-

<table>
<thead>
<tr>
<th>WT</th>
<th>Mikir</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḥbar-ba</td>
<td>ing-par</td>
</tr>
<tr>
<td>ḥbu-ba</td>
<td>ing-pu</td>
</tr>
<tr>
<td>hjibs-pa</td>
<td>ing-júp ~ ing-sip</td>
</tr>
</tbody>
</table>

Correspondences between WT m- and Loloish *ʔəŋ-

<table>
<thead>
<tr>
<th>WT</th>
<th>Loloish</th>
<th>PTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>mchin-pa</td>
<td>Phunoi ʔā⁵⁵-sin¹¹ *m-sin</td>
<td></td>
</tr>
<tr>
<td>mnam-pa</td>
<td>Bisu ʔəŋ-nam *m-nam</td>
<td></td>
</tr>
</tbody>
</table>

Correspondences between WT m- and Mikir ing-/ang-

<table>
<thead>
<tr>
<th>WT</th>
<th>Mikir</th>
</tr>
</thead>
<tbody>
<tr>
<td>mchin-pa</td>
<td>ang-thin ~ ing-thin</td>
</tr>
<tr>
<td>mnam</td>
<td>ing-nim ~ ang-nim</td>
</tr>
</tbody>
</table>


75) The Lahu word family descending from this etymon includes chɔʔ ‘suck’ and cû ‘milk’, the latter pointing to an earlier *glottalized initial.
Correspondences between PTB *m- and Mikir ing-

<table>
<thead>
<tr>
<th>PTB</th>
<th>Mikir</th>
</tr>
</thead>
<tbody>
<tr>
<td>*m-lyak</td>
<td>ing-lek</td>
</tr>
<tr>
<td>*m-sin</td>
<td>ang-thin ~ ing-thin</td>
</tr>
<tr>
<td>*m-di</td>
<td>ing-ti</td>
</tr>
<tr>
<td>*m-kul</td>
<td>ing-koi</td>
</tr>
</tbody>
</table>

Correspondences between Mikir ing- and Ao me-

<table>
<thead>
<tr>
<th>Mikir</th>
<th>Ao</th>
</tr>
</thead>
<tbody>
<tr>
<td>ing-thak</td>
<td>me-sak</td>
</tr>
<tr>
<td>ing-lek</td>
<td>me-zak</td>
</tr>
<tr>
<td>ing-nim</td>
<td>me-nem</td>
</tr>
</tbody>
</table>

X. Conclusion

I hope to have shown that there is a complex set of issues (morphophonemic, etymological, and semantic) involved in the deceptively simple-looking reconstruction of a PTB prefix *a-.

10.1 Morphophonemic variation

Evidence has been presented that several different variant forms should be reconstructed: stressed vs. non-stressed allomorphs, as well as variants that contain a nasal or a palatal element.

Emphasis was placed on the interrelationship between the suprasegmental features of glottality and nasality.

10.2 Semantic range

Many of the numerous semantic functions which this prefix has developed, including its appearance with kinship terms, personal names, bodyparts, color words, and adjectives, may largely be subsumed under the notion of inalienable possession. More grammaticalized roles, including those of nominalizer, genitivizer, and relativizer, as well as indicator of a 3rd person subject/object or a 3rd person possessor, seem clearly to be later developments.

It must be admitted, however, that in the course of time the semantics of this prefix has been obscured by analogy, so that it now occurs with a random assortment of nouns and even with some action verbs in the various modern languages.

10.3 Chinese cognate

This prefix is also well attested in Chinese, where it appears primarily with proper names, kinship terms, and personal pronouns. Written with the character 阿, it is pronounced /ā/ in Mandarin. Schuessler (2007: 149) gives the following examples of this “vernacular prefix”: ā-mù 阿母 ‘mother’ [Han texts]; ā-nú 阿奴 ‘younger brother’; ā-shuí 阿
‘who’; ā-nǐ 阿你 ‘you’. More examples are to be found in Wu Jingrong et al. (1979: 1): Ā-bāo 阿宝 ‘A-bao’ (name); ā-dà 阿大 ‘the eldest’; ā-gē 阿哥 ‘elder brother’; ā-diē 阿爹 ‘dad’; ā-pó 阿婆 ‘granny’.

Clearly then, this prefix must be reconstructed at the Proto-Sino-Tibetan level.

10.4 Indo-European parallel developments

As already pointed out in Matisoff 1975: 277–278, there is a striking parallel between our PTB *ʔa- prefix and the Proto-Indo-European syllabic nasals reconstructed as *m̩ and *n̩. These PIE syllabic nasals have, wholly or partially, vocalic reflexes in daughter languages. In Sanskrit and Greek the syllabic nasals become short /a/, while in Germanic and Latin the reflex is a short vowel plus nasal consonant: un- in Germanic, and in-, -en, or -em in Latin:

<table>
<thead>
<tr>
<th>PIE</th>
<th>Sanskrit</th>
<th>Greek</th>
<th>Germanic</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘hundred’</td>
<td>*kmtóm</td>
<td>šatam</td>
<td>hekatón</td>
<td>Gm. hundert</td>
</tr>
<tr>
<td>‘ten’</td>
<td>*dekm</td>
<td>dáśa</td>
<td>déka</td>
<td>Gothic taihun</td>
</tr>
<tr>
<td>‘coming (n.)’</td>
<td>*gʷmtí</td>
<td>gatiḥ</td>
<td>basis</td>
<td></td>
</tr>
<tr>
<td>‘neg. prefix’</td>
<td>*n-</td>
<td>a-</td>
<td>a-</td>
<td>Eng. un-</td>
</tr>
<tr>
<td>‘immortal’</td>
<td>*n-mṛto-</td>
<td>âmṛta-</td>
<td>ámbrotos</td>
<td></td>
</tr>
<tr>
<td>‘acc. suffix’</td>
<td>*-m</td>
<td>-a</td>
<td></td>
<td>-em</td>
</tr>
<tr>
<td>‘foot (object)’</td>
<td>*ped-m</td>
<td>poda</td>
<td></td>
<td>pedem</td>
</tr>
</tbody>
</table>

There is a slight difference between the PTB and PIE cases, since for PTB I consider the nasal component of the root to be secondary, whereas in Indo-European the nasal component is viewed as primary, with the vocalic element of the reflexes treated as secondary. This may be something of a distinction without a difference, however, since those PIE syllabic nasals are highly abstract entities, and it is hard to see how they could have been pronounced without a preceding or following vowel.

References


———. 1972b. “Lahu nominalization, relativization, and genitivization.” *Syntax and Semantics* (John