Jinghpo Prefixes ：Their Classification，Origins，for General Morphology

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## Jinghpo Prefixes: <br> Their Classification, Origins, and Implications for General Morphology

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## INTRODUCTION

The term 'prefix' in the title refers to the initial syllables in the following disyllabic Jinghpo words:

Words with a prefix

| [tfă $\left.{ }^{31} \mathrm{k}^{\mathrm{h}} \mathrm{zap}^{31}\right]$ | make sb. cry | [ $\mathrm{k}^{\mathrm{h}} \mathrm{ap}^{31}$ ] | to cry |
| :---: | :---: | :---: | :---: |
| [ a $^{31}{ }^{\text {jupp }}{ }^{55}$ ] | cause to sleep; put to bed | [jup ${ }^{55}$ ] | to sleep |
| [t5 $\int_{\text {a }}{ }^{55} \mathrm{l}^{51}$ ] | possessions | [ ${ }^{31}{ }^{31}$ ] | to have |
| [ $\left.k \breve{\breve{a r}}^{31} n u^{31}\right]$ | his mother <pron.> | [ $\mathrm{nu}^{51}$ ] | mother |
| [mă ${ }^{31}{ }^{3} \mathrm{nn}^{55}$ ] | twins | [ $\mathrm{ma}^{31}$ ] | child |
|  |  | [zun ${ }^{55}$ ] | side by side, abreast |
| [ $\mathrm{ka}^{31} \mathrm{t} f \underline{a n}^{3}{ }^{33}$ ] | black soil | [ $\mathrm{a}^{55}$ ] | earth, soil |
|  |  |  | black |
| [mă ${ }^{31} \mathrm{kui}^{33}$ ] | elephant | [ $\mathrm{kui}^{31}$ ] | dog |
| [ $\mathrm{nig}^{31} \mathrm{po}^{33}$ ] | leader | [po ${ }^{33}$ ] | head |
| [ $\int^{33} \mathrm{kan}^{33}$ ] | star | cf. Writt | betan skar ma |
| [ $\left.1 \mathrm{a}^{31} \mathrm{p}^{\text {h }} \mathrm{t}^{31}\right]$ | knee | cf. Writt | betan pus mo |
| [ $\mathrm{a}^{31}{ }^{31} \mathrm{~mm}^{33}$ ] | to help | cf. Motu | nba [rum] |

There are several reasons for identifying all the initial syllables in the left column as prefixes. 1) They appear word-initially. 2) They are bound, i.e. they cannot stand on their own. 3) These initial syllables verge on being a closed class. 4) Each one of these syllables recurs before a number of morphemes, thereby creating a set of words beginning with the same prefix but having different roots. The size of the set varies from only a few items to about 70 words in one instance and to [ [ă-], the productive causative prefix. 5) These syllables have two phonetic characteristics: (a) the syllable nucleus is always a simple vowel, never a diphthong. Moreover, this vowel is either [i], [u], or a weakened [a], i.e. the

[^0]schwa, which is transcribed with the breve as [ă] in Xu et al. (1983), and (b) these syllables fairly often begin and/or end with a nasal, such as the [nin ${ }^{31}$-] in [niy ${ }^{31} \mathrm{po}^{33}$ ] 'leader'.

Xu (1986) is the first study (at least in China) of Jinghpo prefixes. She divides them into two groups and coins a new term: prefix vs. bàn-qiánzhuì, literally 'semi-prefix'. That paper, however, offers only a preliminary treatment of the latter, and its classification is rather limited in scope. Then Dai (1993) came along to describe, and explain the origins of, semi-prefixes in more detail. He also propounds that the historical process of reducing several content morphemes into a single form in the word-initial position (i.e. a semi-prefix) signifies the simplification, motivated by the principle of economy, in the phonetic format of disyllabic words (p. 188). Departing from Xu's analysis, Part 1 of the present paper proposes a tripartite classification of Jinghpo prefixes. Furthermore, based on Dai's insight into the semi-prefix, Part 4 demonstrates the feasibility of a natural language creating new disyllabic words with a relatively small inventory of word-initial syllables, some of which are devoid of any meaning.

The three types in question are: prototypical prefixes (such as the causative ones), semi-prefixes, and look-alike prefixes. An example of the second type is the [ $\left.k \mathfrak{a}^{31}-\right]$ in $\left[k \breve{a}^{31} t \int \underline{a n}^{33}\right]$ 'bláck soil', which originates from the free morpheme [ka ${ }^{55}$ ] 'earth, soil'. An example of the last type is [ $\mathrm{a}^{31}{ }^{31} \mathrm{am}^{33}$ ] 'otter', the initial syllable of which evidently comes from the consonant cluster in its Proto-Tibeto-Burman (PTB) etymon, as reflected by the cognate in Written Tibetan (WT): sram 'otter.' (The symbol [3] in the Jinghpo transcription represents an r-colored sound; in fact, it corresponds to the letter ' $r$ ' in the orthography. Two other IPA symbols are also viable for this sound, namely [ $\mathrm{z} \neq]$ ] and [ I$]$.) Part 2 of this paper argues against Xu 's classification of a certain group of bound morphemes as a subset of semi-prefixes.

Since the origin of a prefix is a major criterion of its classification, Part 1 also illustrates the origins of each type of prefix. It first traces one of the causative prefixes in Jinghpo, i.e. the afore-mentioned [ $\int a \check{-}$-], to the *s- of the same function in PTB. As for semi-prefixes, they originate from word-initial content morphemes in what used to be genuine compounds. In relation to this, it is suggested that semiprefixes present a problem to the definition of 'compound nouns' as consisting of free morphemes. Lastly, some instances of look-alike prefixes are shown to descend from word-initial clusters in PTB, whereas others find no genetic correspondence in other Tibeto-Burman (TB) subgroups. A list of words in other TB languages cognate with Jinghpo words with a prefix is also given. Part 3 schematically delineates a few sample etymologies to reiterate the historical development of prefix morphology in Jinghpo.

With regard to data for the present study, those of the prototypical prefix are primarily from Xu (1986), while those of the semi-prefix are from Dai (1993). The English gloss of Jinghpo words provided here is based on Hanson (1906), henceforth shortened to 'Han.' after quotations from the dictionary, and Xu et al. (1983), hereafter just 'Xu et al.'. Since the former has no phonetic transcriptions,
all the Jinghpo transcriptions in this paper are from the latter dictionary.

