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Morphosemantics of the Proto-Tibeto-Burman *a- prefix:
glottal and nasal complications

(with an Appendix offering analogies with the English preformative a-)

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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.¹ 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. Morphohemic 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- × *ʔǎ- × *ʔaŋ- × *yaŋ- × *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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¹ Previous studies of this prefix include: Laufer 1915; Wolfenden 1929:20, 31-38, 71-73; 80-82, 129-133, 161, 168-170, 185, 188-189, 194-195, 198-199; Benedict 1972: 121-123; Matisoff 2003 (HPTB):104-117.

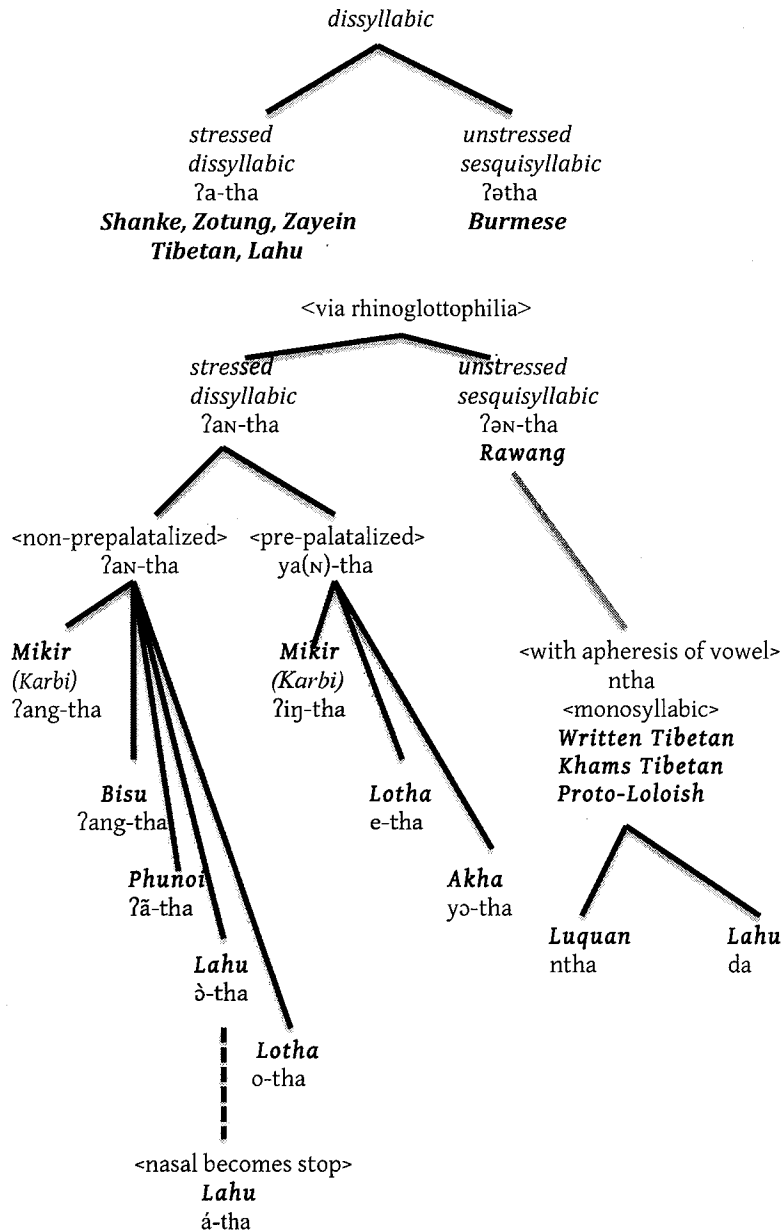


Fig. 1. Putative historical development of the PTB *glottal/nasal prefix

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 *ʔaŋ (stressed)² and *ʔǎ- (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. *ʔaŋ- ~ *yaŋ-).

·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., *ʔaŋ > *ʔak-).³ 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:

(a) 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-phyi ⁵ |
| '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-ʒaŋ |
| 'father's sister' | ʔa-ne | | |

(b) Jingpho

Jingpho has a kinship prefix written as "a-" in earlier sources, but as "ə-" in Maran 1979, later revised to "ʔə-". 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

² Where N 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!' | ʔrát |

(c) Lahu

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

| | | | |
|---------------|-------------|-------------------|-----------------------|
| 'father' | a-pa / ð-pa | 'mother (poetic)' | a-ma / ð-ma |
| 'grandfather' | a-pū / ð-pū | 'older sibling' | a-ví / ð-ví |
| 'grandmother' | a-pi / ð-pi | 'younger sibling' | a-ni / ð-ni |
| 'mother' | a-e / ð-e | 'siblings' | a-ví-a-ni / ð-ví-ð-ni |

3.12 Body-parts

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

3.13 Genitive constructions

Many Himalayish and Kuki-Chin languages use the prefix in genitive constructions before the possessed noun, e.g. Bahing **biŋ ə-tami** 'calf' ("cow its-child"); Lepcha **vi a-so** 'blood vessel' ("blood its-vessel"); Mikir **kèng 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).

3.14 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' |

3.15 For "phonological bulk" or meaning differentiation

In Lahu **šā** as a monosyllable usually means 'animal/game animal', but in compounds it means 'meat/flesh' (**vàʔ** 'pig', **vàʔ-šā** 'pork'). The prefixed form **ð-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 have in common is the notion of *inalienable possession*.⁹

3.2 Before verbs, especially stative ones

⁷ See my note 335 (p.121) in Benedict 1972.

⁸ These are usually reduced forms of the independent personal pronouns. See HPTB:89.

⁹ This concept has been translated into Chinese as 不可让渡所有 *bù kě ràng dù suǒyǒu*, pronounced *hukazyootosoyuu* in Japanese.

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,¹⁰ e.g. Written Burmese (WB) **hmañ** 'ripe', **ʔəhmañ** 'ripeness'; **lup** 'to work', **ʔəlup** 'work' (n.); **wa** 'fat/full', **ʔəwa** 'fatness'.¹¹ In Lahu, a similar role is played by the prefix **ð-** (< *ʔaŋ-; below VI): **chu** 'be fat', **ð-chu** 'fat/grease'; **thíʔ** 'wrap', **ð-thíʔ** 'package'; **mɛ** 'be named', **ð-mɛ** 'a name'.

Such nominalized verbs often occur as cognate objects, e.g. Lahu **ð-thíʔ thíʔ 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-**, **ʔ-** 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' [hâaN], **hèɛ** 'parade' [hèɛN], **ʔaw** 'take' [ʔawN], 'leave' **ʔðək** [ʔðəkN]

(Lahu) **ð** 'four' [ðN], **ɔ** 'bend' [ɔN], **hɔ** 'elephant' [hɔN], **hðʔ** 'wrap up' [hðNʔ]¹⁷

¹⁰ For an early discussion of the interrelationship among genitive, relative, and nominalized forms, see Matisoff 1972b.

¹¹ See Okell 1969:243 ff.

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 hthag-pa** 'weave a web' (the noun **thags** is prefixless).

¹³ See Chen 1973.

¹⁴ See Hyman 1972, Williamson 1973.

¹⁵ See Leslau 1972, Hetzron 1973.

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.

(Yiddish) **yankev** 'Jacob, James' < Heb. **yaʔakov**; **manse** 'deed/story' < Heb. **maʔase**

(British English) *art* [ã:t], *hour* [ã:ə], *half* [hã:f], *heart* [hã:t].

In the 1970's, partly stimulated by rhinoglottophilic 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?¹⁸ 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;¹⁹ (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 rhinoglottophilic 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,²⁰ 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

¹⁸ See, e.g., Ohala 1972, 1974, 1975.

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, Zayen, Zotung). See Sections V and VI.

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.

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) semi-syllabic 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 mə- (sesquisyllabic)
- (c) syllabic nasal homorganic with the root initial
*Jingpho, Ao mb- (dissyllabic)*²²
- (d) glottal stop plus full vowel plus nasal consonant
Bisu ʔaŋ- (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:

| | <i>Written Burmese</i> | <i>Modern Burmese</i> | <i>Lahu</i> |
|--------|------------------------|-----------------------|-------------|
| | -am | -ã | -o |
| 'iron' | sam | θã | šo |

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

²¹ See Matisoff 2003:114.

²² Kurabe (2016:62 ff.) treats both Jingpho words of type (b) [with the mə- 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 ɰ-.

A. *Stressed (disyllabic)*

(1) We have already cited examples of the stressed version of this prefix above (3.11) 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 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*.

(2) *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 ʔa^{33} -.

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 ʔa^{33} -. Unlike the other languages already cited, this prefix occurs almost exclusively with Zayein noun roots (including color terms), but only with a handful of verbal ones.

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

| | | | |
|----------|---------------------------------------|--------------|---------------------------------------|
| 'bone' | ʔa^{33} - ɕui^{55} | 'branch' | ʔa^{33} - phaŋ^{55} |
| 'corner' | ʔa^{33} - cain^{42} | 'egg' | ʔa^{33} - fo^{55} |
| 'foam' | ʔa^{33} - bu^{42} | 'fruit' | ʔa^{33} - θa^{42} |
| 'leaf' | ʔa^{33} - la^{42} | 'liver' | ʔa^{33} - tun^{42} |
| 'poison' | ʔa^{33} - tu^{42} | 'skin' | ʔa^{33} - phi^{42} |
| 'black' | ʔa^{33} - plen^{55} | 'blue/green' | ʔa^{33} - tun^{55} |
| 'red' | ʔa^{33} - li^{33} | 'white' | ʔa^{33} - bu^{55} |
| 'yellow' | ʔa^{33} - baŋ^{55} | | |

B. *Before verbs*

| | |
|------------|--|
| 'lean on' | ʔa^{33} - təŋ^{55} |
| 'listen' | ʔa^{33} - $\text{nə}^{42}\text{thə}^{55}$ |
| 'wait for' | ʔa^{33} - pəuŋ^{33} |

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 $\text{ʔaŋ}^{55}\text{da}^{42}$. However, Solnit explains (p.c., Feb. 2017) that the first syllable is more likely the full morpheme for 'chest': cf. Pa-O sáʔ-ʔàŋ (sáʔ 'heart'), Pekon án-dà (dà is perhaps 'lid, cover'), E. Kayah Li təʔ-θ , Kayaw sə-ʔó < Proto-Karen *ʔaŋ .