## 1. THREE TYPES OF PREFIXES

### 1.1 Two Groups of Prototypical Prefixes

Prototypical prefixes are subdivided into two groups: causative prefixes, and prefixes which change the part of speech of the root morpheme. Both of them share the function of qualifying the root, which is the head of the word.
1.1.1 Causativization is a regular morphological process in Jinghpo. There are three causative prefixes, viz. [a-], [ $[\mathrm{in}-]$, and one with two variants: [t f ă-] before a root beginning with a voiceless fricative or an aspirated consonant, and [ $\left.\int a ̆-\right]$ elsewhere. ${ }^{1)}$ Of these three prefixes, the last one is by far the most frequent; it can attach to most monosyllabic verbs and adjectives. Note the following examples:

| Verbs, Adjectives, etc. ${ }^{2}$ |  | Causative Verbs |  |
| :---: | :---: | :---: | :---: |
| [njop ${ }^{55}$ ] | to cave in, to be dented | [ ${ }^{31}{ }^{1}$ jop ${ }^{55}$ ] | to dent |
| [pzep ${ }^{31}$ ] | [of sth.] to crack | [ ${ }^{31}$ p3ep $\left.^{55}\right]$ | crack sth. |
| [ $\mathrm{nip}^{31}$ ] | to be covered (up) | [ $\left[i^{31} \mathrm{nip}^{31}\right.$ ] | cover (up) |
| [tot ${ }^{55}$ ] | to be or go beyond | [ $\left[\mathrm{in}{ }^{31}\right.$ tot $^{55}{ }^{\text {d }}$ ] | jump or leap over |
| [ $\mathrm{k}^{\mathrm{H}} \mathrm{ap}^{31}$ ] | to cry | [t $\breve{a}^{31}{ }^{\text {k }}{ }^{\text {h }}{ }^{\text {a }}{ }^{31}$ ] | make sb. cry |
| [ $\mathrm{Sut}^{55}$ ] | to be wrong | [t $5^{\text {a }}{ }^{31}$ fut ${ }^{55}$ ] | make a mistake |
| [ $\mathrm{p}^{\mathrm{h}} \mathrm{a}^{31}$ ] | to be thin $\{=$ not thick $\}$ | [ta ${ }^{31} \mathrm{p}^{\text {ha }}{ }^{31}$ ] | make thin |
| [ $\mathrm{n}^{33}$ ] | to pass [an exam] | [ $\int^{31} \mathrm{~m}^{33}{ }^{33}$ ] | let sb. pass [an exam] |
| [ $\mathrm{a}^{33}$ ] | to be drunk | [ $\left.\breve{5}^{31} \mathrm{n}^{55}\right]$ | make sb. drunk |
| [tsai ${ }^{33}$ ] | to be clean | [ a $^{31}$ tsaia ${ }^{33}$ ] | to clean |
| [mjin ${ }^{33}$ ] | a name | [ $\widehat{a}^{31} \mathrm{~m}^{31} \mathrm{in}^{31}$ ] | to name |
| [mjam ${ }^{55}$ ] | in a ruffled manner | [ $\left[\breve{a}^{31} \mathrm{mjam}^{55}\right]$ | [hair] hang down loosely |

It has generally been accepted that ${ }^{*}$ s- was a causative prefix in PTB and that almost all TB languages show traces of this prefix. The Jinghpo causative prefix [ t ă-]/[ $[\check{a}$-] should be a reflex of this *s-. Examples from the small number of

1) Some instances of [ $\left.\int a ̆-\right]$ are in free variation with [să-] before a root morpheme beginning with [ts], for example:

| [tsa ${ }^{31}$ ] | to be damaged | [ $\left[\breve{a}^{31}{ }^{\text {tsa }}{ }^{31}\right.$ ] | $\sim\left[\mathrm{sax}^{31} \mathrm{tsa}^{31}\right]$ | to destroy |
| :---: | :---: | :---: | :---: | :---: |
| [tsam ${ }^{31}$ ] | strength, spirit | [ áa $^{31} \mathrm{tsam}^{31}{ }^{\text {l }}$ ] | $\sim\left[\mathrm{sas}^{31} \mathrm{tsam}^{31}\right]$ | to energize; |

But in the case of [tsap ${ }^{55}$ ] 'to stand', there is only [ [ $\mathrm{a}^{31}{ }^{31}$ tsap ${ }^{55}$ ] 'make sb. stand' and no [sa ${ }^{31}$ tsáp ${ }^{55}$ ] in either Hanson (1906:613) or Xu et al. (1983:720).
2) Many Jinghpo words that have the verb 'to be' in their gloss in Hanson (1906) are classified as adjectives in Xu et al. (1983), e.g., [ $\mathrm{p}^{\mathrm{h}}{ }^{31}$ ] <adj. > 'thin' (p. 272) and [tsai ${ }^{33}$ ] <adj.> 'clean' (p. 838). In Sino-Tibetan languages, an adjective by itself can generally be the predicate, so the verb 'to be' often makes a better English gloss.

Tibetan and Jinghpo cognate verbs that simultaneously show prefix causativization are given below. (The overwhelming majority of causative verbs with initial consonant cluster in Tibetan have s- as the prefix; the rest have b-, g -, d - and sporadically m - and f - [Gesangjumian 1982:31].)

| WT | Tense (if not present) | Lhasa <br> Speech in IPA | Jinghpo | Gloss |
| :---: | :---: | :---: | :---: | :---: |
| nub |  |  | [lup ${ }^{31}$ ] | [e.g. of a boat] to sink |
| snub |  |  | [ ă $^{31}$ lup ${ }^{31}$ ] | cause [e.g. a boat] to sink |
| 6k ${ }^{\text {h }} \mathbf{u r}$ |  |  | [kun ${ }^{33}$ ] | to carry on one's back; to have on one's person |
| skur |  |  | [ $\breve{a}^{31} \mathrm{kun}^{55}$ ] | cause to carry; to send [a letter] |
| gas | past |  | [ $\mathrm{ka}^{\text {P31 }}$ ] | to crack, split, break |
| bkas | past |  | [ $\breve{a}^{31} \mathrm{ka}^{\mathbf{3 1}}$ ] | cause to crack, split; to smash |
| $t c^{\text {hag }}$ ag | past |  | [pjak ${ }^{31}$ ] | to be broken |
|  |  |  | [p ${ }^{\text {hjak }}{ }^{31}$ ] | to be destroyed |
| (zig | past) |  | [pja ${ }^{\text {55 }}$ ] | [e.g. of a house] to be in ruins, fall down ${ }^{3}$ |
|  |  |  | [tsa $\left.{ }^{31}\right]$ | 'To be damaged ... [or] too roughly handled' (Han., p. 733) |
| btcag | past |  | [ $\mathrm{a}^{31} \mathrm{pjak}^{31}$ ] | to break; to put out of order |
|  |  |  | [t $\mathrm{a}^{31} \mathrm{p}^{\text {h }} \mathrm{jak}^{31}$ ] | cause to be destroyed |
| (blig | past) |  | [ á $^{31} \mathrm{pja}{ }^{\text {255 }}$ ] | cause to fall down; to demolish |
|  |  |  | [ $\breve{a}^{31}$ tsa ${ }^{31}$ ] | 'To destroy, as one's own work' (Han., p. 656) |
| bzu |  |  | [pju ${ }^{31}$ ] | to melt, dissolve |
| bzu |  |  | [ $\breve{a}^{31} \mathrm{pju}^{31}$ ] | cause to melt; to smelt ${ }^{4}$ |
| $\mathrm{fit}^{\text {hib }}$ |  |  | [nip ${ }^{31}$ ] | to be covered up; to become overcast |
| gtib |  |  | [ $\mathrm{inj}^{31} \mathrm{nip}^{31}$ ] | [of clouds] to gather and cover up ${ }^{5}$ |
| dral | past | [ $\operatorname{ss}^{\mathrm{h}} \varepsilon^{13}$ ] | [ $\mathrm{t} \mathrm{e}^{55}$ ] | T.: to get torn/ ripped; ${ }^{\text {( J J.: }}$ to tear |
|  |  |  |  | up |
| dbral | past | [ $\mathrm{r} \varepsilon^{55}$ ] | $\left[\int a^{31} t \int e^{55}\right]$ | cause [sth.] to tear |