There is also evidence that the Zayein prefix ʔa^{33} - had a 3rd person pronominal use, as in the Chin languages: ʔa^{33} - ja^{55} 'he/she; his/her'. (See above 3.14.)

(3) *Shanke* (Shintani 2015a)

According to Shintani, Shanke is a Naga language with pronounced affinities for Jingpho. It is thus presumably in the “Northern Naga” group²³ that forms part of the wider “Sal” (Burling 1983) or the Jingpho/Northern Naga/Barish/Luish supergroup (Matisoff 2013).

The Shanke prefix written ʔa^{33} - 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

(1) Kin terms

| | | | |
|----------------------------|---------------------------------|-------------------|----------------------------------|
| ‘father’s younger brother’ | $\text{ʔa}^{33}\text{-hu}^{53}$ | ‘son’ | $\text{ʔa}^{33}\text{-se}^{53}$ |
| ‘older sister’ | $\text{ʔa}^{33}\text{-ni}^{55}$ | ‘son’s son’ | $\text{ʔa}^{33}\text{-sau}^{53}$ |
| ‘paternal grandmother’ | $\text{ʔa}^{33}\text{-vi}^{33}$ | ‘younger brother’ | $\text{ʔa}^{33}\text{-no}^{55}$ |

(2) Body parts (human and animal)

| | | | |
|---------|------------------------------------|---------|----------------------------------|
| ‘bone’ | $\text{ʔa}^{33}\text{-hru}^{53}$ | ‘skin’ | $\text{ʔa}^{33}\text{-khu}^{33}$ |
| ‘egg’ | $\text{ʔa}^{33}\text{-tai}^{53}$ | ‘tail’ | $\text{ʔa}^{33}\text{-mai}^{33}$ |
| ‘horn’ | $\text{ʔa}^{33}\text{-hraoŋ}^{33}$ | ‘tooth’ | $\text{ʔa}^{33}\text{-vi}^{33}$ |
| ‘liver’ | $\text{ʔa}^{33}\text{-dzən}^{53}$ | ‘wing’ | $\text{ʔa}^{33}\text{-hra}^{55}$ |

(3) Other

| | | | |
|---------|-----------------------------------|----------|----------------------------------|
| ‘above’ | $\text{ʔa}^{33}\text{-tha}^{753}$ | ‘corpse’ | $\text{ʔa}^{33}\text{-məŋ}^{55}$ |
| ‘leaf’ | $\text{ʔa}^{33}\text{-ja}^{53}$ | ‘loom’ | $\text{ʔa}^{33}\text{-ta}^{753}$ |
| ‘name’ | $\text{ʔa}^{33}\text{-məŋ}^{55}$ | ‘one’ | $\text{ʔa}^{33}\text{-ci}^{53}$ |
| ‘three’ | $\text{ʔa}^{33}\text{-dəm}^{33}$ | ‘two’ | $\text{ʔa}^{33}\text{-nai}^{55}$ |

B. Before verbs

(1) Adjectival verbs²⁴

| | | | |
|----------------|-----------------------------------|----------------|-----------------------------------|
| ‘bitter/salty’ | $\text{ʔa}^{33}\text{-khəp}$ | ‘black/dark’ | $\text{ʔa}^{33}\text{-ja}^{753}$ |
| ‘dull’ | $\text{ʔa}^{33}\text{-tau}^{753}$ | ‘hard’ | $\text{ʔa}^{33}\text{-tsin}^{53}$ |
| ‘heavy’ | $\text{ʔa}^{33}\text{-lai}^{753}$ | ‘itchy’ | $\text{ʔa}^{33}\text{-tsət}^{33}$ |
| ‘spicy hot’ | $\text{ʔa}^{33}\text{-dzu}^{53}$ | ‘thin/shallow’ | $\text{ʔa}^{33}\text{-pi}^{753}$ |

(2) Intransitive action verbs²⁵

| | | | |
|------------|-----------------------------------|-----------|-----------------------------------|
| ‘alive’ | $\text{ʔa}^{33}\text{-ta}^{33}$ | ‘die’ | $\text{ʔa}^{33}\text{-dzai}^{55}$ |
| ‘kick’ | $\text{ʔa}^{33}\text{-həp}^{53}$ | ‘rest’ | $\text{ʔa}^{33}\text{-nu}^{55}$ |
| ‘sit’ | $\text{ʔa}^{33}\text{-ŋa}^{55}$ | ‘spit’ | $\text{ʔa}^{33}\text{-tho}^{53}$ |
| ‘swell up’ | $\text{ʔa}^{33}\text{-chəŋ}^{55}$ | ‘wake up’ | $\text{ʔa}^{33}\text{-sam}^{53}$ |

²³See French 1983.

²⁴I counted approximately 71 adjectival examples in Shintani 2015a.

²⁵I counted about 35 examples of verbs of this type in Shintani, *op. cit.*

(3) *Transitive verbs*²⁶

| | | | |
|---------------|-------------------------------------|----------|--------------------------------------|
| 'cover' | ʔa ³³ -həp ³³ | 'fry' | ʔa ³³ -ko ⁵⁵ |
| 'polish' | ʔa ³³ -pan ⁵⁵ | 'steal' | ʔa ³³ -hou ^{ʔ33} |
| 'strike/slap' | ʔa ³³ -bok ³³ | 'tie up' | ʔa ³³ -kha ⁵⁵ |
| 'weave' | ʔa ³³ -vai ⁵⁵ | 'wrap' | ʔa ³³ -thop ⁵³ |

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:²⁷

| | | |
|---------|------|--------------------------------------|
| | PTB | Shanke |
| 'son' | *za | ʔaa ³³ -se ⁵³ |
| 'thin' | *ba | ʔaa ³³ -pi ^{ʔ53} |
| 'tooth' | *swa | ʔaa ³³ -vi ³³ |

(4) *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-θo⁴² (Shintani 2015b:188-9).

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

| | | | |
|-----------------|---|-----------|--|
| 'bone' | ʔa ³³ -ru ⁴⁵⁴ | 'claw' | ʔa ³³ -læ ⁴² , ʔa ³³ -khua ⁴⁵⁴ |
| 'crown of head' | ʔa ³³ -khia ⁴² | 'egg' | ʔa ³³ -tui ⁴² |
| 'eye' | ʔa ³³ -mi ^{ʔ55} | 'feather' | ʔa ³³ -min ⁴⁵⁴ |
| 'head' | ʔa ³³ -lu ⁴² | 'kidney' | ʔa ³³ -tin ⁴² |
| 'lung' | ʔa ³³ -tua ⁴² | 'tail' | ʔa ³³ -le ⁴² -mæ ⁴² |
| 'tongue' | ʔa ³³ -læ ⁴² | 'wing' | ʔa ³³ -sa ⁴² ke ⁴² |
| 'branch' | ʔa ³³ -ran ⁴² | 'bud' | ʔa ³³ -ʔu ⁴² ma ⁴² run ⁴² |
| 'fruit' | ʔa ³³ -thæ ⁴² | 'leaf' | ʔa ³³ -no ⁴⁵⁴ |
| 'root' | ʔa ³³ -tha ⁴² rui ⁴² | 'seed' | ʔa ³³ -mon ⁴⁵⁴ |
| 'sprouts' | ʔa ³³ -ci ⁴² | | |

B. *Before verbs*(1) *Adjectival verbs*

| | | | |
|----------|--------------------------------------|-----------|-------------------------------------|
| 'bitter' | ʔa ³³ -kha ^{ʔ55} | 'crooked' | ʔa ³³ -ku ⁴² |
| 'fat' | ʔa ³³ -tho ⁴² | 'full' | ʔa ³³ -ʔe ^{ʔ55} |
| 'itchy' | ʔa ³³ -tha ^{ʔ55} | 'raw' | ʔa ³³ -he ⁴² |
| 'ripe' | ʔa ³³ -vue ⁴² | 'soft' | ʔa ³³ -no ⁴⁵⁴ |
| 'thin' | ʔa ³³ -pa ^{ʔ55} | 'wet' | ʔa ³³ -cia ⁴² |

²⁶ I counted about 66 examples of transitive verbs in Shintani.

²⁷ See Matisoff 2004.

| | | | |
|---------|-------------------------------------|----------|-------------------------------------|
| 'black' | ʔa ³³ -man ⁴² | 'green' | ʔa ³³ -hin ⁴² |
| 'red' | ʔa ³³ -se ⁴² | 'yellow' | ʔa ³³ -me ⁴² |
| 'white' | ʔa ³³ -ro ⁴² | | |

Note the use of this prefix with color terms (a usage paralleled in several other languages cited here. Adjectives occupy a paradoxical role in many TB languages, having both nominal and verbal characteristics.

(2) *Intransitive action verbs (change of state; body moves; utterance)*

| | | | |
|------------|--|------------|--|
| 'bloom' | ʔa ³³ -po ⁴² | 'congeal' | ʔa ³³ -lon ⁴⁵⁴ ku ⁷⁵⁵ |
| 'crawl' | ʔa ³³ -vo ⁴² | 'decay' | ʔa ³³ -ru ⁴² |
| 'defecate' | ʔa ³³ -ʔe ⁷⁵⁵ | 'fly' | ʔa ³³ -ju ⁴² |
| 'lie down' | ʔa ³³ -hun ⁴² | 'roar' | ʔa ³³ -ro ⁴² |
| 'shrink' | ʔa ³³ -thin ⁴² ku ⁷⁵⁵ | 'swell up' | ʔa ³³ -phein ⁴² |

(3) *Transitive verbs*

| | | | |
|-----------------|---|----------|-------------------------------------|
| 'carry on pole' | ʔa ³³ -pui ⁷⁵⁵ | 'cover' | ʔa ³³ -fu ⁴⁵⁴ |
| 'fill' | ʔa ³³ -ruin ⁴² chi ⁷⁵⁵ | 'peck' | ʔa ³³ -tu ⁷⁵⁵ |
| 'pierce' | ʔa ³³ -kha ⁴² vi ⁴⁵⁴ | 'strain' | ʔa ³³ -ho ⁴² |

(5) *Tangk Hul Naga*

A recent dissertation on this language (Leisan 2016) amply confirms the various semantic extensions of the versatile *ʔa- prefix.²⁸ This prefix, written /e³/ 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.

(a) *Kinship terms*

| | | | |
|---------------|---------------------------------|---------------|---------------------------------|
| 'grandchild' | e ³ -ʔi ³ | 'grandmother' | e ³ -ji ³ |
| 'grandfather' | e ³ -vo ³ | 'mother' | e ³ -vi ¹ |

(b) *Bodyparts*

| | | | |
|--------------|---|-------------------|-----------------------------------|
| 'bile' | e ³ -thi ¹ | 'lungs' | e ³ -phəi ² |
| 'head' | e ³ -kui ¹ | 'spleen' | e ³ -pei ³ |
| 'intestines' | e ³ -khə ³ -ʔi ³ | 'urinary bladder' | e ³ -pho ² |

Also in the inalienable category is the noun for 'name'. After all, a name is as much a part of one's identity as a bodypart!

'name' e³-miŋ³

'Your name' is expressed in Tangk Hul as nə² vi³ e³-miŋ³, which is morpheme-by-morpheme cognate with Lahu nə ve ɔ-mɛ. Tangk Hul vi³ and Lahu ve are genitive markers; see (d) below.

²⁸ See Leisan 2016:82, 84-5, 104.

(c) *Nominalizer*

Before Tangkhul verbal roots, \mathfrak{v}^3 - serves as a nominalizer:

| | <i>Verb</i> | | <i>Noun</i> | |
|---------|--|------------------------|-------------|--|
| 'bloom' | $\mathfrak{v}on^3$ | 'flower' | | $\mathfrak{v}^3\text{-}von^1$ |
| 'break' | $\mathfrak{t}ek^2$ | 'broken piece of wood' | | $\mathfrak{v}^3\text{-}tek^1$ |
| 'high' | $\mathfrak{t}fui^3$ | 'height' | | $\mathfrak{v}^3\text{-}tfui^1$ |
| 'sit' | $\mathfrak{p}em^2$ | 'place' | | $\mathfrak{v}^3\text{-}pem^1$ |
| 'smell' | $\mathfrak{n}e^3\text{-}n\grave{a}m^3$ | 'a smell' | | $\mathfrak{v}^3\text{-}\mathfrak{n}e^3\text{-}n\grave{a}m^1$ |

Note that the tone of the verb undergoes a change to high / ¹ / in its nominal form.

(d) *Third person pronoun*

The independent Tangkhul 3rd person pronoun is \mathfrak{v}^3 'he/she'. In this usage it is not a prefix. This morpheme is obligatorily followed by the particle \mathfrak{vi}^3 in genitive constructions: $\mathfrak{v}^3 \mathfrak{vi}^3 \mathfrak{kui}^1$ 'his/her head'.²⁹ For the usage of the $\mathfrak{?}a$ - prefix as a 3rd person marker on nouns and verbs in the Chin languages, see above 3.14.

(6) *Lotha*

The relatively well-studied Lotha Naga language has two prefixes, \mathfrak{o} - and \mathfrak{e} -, which both descend from the open-syllable variant of the $\mathfrak{?}a$ - prefix.

Lotha \mathfrak{o} is the regular reflex of PTB $\mathfrak{?}a$:

| | <i>PTB</i> | <i>Lotha</i> |
|----------|---|--|
| 'animal' | $\mathfrak{?}sya$ | $\mathfrak{o}\text{-}so$ |
| 'bird' | $\mathfrak{?}wa$ | $\mathfrak{w}\mathfrak{o}\text{-}ro$ |
| 'ear' | $\mathfrak{?}g/r\text{-}na$ | $\mathfrak{e}\text{-}no$ |
| 'eat' | $\mathfrak{?}dzya$ | $\mathfrak{t}so$ |
| 'father' | $\mathfrak{?}p^w\mathfrak{a}$ | $\mathfrak{p}\mathfrak{o}, \mathfrak{o}\text{-}\mathfrak{p}\mathfrak{o}$ |
| 'fish' | $\mathfrak{?}ny\mathfrak{a}$ | $\mathfrak{o}\text{-}\mathfrak{n}\mathfrak{g}\mathfrak{o}$ |
| 'five' | $\mathfrak{?}m/l\text{-}\mathfrak{n}\mathfrak{a}$ | $\mathfrak{m}\mathfrak{u}\mathfrak{n}\mathfrak{g}\mathfrak{o}$ |
| 'nose' | $\mathfrak{?}s\text{-}\mathfrak{n}\mathfrak{a}$ | $\mathfrak{k}\mathfrak{e}\mathfrak{n}\text{-}\mathfrak{n}\mathfrak{o}$ |
| 'tooth' | $\mathfrak{?}sw\mathfrak{a}$ | $\mathfrak{o}\text{-}\mathfrak{h}\mathfrak{o}$ |

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

²⁹ As mentioned above, Tangkhul \mathfrak{vi}^3 is cognate with Lahu \mathfrak{ve} . Both descend from a PTB copular morpheme $\mathfrak{?}way$ (Matisoff 1985).

| | | |
|----------|------------|--------------------|
| 'bitter' | *ka | khoa ³⁰ |
| '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-nyui |
| 'grandfather' | o-mo-tsü | 'younger sister' | o-yi-lo; o-nyi-ro |

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

| | | |
|---------|---------------------------|--------------------------|
| | <i>PTB</i> | <i>Lotha</i> |
| '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:

³⁰ The Central Loloish language Lisu also shows labialization of velars before **-a**: Lisu **khwa**³¹ 'bitter'.

| | |
|--------|----------------|
| 'high' | o-ya-ki |
| 'pay' | o-tsen |
| 'wait' | o-sa |

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.

(a) *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**

(b) *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**

Combined use of o- and e- in genitival collocations:

³¹ Contra HPTB:111, where I said it was "perhaps from ***?iŋ-**." The Lotha reflex of ***-iŋ** seems rather to be **-yaŋ**, e.g.: 'full' PTB ***bliŋ** > ***pliŋ** > Lotha **phyang-a**; 'name' PTB ***r-miŋ** > Lotha **o-myang**.

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?") ^{32 / 33} |

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 *ʔai*, it would point to a PTB etymon **ʔay*, rather than **ya*. For now the source of Lotha prefixal *e-* remains undetermined.³⁴

(7) 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: **e-ve** 'leech' (cf. Mikir **ing-phat**).

B. 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 *ʔə-* occurs before literally hundreds of roots, both nominal and verbal. Of the 1123 pages of Judson's classic dictionary, 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 *ʔ-* 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

³² Cf. Jingpho **tsang** 'black' < PTB **tyaŋ* (STC #225).

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 Cf. a similar use of two prefixes *o-* and *a-* in Mikir genitive constructions (above 3.13), e.g. **oso a-hem** 'placenta' ("child its-house").

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 "rhinoglottophilia" nasalization in many Tibeto-Burman languages.

(1) *Southern Loloish: direct evidence from Bisu, Phunoi, Pyen, Sangkong, Akha*

(1a) *Bisu*³⁵

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

(a) before nouns (especially body-parts)

| | |
|----------|-----------|
| 'bone' | ʔaŋ-gàw |
| 'breath' | ʔaŋ-sà |
| 'egg' | ʔaŋ-ʔù |
| 'head' | ʔaŋ-tù |
| 'horn' | ʔaŋ-khjáv |
| '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-pluŋ |
| 'many' | ʔaŋ-bjà |
| 'red' | ʔaŋ-hné |
| 'sick' | ʔaŋ-dá |
| 'sweet' | ʔaŋ-cháv |

(1b) *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 ʔã⁵⁵-:

(a) before nouns (especially body-parts)

| | |
|--------------|--------------------------------------|
| 'body hair' | ʔã ⁵⁵ -hmot ³³ |
| 'bone' | ʔã ⁵⁵ -jau ¹¹ |
| 'ear' | ʔã ⁵⁵ -hna ¹¹ |
| 'eye' | ʔã ⁵⁵ -biq ³³ |
| 'head' | ʔã ⁵⁵ -tu ³³ |
| 'intestines' | ʔã ⁵⁵ -ʔu ⁵⁵ |
| 'liver' | ʔã ⁵⁵ -sin ¹¹ |

(b) before a few adjectival verbs

| | |
|---------|-------------------------------------|
| 'alive' | ʔã ⁵⁵ -tat ¹¹ |
| 'full' | ʔã ⁵⁵ -piŋ ³³ |

³⁵ See Beaudouin 1991, where the prefix is written aŋ-, without the glottal stop.

(1c) *Pyen* (Shintani 2009)

Pyen has both ʔaŋ^{33} - and ʔa^{33} -; i.e. it preserves both the open- and nasal-final variants of the prefix.

(A) ʔaŋ^{33} - occurs with body-parts, with a few kinship terms and natural objects, but especially with adjectival verbs.