3) The brackets around the Tibetan word zig means that even though it means '[of a house] to fall down, to be in ruins', it is unrelated to the comparison here.
4) In Yu (1983:842) 'to melt, dissolve' and 'to smelt' are two senses of a single entry, viz., bzu(r) $\sim$ zu. (Incidentally, the dictionary has recorded the future, past, and imperative forms for the latter sense, but only the present (or infinitive) form for the former.) In Goldstein (1978: 980 \& 1000), zu and bzu are two separate entries, but they have almost the same gloss. Qujizhaba (1957) has, however, zu ba for 'to melt, dissolve' (p. 738) and bzur for 'to burn, smelt' (p. 753). It is possible that the two senses were pronounced differently in ancient times.
5) The WT form cited here is in both Goldstein (1978:480) and Qujizhaba (1957:338) but not in Yu (1983:419).
6) The WT form cited here of the verb 'to get torn/ripped' is in Goldstein (1978:577) but not in Yu (1983:915).

It should, however, be pointed out that the roots in most simplex-causative verb pairs are phonetically quite different in Jinghpo and Tibetan, for example:

| WT | Jinghpo | Gloss |
| :---: | :---: | :---: |
| lay | [zot ${ }^{31}$ ] | to get up; to stand |
| sloy | [ $\breve{a}^{31} 30{ }^{31}$ ] | cause to get up |
| nal | [jup ${ }^{55}$ ] | to sleep |
| snol | [ a $^{31}{ }^{\text {jup }}{ }^{55}$ ] | cause to sleep; put to bed |
| gon | [ $\mathrm{p}^{\text {h }} \mathrm{n}^{55}$ ] | to wear |
| skon | [tfa $\left.{ }^{31} \mathrm{p}^{\text {h }} \mathrm{n}^{55}\right]$ | cause to wear; to dress |
| fik ${ }^{\text {bol }}$ | [p3ut ${ }^{31}$ ] | to be boiling |
| skol |  | to boil |
| fik ${ }^{\text {hor }}$ | [tJai ${ }^{\text {3 }}$ ] ${ }^{\text {a }}$ | [of sth.] to turn around and around |
| skor | [ $\int^{3}{ }^{31}$ t $\underline{a}^{\text {a }}{ }^{31}$ ] | to turn/spin/roll sth. |
| fit ${ }^{\text {h }}$, | [p3a ${ }^{55}$ | to separate, disband |
| gtor | [ ${ }^{3}{ }^{31} \mathrm{pza}^{55}$ ] | cause to disband, disperse |
| fitç ${ }^{\text {bad }}$ | [ $\mathrm{it}^{\text {231 }}$ ] | [e.g. of a rope] to snap, sever |
| gtcod | [ ${ }^{\text {a }}{ }^{31} \mathrm{ti}^{\text {³1 }}$ ] $]$ | cause [e.g. a rope] to snap; to sever |
| fitc ${ }^{\text {hag }}$ | [to ${ }^{231}$ ] | [e.g. of a tree branch] to break |
| gtcog | [ á $\left.^{31} \mathrm{to}^{\mathbf{2 3 1}}\right]$ | cause to break |
| fit ${ }^{\text {b }}$ or |  | to crumble, break down |
| gtor |  | to destroy, crush |

Even though many of the roots in Jinghpo and Tibetan causative verbs look unrelated, some interesting cognate cases can still be unearthed there. The pair of verbs 'to suck' and 'to suckle' is a case in point. Consider the following words:

| Gloss | WT | Jinghpo | Remarks |
| :---: | :---: | :---: | :---: |
| breasts; milk | fio ma | [t5u ${ }^{\text {255 }}$ ] |  |
|  | nu ma |  | J.: [nu ${ }^{51]}$ 'mother'\{Related?\} |
| milk <n.> <br> to suck ${ }^{\text {² }}$ | fo btcud |  | T.: btçud 'nutrition' |
|  | nu | [t5u ${ }^{\text {P5s }}$ ] |  |
|  | fidzib | [mắ $\left.{ }^{31} 3 \mathrm{n}^{31}\right]$ |  |
|  |  | [t5up ${ }^{31}$ ] | 'to suck [the finger]' |
| to breast-feed ${ }^{8}$ | snun | [ $\breve{a}^{31}$ t $\left.5 \underline{\underline{u}}^{255}\right]$ |  |
|  | blud |  |  |
|  | ster |  |  |

Both WT and Jinghpo show causativization for the pair 'to suck' and 'to breastfeed': nu vs. snun and [tju ${ }^{255}$ ] vs. [ $\breve{a}^{311} t \underline{u}^{955}$ ] respectively. But the Jinghpo root [t $\int \underline{u}^{255}$ ] is rather related to the second syllable of the Tibetan noun for 'milk', i.e.
7) The WT form nu is in Huang (1992:550) but not in Yu (1983:\#555 \& 872).
8) The WT forms snun and blud are in Goldstein (1978:\#663 \& 776) but not in Yu (1983:\#572 \& 665).
btcud, which by itself as a free morpheme means 'nutrition' in contemporary Lhasa speech. Another cognate example is the Jinghpo word for 'to fetch somebody':

| Gloss | WT | Jinghpo | Remarks |
| :---: | :---: | :---: | :---: |
| speech | skad t¢ ${ }^{\text {ha }}$ | [ $\mathrm{ka}^{31}$ ] | cf. Written Burmese (WB) [cakā ${ }^{\text {² }}$ ] |
|  |  |  | T.: skad 'sound, voice' tc ${ }^{\text {ha }}$ \{meaning unknown; a suffix?\} |
| fetch somebody | skad gton | [ $\breve{a}^{31} \mathrm{ka}^{55}$ ] | T.: gton 'do, make' |
|  |  |  | J.: cf. [[5 $\left.{ }^{31} \mathrm{ka}^{33}\right]$ speak |

Although it cannot be proven beyond doubt that the [ $\mathrm{ka}^{55}$ ] in [ $\left[\mathrm{a}^{31} \mathrm{ka}^{55}\right]$ 'to fetch' is related to $\left[\mathrm{ka}^{31}\right]$ 'speech', a similar kind of construction in Tibetan makes it seem probable.

The point here is that although Jinghpo and Tibetan have both inherited the causative category from PTB, the relevant prefixes may have attached to different PTB cognates. On the other hand, the divergence of the roots in Jinghpo and Tibetan causative verbs means that causativization as morphological process must still have been productive after PTB had split up into different subgroups.
1.1.2 The second group of prototypical prefixes changes the part of speech of the root morpheme. Before proceeding to a discussion of actual examples, a caveat is in order here: the parts-of-speech systems in Hanson (1906) and Xu et al. (1983) are very different. Accordingly, the two dictionaries often assign the same word to a different part of speech. This difference, although theoretically important for an elegant grammar of the Jinghpo language, does not significantly affect the analysis here presented. What is important is the shift in part of speech, thereby denoting a change in syntactic behavior, even though Hanson and Xu et al. may disagree on the part of speech of an individual word.