(a) with body-parts

| | |
|--------------|--|
| 'bone' | $\text{ʔaŋ}^{33}\text{-gao}^{31}$ |
| 'egg' | $\text{ʔaŋ}^{33}\text{-ʔu}^{33}$ |
| 'flesh' | $\text{ʔaŋ}^{33}\text{-sa}^{31}$ |
| 'head' | $\text{ʔaŋ}^{33}\text{-tu}^{31}$ |
| 'horn' | $\text{ʔaŋ}^{45}\text{-chao}^{45}$ [note the different tone of the prefix] |
| 'intestines' | $\text{ʔaŋ}^{33}\text{-ʔu}^{45}$ |
| 'skin' | $\text{ʔaŋ}^{33}\text{-kho}^{45}$ |

(b) with kinship terms

| | |
|----------------------|------------------------------------|
| 'elder brother' | $\text{ʔaŋ}^{33}\text{-ʔai}^{45}$ |
| 'daughter's husband' | $\text{ʔaŋ}^{33}\text{-fɔŋ}^{31}$ |
| 'husband' | $\text{ʔaŋ}^{33}\text{-bloŋ}^{45}$ |
| 'son's wife' | $\text{ʔaŋ}^{33}\text{-chu}^{45}$ |

(c) with natural objects

| | |
|--------|--|
| 'leaf' | $\text{ʔaŋ}^{33}\text{-cuŋ}^{45}\text{pha}^{31}$ |
| 'root' | $\text{ʔaŋ}^{33}\text{-che}^{45}$ |
| 'tree' | $\text{ʔaŋ}^{33}\text{-cuŋ}^{45}$ |

(d) with adjectival verbs

| | | | |
|-------------|------------------------------------|---------------|------------------------------------|
| 'big' | $\text{ʔaŋ}^{33}\text{-hu}^{31}$ | 'long (time)' | $\text{ʔaŋ}^{33}\text{-maŋ}^{31}$ |
| 'crooked' | $\text{ʔaŋ}^{33}\text{-koe}^{31}$ | 'raw' | $\text{ʔaŋ}^{33}\text{-cum}^{31}$ |
| 'deep' | $\text{ʔaŋ}^{33}\text{-na}^{31}$ | 'ripe' | $\text{ʔaŋ}^{33}\text{-miŋ}^{33}$ |
| 'delicious' | $\text{ʔaŋ}^{33}\text{-chao}^{45}$ | 'shallow' | $\text{ʔaŋ}^{33}\text{-tam}^{45}$ |
| 'dry' | $\text{ʔaŋ}^{33}\text{-ku}^{45}$ | 'small' | $\text{ʔaŋ}^{33}\text{-ji}^{45}$ |
| 'far' | $\text{ʔaŋ}^{33}\text{-wə}^{31}$ | 'sour' | $\text{ʔaŋ}^{33}\text{-chen}^{45}$ |
| 'heavy' | $\text{ʔaŋ}^{33}\text{-han}^{31}$ | 'stinking' | $\text{ʔaŋ}^{33}\text{-nam}^{45}$ |
| 'light' | $\text{ʔaŋ}^{33}\text{-jaŋ}^{45}$ | 'thick' | $\text{ʔaŋ}^{33}\text{-thu}^{45}$ |
| | | 'wet' | $\text{ʔaŋ}^{33}\text{-cen}^{45}$ |

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

| | |
|------------|--|
| 'fragrant' | $\text{ʔaŋ}^{33}\text{-həm}^{33}$ (< Tai; cf. Siamese <i>hǒm</i>) |
|------------|--|

(B) *Pyen* ʔa^{33} - occurs with a miscellaneous array of nouns, especially kinship, natural objects and animals:

(a) kinship

| | |
|---------------------------|----------------------------------|
| 'elder sister' | $\text{ʔa}^{33}\text{-fi}^{45}$ |
| 'father' | $\text{ʔa}^{33}\text{-boŋ}^{45}$ |
| 'father's older brother' | $\text{ʔa}^{33}\text{-ʔu}^{31}$ |
| 'father's younger sister' | $\text{ʔa}^{33}\text{-buŋ}^{33}$ |

| | |
|-------------------|-------------------------------------|
| 'mother' | ʔa ³³ -ba ³³ |
| 'younger brother' | ʔa ³³ -phe ⁴⁵ |
| 'younger sister' | ʔa ³³ -po ³¹ |

(b) natural objects

| | |
|--------|-------------------------------------|
| 'moon' | ʔa ³³ -la ⁴⁵ |
| 'star' | ʔa ³³ -ku ⁴⁵ |
| 'wind' | ʔa ³³ -man ⁴⁵ |

(c) animals

| | |
|----------|---|
| 'bear' | ʔa ³³ -vam ⁴⁵ |
| 'cat' | ʔa ³³ -mɛŋ ³¹ |
| 'crab' | ʔa ³³ -cha ^{ʔ55} |
| 'crow' | ʔa ³³ -wa ³¹ |
| 'duck' | ʔa ³³ -kao ³¹ |
| 'horse' | ʔa ³³ -mɔŋ ³¹ |
| 'ox' | ʔa ³³ -mjaŋ ⁴⁵ hu ⁴⁵ |
| 'turtle' | ʔa ³³ -hoŋ ⁴⁵ |

(d) body parts

| | |
|---------|--------------------------------------|
| 'liver' | ʔa ³³ -chin ³¹ |
| 'leg' | ʔa ³³ -khu ⁴⁵ |

There is an interesting Southern Loloish word for 'lungs': Pyen **m³³mao³³**, with syllabic nasal prefix; cf. Bisu **ʔaŋ-hmaw** 'liver'³⁶, Phunoi **ʔã⁵⁵hmap³³** 'lung', Sangkong **aŋ³³-phap** 'lung'.

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

(1d) Sangkong aŋ³³- (note that Li Yongsui 1991 does not write pre-vocalic ʔ-)

This prefix apparently occurs in Sangkong only before body-part nouns:

| | | | |
|---------------|---------------------------------------|--------------|-------------------------------------|
| 'bone' | aŋ ³³ -zø ³¹ | 'head' | aŋ ³³ -tu ³¹ |
| 'brain' | aŋ ³³ -ndø ³¹ | 'intestines' | aŋ ³³ -u ⁵⁵ |
| 'ear' | aŋ ³³ -na ³¹ | 'lung' | aŋ ³³ -phap |
| 'hair (head)' | aŋ ³³ -tsham ⁵⁵ | 'tooth' | aŋ ³³ -so ³¹ |
| 'hand' | aŋ ³³ -lɛ ³¹ | 'waist' | aŋ ³³ -tɛo ³¹ |

(1e) 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):

³⁶ 'Lung' and 'liver' are frequently related semantically in TB. Cf. Jingpho **sɪn-wóp** 'lung', lit. "spongy liver". Matisoff 1978:115.

| | | | |
|----------------|----------|--------------------|-----------|
| 'alert' | yaw-zó | 'hot to the touch' | yaw-cúí |
| 'big/wide' | yaw-hùì | 'insipid (food)' | yaw-byàw |
| 'bitter' | yaw-k'à | 'lazy' | yaw-byá |
| 'black' | yaw-náq | 'new' | yaw-shùiq |
| 'bushy' | yaw-byù | 'rough' | yaw-sáq |
| 'cold' | yaw-gáq | 'striped' | yaw-byàq |
| 'crooked' | yaw-g'òq | 'thick' | yaw-tú |
| 'dirty/filthy' | yaw-dóe | 'thin' | yaw-bà |

The palatal semivowel in Akha **yə** suggests that this prefix should be reconstructed as ***yaŋ-**, thus claiming it has the same source as Lotha **e-** (above V.5) and Mikir **ing-** (Section (4) below).

(2) Central Loloish

(2a) Lahu

By far the most common Lahu prefix is **ə-**,³⁷ which is the regular reflex of the PLB and PTB rhyme ***-aŋ**:

| | PTB | Lahu |
|-----------------|--------|------|
| 'deaf' | *baŋ | pə |
| 'drink' | *mdaŋ | də |
| 'old' | *maŋ | mə |
| 'rice (cooked)' | *haŋ | ə |
| 'see' | *mraŋ | mə |
| 'study' | *mdzaŋ | jə |
| 'word' | *daŋ | tə |
| 'you' | *naŋ | nə |

Of the 1414 pages in my Lahu Dictionary (Matisoff 1988), 86 pages are devoted to words with this prefix.

(2b) 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⁻-khu²¹** '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'; **phi?³³** 'be bad' > **a⁵⁵⁻-phi?³³** 'bad people'.

The nasal variant **aŋ¹³⁻** is prefixed to some color terms: **aŋ¹³⁻-mu?²¹** 'green; a green object'.

(3) Rawangish³⁸

³⁷ The other two related prefixes in Lahu are **a-** (used in kinship terms; above 3.11(c)) and **á-** (below, section VII).

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.

(3a) *Rawang əŋ-* (Barnard 1934)

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

(3b) *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 has a further variant under a different tone, **ʔaŋ⁴²**, which functions as the 3rd person pronoun in the language.

(A) *The ʔa²²- allofam*

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

(1) *With nouns*

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

1. *animal names*

| | |
|-----------|---|
| 'buffalo' | ʔa ²² -lo ⁴² |
| 'owl' | ʔa ²² -phu ⁴⁴ |
| 'parrot' | ʔa ²² -joŋ ⁴⁴ |
| 'tick' | ʔa ²² -su ⁴² tha ⁴⁴ la ⁴⁴ |
| 'wolf' | ʔa ²² -jit ²² |

2. *bodyparts*

| | |
|----------|-------------------------------------|
| 'corpse' | ʔa ²² -naŋ ⁴² |
| 'ear' | ʔa ²² -na ⁴² |
| 'eye' | ʔa ²² -me ⁴² |
| 'hair' | ʔa ²² -ni ⁴⁴ |
| 'head' | ʔa ²² -go ⁴⁴ |

3. *plants and natural objects*

| | |
|------------------------|--|
| 'bean' | ʔa ²² -no ²² |
| 'camphor tree' | ʔa ²² -dzap ⁴² -thuŋ ⁴² |
| 'flax (Indian)' | ʔa ²² -dzi ⁴² -thuŋ ⁴² |
| 'pepper (black)' | ʔa ²² -dzap-si ⁴⁴ |
| 'potato' ⁴⁰ | ʔa ²² -lu ⁴⁴ |
| 'thorn' | ʔa ²² -xu ⁴⁴ |

4. *numerals*

| | |
|----------|---|
| 'two' | ʔa ²² -ni ⁴⁴ |
| 'three' | ʔa ²² -səm ⁴² |
| 'four' | ʔa ²² -bi ⁴² |
| 'eighty' | ʔa ²² -sat ²² -sar ⁴ |

³⁹ Benedict changed Barnard's original symbol /ǎ/ for the unstressed central vowel to "ə".

⁴⁰ This word, a loan from Indic, shows that this prefix is somewhat productive.

'vegetables' $\text{ʔa}^{22}\text{-jon}^{44}\text{-khan}^{22}\text{-ja}^{42}$

5. nominalized verbs

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

6. kinship terms

A stronghold of this prefix is in kinship terms:

| | | | |
|----------------|----------------------------------|--------------------|-----------------------------------|
| 'elder sister' | $\text{ʔa}^{22}\text{-nam}^{22}$ | 'mother's father' | $\text{ʔa}^{22}\text{-khan}^{42}$ |
| 'father' | $\text{ʔa}^{22}\text{-phe}^{42}$ | 'mother's mother' | $\text{ʔa}^{22}\text{-tshi}^{42}$ |
| 'mother' | $\text{ʔa}^{22}\text{-me}^{42}$ | 'mother's brother' | $\text{ʔa}^{22}\text{-khu}^{42}$ |

(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' | $\text{ʔa}^{22}\text{-nap}^{42}$ | 'melt' | $\text{ʔa}^{22}\text{-jon}^{42}$ |
| 'cheat/lie' | $\text{ʔa}^{22}\text{-ja}^{42}$ | 'peel off (paint)' | $\text{ʔa}^{22}\text{-cha}^{22}$ |
| 'cough' | $\text{ʔa}^{22}\text{-xol}^{42}$ | 'reach' | $\text{ʔa}^{22}\text{-lan}^{44}$ |
| 'drink' | $\text{ʔa}^{22}\text{-ʔe}^{22}$ | 'respect' | $\text{ʔa}^{22}\text{-phə}^{44}$ |
| 'far' | $\text{ʔa}^{22}\text{-rom}^{44}$ | 'satiated' | $\text{ʔa}^{22}\text{-gan}^{42}$ |
| 'feel' | $\text{ʔa}^{22}\text{-sam}^{44}$ | 'sneeze' | $\text{ʔa}^{22}\text{-thi}^{44}$ |
| 'frightened' | $\text{ʔa}^{22}\text{-nan}^{44}$ | 'stumble' | $\text{ʔa}^{22}\text{-ŋa}^{42}$ |
| 'high/tall' | $\text{ʔa}^{22}\text{-han}^{44}$ | 'submerge' | $\text{ʔa}^{22}\text{-ləp}^{22}$ |
| 'light (weight)' | $\text{ʔa}^{22}\text{-ŋan}^{42}$ | 'tie (score)' | $\text{ʔa}^{22}\text{-ra}^{44}$ |
| 'low' | $\text{ʔa}^{22}\text{-tshep}^{42}$ | 'wake up' | $\text{ʔa}^{22}\text{-sat}^{42}$ |
| 'meet with' | $\text{ʔa}^{22}\text{-xəm}^{42}$ | 'wither' | $\text{ʔa}^{22}\text{-məl}^{42}$ |

B. The ʔaŋ^{22} allofam

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

(a) With nouns

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

| | | | |
|----------------|------------------------------------|--------------|-----------------------------------|
| 'flesh' | $\text{ʔaŋ}^{22}\text{-sa}^{22}$ | 'page' | $\text{ʔaŋ}^{22}\text{-mar}^{44}$ |
| 'host' | $\text{ʔaŋ}^{22}\text{-khan}^{42}$ | 'powder' | $\text{ʔaŋ}^{22}\text{-si}^{22}$ |
| 'kind/species' | $\text{ʔaŋ}^{22}\text{-phan}^{42}$ | 'seed' | $\text{ʔaŋ}^{22}\text{-je}^{44}$ |
| 'line' | $\text{ʔaŋ}^{22}\text{-xur}^{42}$ | 'stem' | $\text{ʔaŋ}^{22}\text{-gon}^{42}$ |
| 'nutshell' | $\text{ʔaŋ}^{22}\text{-tshe}^{22}$ | 'smell/odor' | $\text{ʔaŋ}^{22}\text{-səŋ}^{44}$ |

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

⁴¹ Shintani cites all verbs with the particle ʔe^{22} , no doubt cognate with the Lahu nominalizer **ve** (< PTB ***way**), but this has been omitted from our list.

| | | | |
|-----------------------------------|---|--------------|--|
| 'daughter' | ʔaŋ ²² -tsha ⁴² -me ⁴² | 'relatives' | ʔaŋ ²² -rap ⁴² -ri ⁴² |
| 'daughter's husband' | ʔaŋ ²² -san ⁴² -phe ⁴² | 'son' | ʔaŋ ²² -tsha ⁴² |
| 'husband's sibling' ⁴² | ʔaŋ ²² -la ⁴² | 'son's wife' | ʔaŋ ²² -san ⁴² |

(b) *With verbs*

This prefix is relatively quite rare before verb roots, with only about 8 apparent⁴³ examples (most of them intransitive or stative verbs):

| | | | |
|----------------|--|-----------------|--|
| 'congeal' | ʔaŋ ²² -chaŋ ⁴² | 'round' | ʔaŋ ²² -khuar ²² |
| 'fresh (food)' | ʔaŋ ²² -sar ⁴⁴ ʔi ⁴² | 'sprout from' | ʔaŋ ²² -ma ²² -tshuŋ ʔal ²² |
| 'hatch' | ʔaŋ ²² -tshəl ⁴² -kol ²² ʔo ²² | 'strain liquid' | ʔaŋ ²² -tshe ⁴⁴ -lu ⁴² |
| 'new' | ʔaŋ ²² -tsha ⁴⁴ ʔi ⁴² | 'thick/viscous' | ʔaŋ ²² -khe ⁴² ʔi ⁴² |

(c) *With adverbials*

This prefix also occurs with a number of adverbial expressions:

| | | | |
|--------------------|---------------------------------------|---------|---------------------------------------|
| 'certainly/really' | ʔaŋ ²² -chuŋ ⁴⁴ | 'often' | ʔaŋ ²² -khat ²² |
|--------------------|---------------------------------------|---------|---------------------------------------|

(d) *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':

| | |
|---|----------------------------|
| ʔaŋ ⁴² ne ²² -phaŋ ²² di ²² da ²² ʔe ²² | 'S/he will come later.' |
| 3p. later come FUT NOM | |
| ʔaŋ ⁴² ʔaŋ ²² -khat ²² ʔaŋ ²² -khat ²² di ²² ʔe ²² | 'S/he often comes here.' |
| 3p often often come NOM | |
| ʔaŋ ⁴² ʔaŋ ²² -chuŋ ⁴⁴ lo? da ²² ʔe ²² | 'S/he will certainly come' |
| 3p certainly come FUT NOM | |

As the last two examples show, the independent pronoun ʔaŋ⁴² may precede prefixal ʔaŋ⁴²- 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):

| | |
|---|---------------|
| ʔaŋ ⁴² ʔaŋ ²² -tsha ⁴² | 'his/her son' |
|---|---------------|

(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 ʔé-. However it is also attested as ʔaŋ- in three bodypart terms: ʔáŋ-si 'mouth', ʔáŋ-hvu 'palate', ʔáŋ-siŋ 'liver'.

(5) *Mikir (Karbi)*

⁴² This word is also used for 'elder brother's wife' and 'wife's elder sister'.

⁴³ The morphemic analysis of 'hatch', 'sprout from', and 'strain' is uncertain.

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.

***-aŋ** > Mikir **-aŋ** (syllable-final)⁴⁵

| | PTB | Mikir |
|------------------|----------------|----------------|
| 'light (weight)' | *r-ya:ŋ | ar-dzaŋ |
| 'morning' | *b-raŋ | praŋ |
| 'you' | *naŋ | naŋ |

***aŋ-** > Mikir **aŋ-** (prefixally)

This prefix occurs before a large number of noun roots (I have counted approximately 35 examples in Walker: 4-6); several others are cited in HPTB:110.) A few examples:

| | | | |
|-------------------|-----------------|-----------------|-----------------|
| 'bud' | ang-jok | 'hole' | ang-kok |
| 'bush' | ang-plum | 'palate' | ang-ham |
| 'center' | ang-bong | 'scar/pockmark' | ang-pram |
| 'edge of blade' | ang-so | 'shoulder' | ang-jin |
| 'elbow' | ang-kung | 'sprout/shoot' | ang-tuk |
| 'eyelash/bristle' | ang-sum | 'steam' | ang-ui |
| 'froth/foam' | ang-pip | 'toasted rice' | ang-bop |
| 'gap/chink' | ang-krak | 'uvula' | ang-hap |

This prefix also occurs before a few verb roots, e.g.:

| | |
|-------------------|-----------------|
| 'beg/importune' | ang-thok |
| 'chaste/faithful' | ang-thik |
| 'glean' | ang-o |
| 'naked/bare' | ang-se |

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

⁴⁴ See subsection (5) 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):

| | PTB | Mikir |
|------------------|--------------|--------------------------|
| 'cold' | *graŋ | niŋ-kreŋ 'winter' |
| 'freeze/congeal' | *glaŋ | paŋ-kleŋ |

But there are no examples of prefixal **eŋ-** in Mikir. (None in Walker's dictionary.)