The prefixes with the most productivity in this group are the two uses of [a5s-] and the two nominalizers [ $\mathrm{t} \underline{a}^{33 / 55}$-] and [ $\int \mathrm{a}^{33 / 55}$-]. The first use of [a ${ }^{55}$-] is to go before a verb to signify repetition, e.g., [kă $\left.{ }^{31} l o^{33}\right]$ 'to do' and $\left[a^{55} \mathrm{ka}^{33} 1 o^{33}\right]$ 'to do sth. often', and $\left[\mathrm{Ja}^{55}\right]$ 'to eat ${ }^{\prime}$ and $\left[\mathrm{a}^{55} \mathrm{a}^{55}\right]$ 'to eat sth. often'. Secondly, an adjective or a verb is preceded by [ $a^{55}-$ ] and followed by [ $\left[\mathrm{a}^{31}\right]$ to produce an adverbial phrase. Note the following examples, where 'sfp' stands for 'sentence-final particle':

| [loi ${ }^{31}$ ] easy: |  |  |  |
| :---: | :---: | :---: | :---: |
| [ $\mathrm{a}^{55} \mathrm{li}^{51} \mathrm{Sa}^{31}$ | $\mathrm{p}^{\text {hă }}{ }^{55} \mathrm{zan}^{55}$ | kau ${ }^{55}$ ] | to have easily solved |
| easily | solve | perfective marker | [a problem] |
| [pui ${ }^{31}$ ] slow: |  |  |  |


| $\left[a^{55}\right.$ pui $^{51} \mathrm{fa}^{31}$ | $\mathrm{k}^{\mathrm{h}} \mathrm{om}^{33}$ ] | walk |
| :--- | :--- | :--- |
| slowly | walk slowly |  |

[kă $\left.{ }^{31} t \int^{3} \eta^{31}\right]<v .>$ to scare, frighten:

| $\left[\mathrm{a}^{55} \mathrm{ka}^{31} \mathrm{t} \mathrm{on}^{31} \mathrm{fa}^{31}\right.$ | $\mathrm{n}^{55}$ | $\mathrm{mu}^{51}$ | $\mathrm{mat}^{31}$ | $\left.\mathrm{sai}^{33}\right]$ | suddenly cannot |
| :--- | :--- | :--- | :--- | :--- | :--- |
| suddenly | not | see | perfective <br> marker | $s f p$ | be seen/found |

[lu $\left.{ }^{31}\right]$ <aux. v.> to be able to:

| $\left[\mathrm{p}^{\mathrm{h}} \mathrm{ot}^{55} \mathrm{ni}^{55}\right.$ | $\mathrm{a}^{55} \mathrm{lu}^{51} \mathrm{Ja}^{31}$ | $\mathrm{sa}^{33}$ | $3 \mathrm{it}^{31}$ | $\left.\mathrm{lu}^{33}\right]$ | You must come |
| :--- | :--- | :--- | :--- | :--- | :--- |
| tomorrow | definitely | go | sfp | particle | tomorrow! |

The two prefixes [t $\int \breve{a}^{33 / 55}$-] and [ $\int \breve{a}^{33 / 55}$-] can tag on to most monosyllabic verbs and adjectives to produce corresponding nouns, for example:

| [ $\mathrm{si}^{33}$ ] | to die | [t $\int_{\underline{a}^{33}} \mathrm{si}^{33}{ }^{\text {a }}$ ] | n. a dead person |
| :---: | :---: | :---: | :---: |
| [ $\mathrm{lu}^{31}$ ] | to have | [t $\underline{-a}^{5}{ }^{5} 1 u^{51}$ ] | n. 'Possessions; whatever may be on hand or laid by' (Han., p. 96) |
| [ $\mathrm{mu}^{33}$ ] | delicious | [t $\left.5 \underline{a}^{33} \mathrm{mu}^{33}\right]$ | n . delicious food |
| [tfe ${ }^{33}$ ] | know, understand | [ $\mathfrak{a}^{33}$ t $\int \underline{e}^{33}$ ] | n. the state of knowing how to do sth. |
| [lum ${ }^{33}$ ] | warm | [ a $^{33}{ }^{\text {l }}$ um ${ }^{33}$ ] | n . something that is warm |
| [tum ${ }^{55}$ ] | to feel | [ ă $^{55}$ tum $^{55}$ ] | n . the state of being awake |

The other prefixes in this group, although much more restricted in distribution, are theoretically more interesting. There are, for example, some other prefixes besides [ $\mathrm{t} \breve{a}^{33 / 55}$-] and [ $\left[\breve{a}^{33 / 55}\right.$-] that are also used for nominalization. Note the following words:

| [ $\mathrm{a}^{31} \mathrm{y}^{\text {d }}{ }^{31}$ ] | n. | '(from ngawk, to be silly.) |  |
| :---: | :---: | :---: | :---: |
|  |  | A foolish, silly, puerile person' | (Han., p. 18) |
| [ $\mathrm{th}^{\text {O }} \mathrm{n}^{33}$ ] | v. | leave behind | (Xu et al., p. 319) |
| [ $\mathrm{n}^{3 \mathrm{t}^{\text {h }} \mathrm{O}} \mathrm{n}^{33}$ ] | n . | legacy, inheritance | (Xu et al., p. 592) |
| [p3a ${ }^{\text {955 }}$ ] | v. | 'To be apart, severed, not close; to be forked' | (Han., p. 73) |
| [kă55 ${ }^{\text {p }}$ a ${ }^{\text {955 }}$ ] | n . | '... a fork, a crotch, as of a limb' | (Han., p. 245) |
| [ $\mathrm{pon}^{33}$ ] | v. | 'to be swelled' |  |
| [ $\mathrm{kin}^{31} \mathrm{pon}^{33}$ ] | n. | 'ridges, as made by ploughing' | (Han, p. 153) |
| [ $\mathrm{kin}^{31 \mathrm{t}} \mathrm{fum}{ }^{33}$ ] | n. | '(from chyum, to be tapering.) |  |
|  |  | The base of a hill, as seen from the top; ... a cape, a promontory' | (Han., p. 153) |
|  | v. | to shovel | (Xu et al., p. 801) |
| [lă35 ${ }^{\text {dot }}{ }^{55}$ ] | n . | '(from shawt, to scrape.) A chisel; a gauge' | (Han., p. 381) |


| [zut ${ }^{31}$ ] | v. | to wipe away | (Xu et al., p. 701) |
| :---: | :---: | :---: | :---: |
| [ ${ }^{5}{ }^{55} 30 t^{55}$ ] | n . | a brush | (Xu et al., p. 415) |
| [mă ${ }^{31} \mathrm{kap}^{31}$ ] | n . | '(from gap, to cover.) A cover, a lid' | (Han., p. 413) ${ }^{\text {9 }}$ |
| [mă ${ }^{31}$ tsun ${ }^{31}$ ] | n . | '(from tsun, to speak.) A word, command; a will, a testament' | (Han., p. 441) |
| [ $\underline{\square}_{\underline{3}}{ }^{33} \mathrm{k}^{\mathrm{ham}}{ }^{33}$ ] | n. | '(from hkam, to receive.) |  |
| [3a $\left.{ }^{\text {331 }}\right]$ | v. | A security; as for money; a bond' 'to like, be fond of, as an object of enjoyment and hence to wish, desire, long for' | (Han., p. 524) (Han., p. 563) |
| [sum ${ }^{31} 3^{231}$ ] | n. | 'Love' | (Han., p. 596) |
| [sum ${ }^{31}$ tso ${ }^{255}$ ] | n. | '(from tsaw, to like.) Love, affection' lover | (Han., p. 598) |
|  |  | sumtsaw sumra 'love, passion, lustful desires' | (Han., p. 598) |
| [ $\mathrm{fin}^{31} \mathrm{nan}^{55}$ ] | n . | '(from nan, to follow.) A body-servant; a slave, given as a part of a marriage dowry' | (Han., p. 624) |

Nominalization in Jinghpo is then interesting because besides the two major markers [t $5 \breve{a}^{33 / 55}$-] and [ $\int^{33 / 55}$-], there are a small number of minor prefixes which are, as it were, pressed into service occasionally. In this respect, Jinghpo is very different from languages that show more inflectional and derivational morphology. In the latter case, a part of speech will be marked by a (or a few) regular suffix(es), such as the -tion and -ness in English. Consequently, no general distribution pattern, such as the causative prefix [tfă-]/[fă-] going before monosyllabic verbs and adjectives, can be stated for these minor nominalizers. Insights will be gained from an explanatory and/or historical accounting for the Jinghpo phenomenon.

On the other hand, it is not uncommon for a Jinghpo prefix to convert various morphemes into different parts of speech. Take for example the prefix [a-]. In addition to being an adverbial marker, it can also turn a word into an adjective, a verb, etc.:

| [ ${ }^{33} \mathrm{t}$ 的 $\mathrm{n}^{33}$ ] | adj. | '(from chyang, to be black; ...) black, dark’ | (Han., p. 3) |
| :---: | :---: | :---: | :---: |
| [ ${ }^{31} \mathrm{k}^{\mathrm{h}} \mathrm{jep}^{55}$ ] | v. | '(from hkyep, a fragment.) |  |
|  |  | To break, as bread, into small pieces' |  |
|  | n . | 'fragments, crumbs, leavings' | (Han., p. 10) |
| [mun ${ }^{55}$ ] | v. | 'To be fine, atomical; ... (Shan.)' | (Han., p. 397) |
|  | n . | powder | (Xu et al., p. 526) |
| [ ${ }^{31}$ mun $^{55}$ ] | n . | '(from mun, to be atomical.) Small, dustlike particles' |  |

[^1]v. 'to reduce to small particles or fractions'
(Han., p. 13)

Other examples of relevant Jinghpo prefixes are ('class.' equals 'classifier’):

| [kun ${ }^{33}$ ] | v. class. adj. | carry on one's back |  |  | (Xu et al., p. 214) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| [ma ${ }^{31}$ kun ${ }^{55}$ ] |  | a load on the | ack |  | (Xu et al., p. 453) |
| [ma ${ }^{31} \mathrm{p}^{\mathrm{h}} 30^{31}$ ] |  | '(from hpraw | o be white.) |  |  |
|  |  | White; măhp | $w$ ri, white y |  | (Han., p. 430) |
|  |  | cf. 'ri hkyeng | red yarn' |  | (Han., p. 331) |
| [ $\mathrm{n}^{31} \mathrm{t}^{\mathrm{h}} \mathrm{om}^{55}$ ] | adv. | '(from htawm, to be behind.) |  |  |  |
|  |  | After, since, | hough' |  | (Han., p. 506) |
|  |  | [ ${ }^{\text {h }}$ om $^{55}$ ] <n |  |  | (Xu et al., p. 591) |
|  |  | [ $\mathrm{n}^{31} \mathrm{t}^{\text {h }} \mathrm{Om}^{55}$ ] $<$ | nj. $>$ |  | (Xu et al., p. 319) |
| [ $\mathrm{wa}^{33}$ ] | n . | tooth | [ $\left.\mathrm{ka}^{31} \mathrm{wa}^{55}\right]$ | v . | to bite |
| [ $\mathrm{k}^{\text {j }}$ [ ${ }^{31}$ ] $]$ | adv. | slantingly | [ $\mathrm{n}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{jen}^{31}$ ] | adj. | slanting, sloping |
| [ $\mathrm{nig}{ }^{33}$ ] | class. | a year's time | [ ${ }^{\text {a }}{ }^{31} \mathrm{nin}{ }^{33}$ ] | n . | year |

Based on the words listed above, another observation concerning the direction of derivation can be made. One would expect the classifier, being a new part of speech in the Jinghpo language, to be the derived item. This is true for the pair [kun ${ }^{33}$ ] <v.> 'to carry on one's back' and [mă ${ }^{31}{ }^{\text {kun }}{ }^{55}$ ] <class.> 'a back-load of'. But this expectation is contradicted by the pair [ $\left[\mathrm{a}^{31} \mathrm{nin}\right]^{33}$ ] $<\mathrm{n}$. $>$ 'year' and [nin ${ }^{33}$ ] <class.> 'a year's time'. Since the latter word corresponds to cognates meaning 'year' in other TB languages, such as Cuona Menba [nin ${ }^{55}$ ] and Bogaer Luoba [nin], it must have gone through a shift in its part of speech. Note also the semantic association between [wa ${ }^{33}$ ] 'tooth' and [kă ${ }^{31}$ wa ${ }^{55}$ ] 'to bite'. More generalizations about the shift direction can only be made by examining instances in other languages, including those genetically unrelated to Jinghpo.

### 1.2 Semi-Prefixes

(1) Semi-prefixes are weakened forms of corresponding content words. While the former are bound morphemes, the latter are mostly free. Preliminary examples of semi-prefixes are as follows:

| Prefix | <Original morphe |  | Examples | Gloss |
| :---: | :---: | :---: | :---: | :---: |
| [ $\mathrm{ka}^{31}$-] | $<\left[\mathrm{ka}^{55}\right]$ | earth, soil | [ $\mathrm{ka}^{31} \mathrm{k}^{\text {bje }}{ }^{33}$ ] | soil + red $\{=$ red soil $\}$ |
|  |  |  |  | soil + black $\{=$ black soil\} |
| [ ${ }^{\text {a }}$ as-] | $<\left[\mathrm{na}^{33}\right]$ |  | [ ${ }^{\text {a }}$ Stsop ${ }^{55}$ ] | $\begin{aligned} & \text { ear }+\left[\text { tsop }^{31}\right] \text { membrane } / \text { reed } \\ & \{=\text { eardrum }\} \end{aligned}$ |
| [ ${ }^{33}$-] | < $\mathrm{mam}^{33}$ ] the rice plant |  | [ ${ }^{33} \mathrm{nan}^{33}$ ] | paddy + new |
|  |  |  | [ $\mathrm{n}^{55} \mathrm{p}^{\mathrm{h}} \mathrm{u}{ }^{55}$ ] | $\{=$ grain of the new harvest $\}$ paddy + tree/ log |


| [num ${ }^{31}$-] | < ${ }^{\text {lam }}{ }^{33}$ ] | road | [ $\mathrm{num}^{31} \mathrm{p} 0^{231}$ ] | \{= stem of the rice plant $\}$ <br> road + separate |
| :---: | :---: | :---: | :---: | :---: |
| [mă ${ }^{31}$-] | < $\mathrm{ma}^{31}$ ] | child | [mă ${ }^{31}{ }^{3} n^{55}$ ] | child + side by side, abreast \{= twins\} |
| [wă ${ }^{33}$-] | $<\left[\mathrm{ya}^{33}\right]$ | cattle | [wăs5]am ${ }^{55}$ ] [wă55 ${ }^{\text {an }}{ }^{51}$ ] | $\begin{aligned} & o x+\text { to stroll } \\ & \{=\text { an ox on the loose }\} \\ & \text { cattle }+\left[\int \mathrm{an}^{31}\right] \text { meat }\{=\text { beef }\} \end{aligned}$ |

Prefixes in the first column from the left and words in the second column can be considered as morphemic variants, or allomorphs, of a single morpheme. This implies that the two forms are different in their pronunciation.