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. **aboi a-boi** 'repeatedly', **a-lom a-lom** 'id.', **a-joi a-roi** 'mutual/sharing', **a-sapsap** '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").

***yaŋ- > Mikir iŋ-**

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:

[1] *Before velars*

| | |
|-------------|-----------------|
| 'gape/yawn' | ing-ko |
| 'snore' | ing-ngar |
| 'stinking' | ing-krin |
| 'surround' | ing-kai |

[2] *Before palatals*

| | |
|--------------------|------------------------------------|
| 'absorb/suck up' | ing-jup (≠ ing-sip) |
| 'beautiful' | ing-jang |
| 'demented' | ing-cham |
| 'rebuke/disparage' | ing-chek |

[3] *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 |

[4] *Before labials*

| | | | |
|---------|----------------|--------------|---------------|
| 'burst' | ing-bup | 'open/bloom' | ing-pu |
|---------|----------------|--------------|---------------|

| | | | |
|--|------------------------------------|-------------------|--------------------------|
| 'fence off' | ing-pai | 'run' | ing-plong |
| 'fly around' | ing-vei | 'swell up' | ing-bop |
| <i>[5] Before liquids</i> | | | |
| '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 |
| <i>[6] Before s-</i> | | | |
| 'absorb/suck' | ing-sip (× ing-jup) | | |
| 'cold/peaceful' | ing-sam | | |
| 'comb/brush hair' | ing-sok | | |
| 'strain' | ing-sir | | |
| <i>[7] Before vowels or laryngeals</i> | | | |
| 'bark (dog)/growl' | ing-u | | |
| 'do/make' | ing-hoi | | |
| 'slender/fine' | ing-ar | | |
| 'steal' | ing-hu | | |

(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 ***yan-** > Mk. **in-**. One could thus set up the prefix for proto-Mikir as ***(y)an-**.⁴⁷

Similarly, the Lotha variation between the **o-** and the **e-** prefixes⁴⁸ may be said to derive from ***(y)a-**, with the palatalization deemed to be secondary.

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'.

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:

| <i>PTB</i> | <i>Mikir</i> | <i>Lotha</i> |
|------------|--------------|--------------|
| *ʔaŋ- | aŋ- | --- |
| *yaŋ- | iŋ- | --- |
| *ʔa- | a- | o- |
| *ya- | --- | e- |

Other relevant correspondences between Mikir and Lotha:

| | | |
|-------|-------------------|--------------------|
| *-a | -o | -o |
| *-aŋ | -aŋ | -aŋ ⁴⁹ |
| *-ya | -yo ⁵⁰ | (?) |
| *-iŋ | -iŋ ~ -eŋ | -yaŋ ⁵¹ |
| *-yak | -ek ⁵² | -yek ⁵³ |

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 **á-** < ***ʔak-**. The Lahu high-rising tone / ' / 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 **á-** prefix is nowhere near as common as **ð-**), but it does occur in about 70 words (13 pages of my Lahu dictionary). Some examples:

| | | | |
|----------------|--------|------------|--------|
| 'banana' | á-pô | 'jewsharp' | á-thâ |
| 'blanket' | á-bôʔ | 'leaf' | á-phâʔ |
| 'chili pepper' | á-phêʔ | 'ragweed' | á-ghâ |
| 'cucumber' | á-phê | 'salt' | á-lêʔ |
| 'goat' | á-chêʔ | 'shirt' | á-pòʔ |
| 'hawk/kite' | á-cè | 'stick' | á-tâ |

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

| | |
|--------------|---------------|
| 'rope/strap' | ð-câʔ ~ á-câʔ |
|--------------|---------------|

⁴⁹ E.g. 'deaf' ***baŋ** > Lotha **e-no pang-a** (e-no 'ear'); cf. Lahu **nā-pô pô**.

⁵⁰ E.g. 'bee' ***bya** > Mk. **pjo** (Walker).

⁵¹ E.g. 'name' ***r-miŋ** > Lotha **o-myaŋ**; 'full' ***bliŋ** > Lotha **phyaŋ-a**.

⁵² E.g. 'lick' ***m-lyak** > Mk. **ing-lek**.

⁵³ E.g. 'eye' ***s-myak** > Lotha **o-mhyek**.

⁵⁴ See my note in Benedict 1972 (p.121, n.335) and Matisoff 2003:108.

| | |
|----------|----------------------------|
| 'thorn' | ð-chû ~ á-chû (also f-chû) |
| 'thread' | ð-khe ~ á-khe |

This prefix is actually semi-productive, as witness its use in a recent loanword:
'tape (for recording)' á-thê?

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:

- Jäschke (1881/1958): subscript circle preconsonantly; "<" prevocally
- Bell (1920/1965) does not transcribe it at all in pre-consonantal position
- Wolfenden (1929): "a"
- Miller (1968): "h"
- Matisoff (1970; 2003): "h"
- Benedict (1972): apostrophe /' /
- Hu T'an (1979): "ñ"
- J. Sun (1986): "h"
- Beyer (1992): small upper-case "N"
- Hill (2005): "v"; (2009) "h"

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 2), I assume that (1) the original PTB form was *ʔa-; (2) an unstressed variant [ʔǎ-] developed at an early date; (3) a nasalized "rhinoglottophilic" pronunciation [ʔǎ̃-] or [ǎ̃-] 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 [~].⁵⁶ This account presupposes a concomitant change in syllabic structure, from fully dissyllabic

⁵⁵ This issue has been discussed in the literature for nearly a century. Cf. Wolfenden 1929:177ff.; Benedict 1972:121-123; J. Sun 1986:112-115; Beyer 1992:43-47; Matisoff 1975:273-276; Matisoff 2003:104-116; Hill 2005.

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.

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,⁵⁷ I consider these two letters to have stood for stressed (*a-chen*) vs. unstressed (*a-chung*) variants of the same prefix.^{58/59}

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-vocalically) 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].⁶⁰

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.):⁶¹

| | | | |
|---------------|-------------------------------|----------------|-----------------------|
| <i>ʔa-sru</i> | 'aunt' | <i>ʔa-khu</i> | 'father's brother' |
| <i>ʔa-ne</i> | 'father's sister; grand-aunt' | <i>ʔa-phyi</i> | 'grandmother' |
| <i>ʔa-baŋ</i> | 'husband of parent's sister' | <i>ʔa-jo</i> | 'man's elder brother' |
| <i>ʔa-ma</i> | 'mother' | <i>ʔa-ʒaŋ</i> | 'mother's brother' |

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 *chuŋ-rtags* (Mod. Tib. *cūŋdaà*) '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.*).

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 *ŋ-* "for a very small minority of speakers".

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

ʔa-che 'woman's elder sister'

In Sun's Amdo dialect, however, the prevocalic *a-chung* of Central Tibetan merged with *a-chen* to become [ʔ]. In other Amdo 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 **hog**) 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 **hog**; Lahu **hó(n)**; WB **ʔauk**; Jg. **ləwuʔ**; Bisu **ʔaŋ-ʔók** [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 ***ʔoʔ**.⁶² My explanation of the Lahu high-rising tone here works equally well regardless of what phonetic interpretation is 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, ʔ, 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 /ɔ/.⁶³

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.⁶⁴

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

A few examples from Sun 1986:

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.

⁶³ In other words, both rhinoglottophilia and glottal dissimilation work equally well, whether the initial was ʔ- 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).

| | Written Tibetan | nDzorge Amdo |
|------------------|-----------------|--------------|
| 'drink' | ḥthug-ba | nthoŋ |
| 'insect/worm' | ḥbu | nby |
| 'sit (pres.)' | ḥdug-pa | ndvŋ |
| 'small wild dog' | ḥphar-ba | nphæræ |
| 'wild yak' | ḥbroŋ | ndzøŋ |
| | | |
| 'arrow' | mda | ndæ |
| 'kidney' | mkhal-ma | nkhamæ |
| 'neck' | mgul | ngyr |

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

| | | |
|---------|---------|----------|
| 'house' | khaŋ-pa | nkhaŋ-wæ |
|---------|---------|----------|

Sun believes that preconsonantal *a-chung* was meant to stand for prenasalization from the very beginning of the Tibetan script.⁶⁵ 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:⁶⁶

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-gyur** (Jäschke:38 calls this pronunciation 'common')

bka-ḥbum 'the 100,000 precepts' (book) > **kam-bum** (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:

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 /f/ in preconsonantal position.

⁶⁶ See Matisoff 1975:274-275.

Skt. **khaṇḍa** ‘candy/treacle’ > WT **kha-ḥda** (see Jäschke:38)

Skt. **bimbi** ‘small lumps of clay’ > WT **ḥbi-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 **ḥ-** 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.⁶⁷ 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.

| | Written Tibetan | Lahu | Written Burmese |
|---------------|-------------------|---------|-----------------|
| ‘drink’ | ḥthuṅ-ba | də | |
| ‘drip/drop’ | ḥdzag-pa | (ə-)jâ? | |
| ‘prick’ | ḥdzugs-pa, zug-pa | jô? | |
| ‘sneak/slink’ | ḥjab-pa | jâ? | |
| ‘this’ | ḥdi | | di |

So where did this prenasalization come from? As indicated above, it arose from the dropping of the vowel in the unstressed rhinoglottophiliac variant of the *ʔa- prefix, that is: *ʔa- > *ʔə- > *ə- > / ~ /, which yielded monosyllabic prenasalized forms in place of the previous dissyllabic or sesquisyllabic ones.

8.3 *A-chung* post-vocally: an orthographic device

Sun (1986:114) lists the various post-vocalic functions of *a-chung*, including the transcription of 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 “dag”.

8.4 Rhinoglottal coexistence

I long ago cited *a-chung* as an example of “rhinoglottal 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).

⁶⁷ This point was not made in Matisoff 2003.