Semi-prefixes are different from prototypical prefixes in three regards: (a) the former originate from independent lexical morphemes, not from PTB prefixes; (b) their meaning, being lexical, is very different from the meaning of causative prefixes; and (c) it is irrelevant whether a semi-prefix changes the part of speech of the other morpheme in the same word.
(2) Semi-prefixes can go through tone sandhi. Taking [wă55 $\int \mathrm{an}^{51}$ ] 'beef' as an example, the underlying form should be 'cattle + meat' $\left[\mathrm{wa}^{33}\right]+\left[\int \mathrm{an}^{31}\right]$. This sandhi is in accordance with a phonological rule in the language, viz., $\left[{ }^{[3]}\right]+\left[{ }^{31}\right] \# \rightarrow$ $\left[{ }^{[5]}\right]+\left[{ }^{51}\right]$. For example, when [ $\mathrm{mu}^{31]}$ 'see' is preceded by [ $\mathrm{n}^{33}$ ] 'not', the resultant phrase is [ $\mathrm{n}^{55} \mathrm{mu}^{51}$ ] 'not see' (Liu 1984:9). Sandhi phenomena involving prefixes are more complicated than the general tonological rules in Jinghpo and so require discussion in a separate paper.
(3) Semi-prefixes and look-alike prefixes often show free variation. This subject will be described in more detail in Section 1.3.1. For the moment, suffice it to say that a semi-prefix can be in free variation with the content morpheme from which it derives, for example:

| [ $\mathrm{n}^{31}$-]: | $\left[\mathrm{n}^{31} \mathrm{p} 30^{\text {P31 }}\right] \sim\left[\right.$ num $\left.^{31}{\mathrm{p} 3 \mathrm{o}^{\text {931 }}}\right] \sim\left[\mathrm{lam}^{31} \mathrm{p} 3 \mathrm{o}^{\text {P31 }}\right]$ | a fork in the road; |
| :---: | :---: | :---: |
|  | [ $\mathrm{lam}^{33}$ ] road; [p30 ${ }^{\text {231 }}$ ] separate ${ }^{10}$ ) | crossroads |
| [ $\mathrm{n}^{31}$-]: | $\left[{ }^{31} \mathrm{kam}^{33}\right] \sim\left[\mathrm{ma}^{31} \mathrm{kam}^{33}\right]$ | eldest son ${ }^{11)}$ |
|  | [ma ${ }^{31}$ ] child; [ $\mathrm{kam}^{33}$ ] eldest son |  |
| [ $\mathrm{n}^{31}$-]: | $\left[n^{31} k^{\text {h }} u t^{31}\right] \sim\left[w^{31}{ }^{31}{ }^{\text {h }} u t^{31}\right]$ | smoke |

10) Hanson (1906:339) has lampraw for 'crossroads'. The word will be spelled as lampro and transcribed as [lam ${ }^{31} \mathrm{p}_{2} \mathrm{o}^{231}$ ] according to the system in Xu et al. (1983). The [p30 ${ }^{231}$ ] (or [p3o $\left.{ }^{231}\right]$ ) in 'crossroads' may be related to [p3u ${ }^{33}$ ] 'to separate', which is not an entry by itself in Xu et al., but appears in an example under the entry [ $\left.\mathrm{t}^{\mathrm{h}} \mathrm{i}\right]^{31} \mathrm{pjen}^{33}$ ] 'a smaller household, as separated from the parental family' (p. 312): [ $\mathrm{t}^{\mathrm{h} i n}{ }^{31} \mathrm{pjen}^{33} \# \mathrm{p} \underline{u}^{3}{ }^{33}$ ] '[of offspring] to divide up family property and live apart' (also in Huang 1992:440). This [p3u ${ }^{33}$ ], spelled 'pru', is not in Hanson (p. 529). (Incidentally, an underlined IPA symbol is a tense vowel.)
11) The form [ $\mathrm{ma}^{31} \mathrm{kam}^{33}$ ] is not listed as an entry in Xu et al. (1983:450), but is used in an illustration under the entry [ko $\left.{ }^{\text {²5 }}\right]$ <a locative marker $>$ : [ $\mathrm{ma}^{31} \mathrm{kam}^{33} \mathrm{ko}^{\text {p55 }}$ ] 'at the eldest son's, or in his possession' (p. 369).

| [ ${ }^{31}$-]: | [ wan $^{31}$ ] fire |  |
| :---: | :---: | :---: |
|  | [ $\mathrm{k}^{\mathrm{h}} \mathrm{t}^{31}$ ] 'To be ready, prepared, as food' (Han., p. 305) |  |
|  | $\left[\mathrm{n}^{31} \mathrm{ko}^{33}\right] \sim\left[\mathrm{nig}^{31} \mathrm{ko}^{33}\right] \sim\left[\mathrm{th}^{\text {in }}{ }^{31} \mathrm{ko}^{33}\right]$ | household |
|  | [ ${ }^{\text {bi }}{ }^{31}{ }^{31}$ ] house |  |
| [ $\mathrm{n}^{31}$-]: | [ $\mathrm{o}^{33}$ ] to lay [bricks]; establish |  |
|  | $\left[n^{31} \mathrm{k}^{\mathrm{h}} \mathrm{ut}^{31}\right] \sim\left[\mathrm{nig}^{31} \mathrm{k}^{\mathrm{h}} 3 u t^{31}\right] \sim\left[1 u y^{31} \mathrm{k}^{\mathrm{h}} 3 u t^{31}\right]$ | whetstone |
|  | [luy ${ }^{31}$ ] stone |  |
| [ ${ }^{31}$-]: | [ $\mathrm{k}^{\mathrm{h}} \mathrm{zut}^{31}$-] whetstone, as in: $\left[\mathrm{k}^{\mathrm{h}} 3 \mathrm{ut}^{31}{ }^{1}\right.$ sut $\left.{ }^{31}\right]$ a coarse whetstone |  |
|  | $\left[\mathrm{n}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{O}^{255}\right] \sim\left[\mathrm{puy}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{O}^{\text {25 }}\right.$ ] $]$ | head-cloth, turban |
|  | [pun ${ }^{31}$-] pertaining to the head <br> [ $\mathrm{k}^{\mathrm{h}} \mathrm{o}^{255}$-] head-cloth, as in: $\left[\mathrm{k}^{\mathrm{h}}{ }^{2}{ }^{255} \mathrm{t} \int \mathrm{an}^{33}\right]$ dark turban |  |
| [pa ${ }^{\text {and }}$-]: |  |  |
|  |  | womb |
|  | [ $\mathrm{pu}^{31}$ ] intestine |  |
| [wă ${ }^{33}$-]: | [ t at ${ }^{31}$ ] an animal lair made for giving birth |  |
|  | $\left[\right.$ a $\left.\left.{ }^{33} 3 u \eta^{33}\right] \sim\left[\mathrm{na}^{33} 3 u\right)^{33}\right]$ | cattle's horn |
|  | [ $\mathfrak{a}{ }^{33}$ ] cattle |  |
|  | [zuy ${ }^{33}$-] horn, as in [gun $\left.{ }^{33} \mathrm{pot}^{31}\right]$ the root of a horn |  |