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.⁶⁸ My rhinoglottophilia explanation seems to provide that missing link.

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 [mənəm], [mənəl], [mənŋal], [mənŋon].

Both of these prefixes occur only before voiceless aspirated and voiced initials, but not before voiceless unaspirated ones.⁶⁹ But **m-** occurs before nasals, while **h-** does not. The phonetic difference between the two prefixes is that "mC" represented a sesquisyllabic sequence [məC...], whereas "hC" represented a monosyllabic prenasalized syllable [nC...].⁷⁰

In WT dictionaries the prefixes occur in the order g-, d-, b-, **m-**, **h-**, r-, l-, s-, br-, bs-. The fact that **m-** and **h-** occur consecutively implies that they share a phonetic feature. Wolfenden in fact would claim that the *three* consecutive prefixes **b-**, **m-**, **h-** 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 (pp. 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

⁶⁸ 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 (p. 127) tries to use my concept of rhinoglottophilia to make the change from fricatives to nasals more plausible.

⁶⁹ **h-** 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.

⁷⁰ 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).

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.*).⁷¹

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:

| | | |
|------------|-----------------|-------------------|
| | PTB | WT |
| 'flea' | *s-ləy | hji-ba ~ lji-ba |
| 'head' | *m-gaw | hgo ~ mgo |
| 'neck (1)' | *m-liŋ | hjiŋ-pa ~ mjiŋ-pa |
| 'neck (2)' | *m-gul × *m-gil | hgul ~ mgul |
| 'tadpole' | | hjoŋ ~ ljoŋ |

IX. Correspondences among the 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

| | | |
|---------|----------|--------------|
| | WT | Lotha |
| 'throw' | hphen | mpen |
| 'suck' | hjibs-pa | ntsip 'kiss' |

*Correspondence between WT a-chung and Loloish *ʔaŋ-*

| | | | |
|----------|-----|----------------------------|------|
| | WT | Loloish | PTB |
| 'insect' | hbu | Bisu ʔaŋ-baə ⁷² | *bəw |

Correspondences between WT a-chung and Mikir ing-

| | | |
|----------------------|----------|-------------------|
| | WT | Mikir |
| 'bloom' | hbar-ba | ing-par |
| 'open' | hbu-ba | ing-pu |
| 'suck' ⁷³ | hjibs-pa | ing-jup ~ ing-sip |

⁷¹ 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.

⁷² The regular Bisu reflex of PTB/PLB *-əw is a diphthong like -aə (see Beaudouin 1988:57). Cf. 'horn' PTB *krəw > Bisu ʔaŋ-khyáə; 'bone' PLB *rəw > Bisu ʔaŋ-gàə. The Bisu reflex of the stopped rhyme *-ap is the same: 'snot' PTB *s-nap > Bisu hnàə; 'dry in the sun' PLB *ʔ-lap > Bisu hlàə.

Correspondences between WT *m-* and Loloish *ʔaŋ-

| | WT | Loloish | PTB |
|------------------|-----------------|--|---------------|
| 'liver' | mchin-pa | Phunoi ʔã ⁵⁵ -sin ¹¹ | *m-sin |
| 'stinking/smell' | mnam-pa | Bisu ʔaŋ-nam | *m-nam |

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

| | WT | Mikir |
|---------------|-----------------|----------------------------|
| 'liver' | mchin-pa | ang-thin ~ ing-thin |
| 'smell/stink' | mnam | ing-nim ~ ang-nim |

Correspondences between PTB **m-* and Mikir *ing-*

| | PTB | Mikir |
|--------------|----------------|----------------------------|
| 'lick' | *m-lyak | ing-lek |
| 'liver' | *m-sin | ang-thin ~ ing-thin |
| 'salt/yeast' | *m-di | ing-ti |
| 'twenty' | *m-kul | ing-koi |

Correspondences between Mikir *ing-* and Ao *me-*

| | Mikir | Ao |
|---------|-----------------|---------------|
| 'itch' | ing-thak | me-sak |
| 'lick' | ing-lek | me-zak |
| 'smell' | ing-nim | me-nem |

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

⁷³ The Lahu word family descending from this etymon includes **chɔ̃ʔ** 'suck' and **cú** 'milk', the latter pointing to an earlier *glottalized initial.

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-mǔ 阿母 'mother' [Han texts]; ā-nú 阿奴 'younger brother'; ā-shuí 阿谁 'who'; ā-nǐ 阿你 'you'. More examples are to be found in Wu Jingrong et al. (1979:1): ā-bǎo 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 *ṃ and *ṇ. 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:

| | PIE | Sanskrit | Greek | Germanic | Latin |
|---------------------|----------|----------|----------|----------------------|-------------------|
| 'hundred' | *kṛ̥ntóm | śatam | hekatón | Gm. hundert | centum |
| 'ten' | *dekṃ | dáśa | déka | Gothic taihun | decem |
| 'coming (n.)' | *gʷṃtí | gatiḥ | basis | | (con)ventio |
| 'negative prefix' | *ṇ- | a- | a- | un- | in- |
| 'immortal' | *ṇ-mṛto- | ámṛta- | ámprotos | | immortālis |
| 'accusative suffix' | *-ṃ | | -a | | -em |
| 'foot' (object) | *ped-ṃ | | poda | | pedem |

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.

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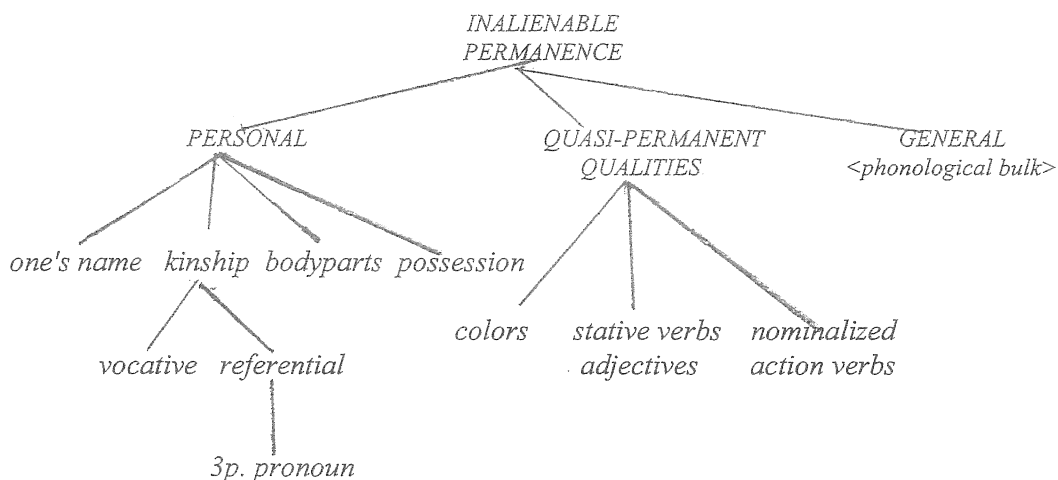
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Morphosemantics of the Proto-Tibeto-Burman **a-* prefix: glottal and nasal complications

(with an Appendix offering analogies with the English preformative *a-*)

The body of this paper (to be published in CAAAL) is concerned mainly with the morphophonemics of the PTB **a-* prefix, as diagrammed in Fig. 1 above ("Putative historical development of the PTB **glottal/nasal prefix*"). These morphophonemics are indeed quite interesting, including stressed vs. unstressed variants, nasal and palatal increments, and variation between homorganic final stops and nasals. However, the semantic developments are equally crucial to the discussion, even though they were not diagrammed in the original paper. That lack is remedied in Fig. A:

Fig. A. Semantic flowchart of the PTB **a-* prefix

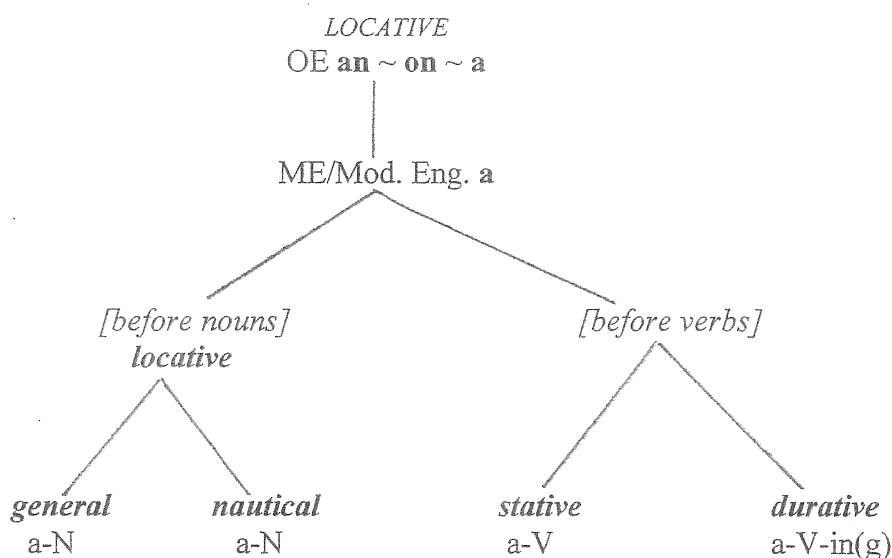


If anyone should think that the morphosemantics of this PTB prefix are excessively complicated, I feel it would be instructive to consider the issues involved in a prefixal element at a much shallower time-depth than PTB, in a language whose history is known in much more detail than is true for almost all ST/TB languages. This is an element which appears at the beginning of dozens of English words, but with such an elusive meaning that nearly all native speakers are unaware that it exists. I chose this comparison since the English morpheme in question, *a-*, is coincidentally identical to the PTB prefix that is the subject of this paper.