Although there is a lack of concrete statistics on the relative usage frequencies of allomorphs in each set, this synchronic variation can constitute proof for the origins of semi-prefixes.
(4) Ignoring its tonal component which is not represented in the orthography, a single syllable, such as [wă-] or [n-], as a semi-prefix can trace its origins back to several content morphemes. The origins of [wă-] are as follows:

| [wă-] from: | $\left[\mathrm{Kăa}^{55} \mathrm{wa}^{55}\right]$ | bamboo <br> $\left[\mathrm{na}^{55}\right]$ | $\left[\mathrm{wa}^{33}\right]$ <br>  <br>  <br>  <br> $\left[\mathrm{na}^{33}\right]$ | cattle |
| :--- | :--- | :--- | :--- | :--- |

In the form of [wă-], the three words in the left column have been prefixed to many root morphemes to create new words, whereas the three words in the right only have limited productivity. Note the following examples:

| [wã ${ }^{31} \mathrm{t}$ [an ${ }^{33}$ ] | bamboo+black | \{=a kind of bamboo \} |
| :---: | :---: | :---: |
| [wã ${ }^{31} \mathrm{man}{ }^{33}$ ] | bamboo + purple | \{=a kind of bamboo \} |
| [wă ${ }^{31}$ pjap ${ }^{5 s}$ ] | bamboo+bush | \{=a bamboo bush\} |
| [wă ${ }^{33} \mathrm{man}^{33}$ ] | tooth + face $\{$ ? $\}$ | \{=an incisor\} |
| [ $\mathrm{wa}^{55} \mathrm{t}^{\text {bap }}{ }^{55}$ ] | tooth + layer | \{=overlapping teeth\} |
| [wă ${ }^{55}$ tap ${ }^{55}$ ] | tooth + [tap $\left.{ }^{31}\right]$ rise/protrude | \{=a tooth protruding outward\} |
| [wă ${ }^{33} \mathrm{man}^{33}$ ] | ox+corpse | \{=the corpse of an ox\} |
| [wă ${ }^{31} \mathrm{mun}^{33}$ ] | ox+hair | \{=cattle's hair\} |
| [wăs ${ }^{5} \mathrm{t}^{\text {h }} \mathrm{mm}^{55}$ ] | $\mathrm{ox}+\left[\mathrm{t}^{\text {h }} \mathrm{um}^{31}\right]$ finish/to be at the end | $\{=$ a sow which has turned barren\} |
| [ $w{ }^{\text {a }}{ }^{11} \mathrm{k}^{\mathrm{h}} \mathrm{e}^{33}$ ] | fish + red | \{=a kind of fish $\}$ |


| [wă ${ }^{31} \mathrm{kjij}^{55}{ }^{55}$ | fish + <onomatopoeia $>$ | \{=a kind of fish which squeaks like [kjik ${ }^{55}$ ]\} |
| :---: | :---: | :---: |
| [wă ${ }^{31}{ }^{\text {na }}{ }^{31}$ ] | fish + to sting | $\{=$ a kind of fish which has a prickle at both ends of the mouth $\}$ |
| [wă ${ }^{33} \mathrm{po}^{33}$ ] | corn + kernel | \{ = the kernel of the corn\} |
| [wă ${ }^{55} \mathrm{p}^{\text {bjii }}{ }^{\text {P51 }}$ ] | corn $+\left[p^{\mathbf{h}} \mathrm{ji}^{\text {231] }}\right]$ skin | \{=the skin of the corn\} |
| [ $\mathrm{wa}^{55} \mathrm{k}^{\mathrm{h}} \mathrm{O}^{2955}$ ] | corn + dry | \{=dried corn, maize\} |
|  | ax + back | \{=the back of an ax\} |
| [wă ${ }^{33} \mathrm{man}^{33}$ ] | $\mathrm{ax}+$ face | \{=the face of an ax\} |

Since the set of words beginning with 'wa-' has become much larger in size, the identity of [wă-] as a prefix has been made stronger by this reduction of several morphemes into the same orthographic form in the word-initial position. Furthermore, the multiple origins of the prefix are in general obscure to Jinghpo-speakers, who may then treat 'wa-' as a single word-formational element.

Another case similar to 'wa-' [wă-] is ' $n$ '' [n-]. Its origins are as follows:

| [ n -] from: | $\left[\mathrm{mam}^{33}\right]$ grain, <br> $\left[\right.$ sum $\left.^{31}-\right]$ iron <br> $\left[\operatorname{wan}^{31}\right]$ fire |  | $\begin{aligned} & {\left[\mathfrak{l a}^{31} \mathrm{mu}^{31}\right]} \\ & {\left[\mathrm{ma}^{31}\right]} \\ & {\left[\mathrm{man}^{33}\right]} \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| [ $\mathrm{n}^{33} \mathrm{nan}^{33}$ ] | grain+new |  | in of the ne | vest \} |  |
| [ ${ }^{55} \mathrm{sa}^{51}$ ] | grain $+\left[\mathrm{n}^{31} \mathrm{sa}^{31}\right]$ old |  | of the las | vest |  |
| [ $\mathrm{n}^{33} \mathrm{k}^{\text {hj }}{ }^{33}$ ] | grain+red |  | grain\} |  |  |
| [ ${ }^{55} \mathrm{p}^{\mathrm{h}} \mathrm{O}^{51}$ ] | grain $+\left[\mathrm{p}^{\mathrm{h}} 30^{31}\right]$ white |  | te grain\} |  |  |
| [ ${ }^{55} \sin ^{55}$ ] | sky $+\left[\sin ^{33}\right]$ dark | \{= | ning, night\} |  | $\left.\sim[n i)^{55} \sin ^{55}\right]$ |
| [ $\mathrm{n}^{31} \mathrm{lum}^{55}$ ] | sky $+\left[\mathrm{lum}^{33}\right]$ warm |  | ing |  | $\sim\left[\mathrm{nig}{ }^{31} \mathrm{lum}^{55}\right]$ |
| [ $\mathrm{n}^{31} \mathrm{p}^{\text {hon }}{ }^{55}$ ] | sky + [of the sky] to be clear |  | y/sunny |  | $\sim\left[n i y^{31} \mathrm{p}^{\mathrm{h}} \mathrm{on}^{55}\right]$ |
| [ $\mathrm{n}^{31}$ tup $^{31}$ ] | iron+to hit |  | lacksmith\} |  | $\sim\left[\mathrm{nig}^{31}\right.$ tup $\left.^{31}\right]$ |
| [ $\mathrm{n}^{31} \mathrm{tup}^{55}$ ] | iron + a little blunt | \{=a | lunt knife/n |  | $\sim\left[\mathrm{nin}^{31}\right.$ tup ${ }^{55}$ ] |
| [ $\mathrm{n}^{31} \mathrm{f}^{311}$ ] | iron + little ${ }^{13}$ ) | \{= | ll knife \} |  | $\sim\left[\operatorname{nig} \mathrm{g}^{31} \mathrm{j}^{\mathrm{i}^{31}}\right]$ |
| [ $\mathrm{n}^{31} \mathrm{paj}^{33}$ ] | child $+\left[\mathrm{pja}^{\text {P55 }}\right]$ destroy ${ }^{14}$ | \{= | carriage\} |  |  |
| [ $\mathrm{n}^{31} \mathrm{kji}^{\text {³3 }}$ ] | child + ? | \{=i | gitimate child |  | $\sim\left[\mathrm{nin}{ }^{31} \mathrm{kji}^{331}\right]$ |
| [ $\mathrm{n}^{31} \mathrm{kam}^{33}$ ] | child+eldest son | \{= | est son\} |  | $\sim\left[\mathrm{ma}^{31} \mathrm{kam}^{33}\right]$ |