The English preformative a-

This element, for which I usually use the neutral term 'preformative' rather than 'prefix', derives from the Old English locative morpheme **an** ~ **on**, with meanings like the Modern English prepositions 'in/at/on'. Since the morpheme occurred in unstressed position, its pronunciation was reduced at an early date to **a** (pronounced schwa). It occurred before both nominal and verbal roots, and became so widespread that it has been attached to a number of loanwords. In fact several different Germanic and Romance etyma were conflated and reduced to this initial **a-**.

Fig. B. General semantic history of the English preformative a-



Semantic categories of English nouns with this preformative

1. Nautical terms

aback, abaft, abeam, aboard, aground, alee, aloft, aloof, aport, asea, ashore, astern, athwart, atrip, awash, aweigh

Notes:

- **aback** is now mostly used in the expression *take aback*, i.e. 'surprise someone'.
- **adrift** and **afloat** are nautical, but are built on verbs, not nouns.
- **ahoy** is a widespread interjection used to hail ships at sea; the variant without **a-** is attested in many languages of the world.
- **atrip** means 'just clear of the bottom (of an anchor);
- **avast** is a loan from Dutch *houd fast!* "hold fast").
- **avaunt** is a loan from Old French *avant*.
- **aweigh** occurs mostly in the imperative expression "anchors aweigh!" (i.e., 'Raise the anchors clear of the sea-bottom!'), title of a patriotic naval song during World War II (to 'weigh anchor' means 'to raise an anchor'). Like 100% of American children of that era, I

misinterpreted this expression to mean "anchors *away*", i.e. 'get rid of the anchors', which in fact means about the same thing.

2. General locatives

about, above, abreast, abroad, across, afar, afield, afoot, against, ahead, along, amid, among, anear, anent, apeak, around, aside, aslant, aslope, astride, asunder, atop, away

Notes:

- **abreast, afoot, and ahead** are built on bodypart terms. **afoot** is now used mostly in the sense of 'in preparation', e.g. "What plans are afoot for tonight?"
- **afore** is an archaic or dialectal variant of *before*.
- **akimbo** is from Middle English *in kenebowe* (lit. *keen bow*) 'in a sharp curve'
- **anear** is archaic, although its opposite, **afar**, is still in common use.
- **anent** is archaic, meaning "on a level with".
- **aslant** is now archaic, but it was still current in Shakespeare's time. Cf. the verse "There is a willow grows aslant a brook" (*Hamlet*, Act IV, Scene 7).
- **astraddle** and **astride** usually refer to position on horseback.
- **atop** is in current use, but its opposite, ***abottom**, does not exist.

3. With stative verbs or adjectives

abide, ablaze, acock, adrift, afloat, aflutter, afoul, afraid, afresh, agape, agleam, agley, aglitter, aglow, ajar, alive, aloud, amiss, anew, ashamed, askew, asleep, astir, atilt, await, awake, weary, awry

Notes:

- **acock** means 'in a cocked position, as a firearm'.
- **afeared** is a dialectal variant of **afraid**.
- **agley** is a Scottish word meaning 'all fouled up', as in Robert Burns' famous verse, "The best laid schemes of mice and men gang oft agley" (i.e. often go wrong).
- **await** is from Old North French *awaitier* (a- < Lat. *ad* 'toward' + *waitier* 'watch' < Germanic).
- **weary** is now archaic, but appears in Shakespeare:
"I 'gin to grow weary of the sun
And wish th' estate o' th' world were now undone" (*Macbeth*, Act V, Scene 5).

4. With action verbs

In earlier stages of English, **a-** seems to have been freely used with action verbs to convey a durative/progressive meaning. The OED cites forms like **aswim, aswoon, aswing**, i.e. 'in the act of swimming/swooning/swinging'). Nowadays this usage survives dialectally or humorously, but only if the verb-phrase has the copula auxiliary plus the main verb in the gerundial/participial form with the suffix *-ing*, always pronounced [in] in this context,¹ and written normatively with the apostrophe, *-in'*:

¹ This is usually called 'dropping the g' in deference to the orthography, but it is really substituting one nasal for another, the dental instead of the velar.

I'm just a-sittin' in the sun, a-warmin' my old bones.

They were a-runnin' and a-shoutin' like a bunch of lunatics.

•For a more classic example, we may turn again to Shakespeare:

"I killed the slave that was a-hanging thee!" (*King Lear*, Act V, Scene 3.²)

•The word **ahold** functions as a noun in expressions like 'get ahold of', i.e. get a firm grip on, a grip that lasts duratively.

Relationship of the a- "prefix" to independent prepositions in modern English

•**a-** and **on**

afire is still used, but **on fire** is now much more common.

atop is rather literary; **on top** is much more common.

•**a-** and **at**

asea is still in use, but **at sea** is much more common now. **Asea** now occurs mostly in the metaphorical sense of "bewildered".

atone 'make up for a sin' is a case where the -t of **at** survives before a vowel, since the word derives from the phrase **at one** 'in agreement'.³

asleep is now the usual and only way to express this concept, but historically it derives from a prepositional phrase like ***at sleep** or ***on sleep**.

•**a-** and **of**

akin < **of kin**

anew is said to derive from the obsolete phrase **of new**. The OED considers **afresh** to have been created later by analogy with **anew**, probably because *fresh* is of French origin.

•**a-** and **out**

aloud is still in common use, but **out loud** now seems to be overtaking it in American English.

•**a-** and **in**

abed now sounds quaint; the usual expression is **in bed**.

abloom sounds poetic; the usual expression is **in bloom**.

aflame is still in use, but **in flames** is now much more common (always with the plural form of the noun).

Conflation with other etyma

There are a number of verbs where the initial **a-** is said to derive from a different Germanic morpheme: ME **a-** 'up, out, away' < OE **â-**, a reduced form of PGmc **ar-** ~ **or-**. The prefix contributes a meaning of outer-directed or intensified action:

alight (1), **alight** (2), **aghast** 'struck by shock' < **â-** 'intensive' + **gasten** 'frighten' < **gâst** 'ghost'), **amaze**, **arise**, **arouse**, **awaken**

² Edmund Spenser (1552-1599), author of the great epic poem *The Faerie Queene*, is said to have used preverbal **a-** as an archaizing element.

³ Another case where the form with **a-** derives from two root morphemes is **alone** (< *all one*).

There is an interesting ambiguity between two different words written and pronounced the same (**alight**), both reflecting the same intensifying prefix (OE *â*) although their roots have distinct Proto-Indo-European etymologies:

alight (1) 'come to rest on' < OE *â* 'intensive' + *līhtan* 'relieve of a burden' < *līht* 'light in weight' < PIE **legwh-*;

alight (2) 'lit up' < OE *â* 'intensive' + *līhtan* 'shine' < *lêoht* 'a light' < PIE *leuk-*.

•The word **anneal** 'subject (glass or metal) to heat and a slow cooling in order to toughen it' comes from OE **on-oe:lan** 'set fire to'.

•Dozens of English words beginning with *a-* derive from Romance words reflecting the Latin prefix *ad-* 'to, toward' (or less commonly *ab-* 'from', *ex-* 'from' or *in-* 'in/on'). A small sample:

abase, **abash**, **abate**, **abet**, **abort**, **abound**, **abrade**, **abridge**, **abuse**, **abut**, **accelerate**, **acute**, **adapt**, **adept**, **adore**, **adorn**, **adroit**, **allot**, **allow**, **alloy**, **allure**, **ally**, **amass**, **amount**, **amuse**, **annex**, **anoint** (< Lat. *in-ungere* 'smear onto'), **announce**, **annoy**, **apply**, **appoint**, **arraign**, **arrange**, **arrest**, **arrive**, **ascend**, **ascribe**, **assail**, **assault**, **assay**, **assent**, **assert**, **assess**, **assets** (< Fr. *assez* 'enough (to satisfy creditors)'), **assign**, **assist**, **assuage**, **assume**, **assure**, **astonish** (< Lat. *ex-* + *tonâre* 'to thunder'), **attach**, **attack**, **attain**, **award**, **attempt**, **attend**, **attest**, **attract**, **avenge**, **avert**, **avow**.

•Some loans from French are of special interest:

across < Fr. *à croix* or *en croix*

afraid < Fr. *effrayer*

agog < Fr. *en gogues* 'in merriment'

apart < Fr. *à part*

apace < Fr. *à pas*

apiece < Eng. *a* 'indefinite article' + Fr. *pièce* 'piece'

astray < Fr. *estraier*

•As a curiosity, the word **amok** (often spelled **amuck**) 'running wild' is a loan from Malay.

*Differences and Similarities between TB *a- and English a-*

Differences:

•Both prefixal elements may be traced back to the same proto-semantic entity, though of course this is different in the two cases: *inalienable possession* for PTB, and *locative* for English.

•There are different etymological statuses among the various examples that exemplify the English preformative, but I claim that all the morphophonemic variants of the PTB prefix are etymologically related.

•In the English case the origin of the preformative is clear. In TB/ST, on the other hand, no independent morpheme can be identified as the form that was reduced to become

the prefix.

- Both prefixal elements involve nasal variants, although this is entirely accidental. In the case of English, the nasal final (as in Modern English **in** and **on**), was original, but disappeared in unstressed position. In the PTB case, on the other hand, the nasal element is claimed to be secondary, a product of "rhinoglottophilia".

- There is no particular connection with *colors* in the history of English **a-**, although this is a crucial semantic category in the case of the PTB prefix, since it has both nominal and verbal characteristics.

Similarities:

- Both stressed and unstressed variants of the prefix must be reconstructed in both the TB and English cases.

- In both TB and English, the pre-nominal use of the prefix seems to have been basic, but in both cases their privileges of occurrence widened to include pre-verbal usage as well.

- Once these prefixal elements were well established, they were generalized to be affixed to loanwords as well as to native material.

- By coincidence, both the PTB and the English prefixes have affinities to the notion of *stativity*. Something which is *inalienably possessed* stays put; something that has a locative meaning often refers to a more or less permanent position in space.