 as in [sum ${ }^{31} \mathrm{tu}^{33}$ ] 'a hammer', and it is cognate with corresponding words in other TB languages: Qiang [su: ${ }^{\mathrm{mu}}$ ], Gyarong [ $\left.\int \mathrm{am}\right]$, and Shixing [ $\left[\mathrm{s}^{35}{ }^{35}\right.$.
13) $\left[-\mathrm{j}^{\left.\mathrm{j}^{31}\right]}\right.$ is a bound morpheme as in [pu $\left.{ }^{31} \mathrm{j}^{\mathrm{i}^{31}}\right]$ intestine + little $\{=$ small intestine $\}$ and $\left[\mathrm{k}^{\mathrm{h}} \mathrm{a}^{231} \int_{\left.\mathrm{i}^{31}\right]}\right]$ river + little $\{=$ brook $\}$. Incidentally, the latter word as an entry is printed as two words in Xu et al. (1983:236), i.e. hka shi, but as one word in Nhkum et al. (1981:743), i.e. hkashi.
14) Hanson (1906:484) suggested that [ $\mathrm{pja}^{33}$ ] in $\left[\mathrm{n}^{31} \mathrm{pja}^{33}\right.$ ] was related to [ $\mathrm{pja}{ }^{255}$ ] 'to be destroyed'. But it may come from [pja ${ }^{31}$ ], glossed as 'to run, spout, as water from a spout ...; to run, as a sore; ... to hang, as a streamer' by Hanson (p. 78), but as '[of sticky substance or soft things] to flow downward' in Xu et al. (1983:75).

```
[ \(\left.{ }^{31} \mathrm{p}^{\mathrm{h}} \mathrm{HO}^{55}\right]\) face + features/looks \(\quad\{=\) face/look of a dead body \(\}\)
\(\left[\mathrm{n}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{ut}^{31}\right]\) fire + to be cooked/done \(\{=\) smoke \(\}\)
```

(5) The pronunciation of all semi-prefixes is different from their respective original morphemes, so native speakers of Jinghpo, as previously suggested, may not know the diachronic development of these prefixes. This accounts for the following polysyllabic phrases in which there are two morphemes having the same meaning:

```
[wa`3}\mp@subsup{}{}{3
[pa }\mp@subsup{}{}{55}\mp@subsup{w}{}{5}\mp@subsup{}{}{31}lun\mp@subsup{}{}{55}
[wă31] }3\mp@subsup{a}{}{31}\mathrm{ ]
[\etaa }\mp@subsup{}{}{55}\mp@subsup{wa}{3}{31}\mp@subsup{3}{}{3}\mp@subsup{a}{}{31}
[wă33na }\mp@subsup{}{}{33}\mathrm{ ]
[na }\mp@subsup{}{}{33}\mp@subsup{wa}{3}{33}n\mp@subsup{a}{}{33}
[wă55tik }\mp@subsup{}{}{55}\mathrm{ ]
[wa 33 wă55tik k5]
[wă }\mp@subsup{}{}{33}\mp@subsup{p}{}{\textrm{h}}3\mp@subsup{a}{}{33}
```



```
[pa \({ }^{55}\) ] fish \(+\left[l u n^{55}\right]\) 'to rise, as smoke' (Han., p. 349)
```

[pa ${ }^{55}$ ] fish $+\left[l u n^{55}\right]$ 'to rise, as smoke' (Han., p. 349)
$\{=$ a school of fish swimming upstream to breed $\}$
$\{=$ a school of fish swimming upstream to breed $\}$
meaning the same as [wă ${ }^{31}$ lun ${ }^{55}$ ]
meaning the same as [wă ${ }^{31}$ lun ${ }^{55}$ ]
[ $\mathrm{na}^{55}$ ] fish + ? $\{=\operatorname{carp}\}$
[ $\mathrm{na}^{55}$ ] fish + ? $\{=\operatorname{carp}\}$
carp
carp
[ $\mathrm{na}^{33}$ ] cattle + ear $\{=$ cattle's ear $\}$
[ $\mathrm{na}^{33}$ ] cattle + ear $\{=$ cattle's ear $\}$
cattle's ear
cattle's ear
[wa $\left.{ }^{33}\right]$ tooth $+\left[\right.$ tik $\left.{ }^{55}\right]$ to be tight together
[wa $\left.{ }^{33}\right]$ tooth $+\left[\right.$ tik $\left.{ }^{55}\right]$ to be tight together
$\left\{=\right.$ to gnash [the teeth] ${ }^{15)}$
$\left\{=\right.$ to gnash [the teeth] ${ }^{15)}$
to gnash the teeth
to gnash the teeth
corn + plot $\{=$ cornfields $\}$
corn + plot $\{=$ cornfields $\}$
([wã $\left.{ }^{33}\right]$ perhaps from the 2 nd syllable in $\left[\mathrm{k}^{\mathrm{h}} \mathrm{ai}^{55}{ }^{5} \mathrm{nu}^{33}\right]$ )
([wã $\left.{ }^{33}\right]$ perhaps from the 2 nd syllable in $\left[\mathrm{k}^{\mathrm{h}} \mathrm{ai}^{55}{ }^{5} \mathrm{nu}^{33}\right]$ )
[ $\mathrm{k}^{\mathrm{h}} \mathrm{ai}^{55} \mathrm{nu}^{33}$ ] corn $+\left[w{ }^{33}{ }^{\mathrm{h}} \mathrm{p}^{\mathrm{h}} \mathrm{a}^{33}\right]$ cornfields $\{=$ cornfields $\}$

```
[ \(\mathrm{k}^{\mathrm{h}} \mathrm{ai}^{55} \mathrm{nu}^{33}\) ] corn \(+\left[w{ }^{33}{ }^{\mathrm{h}} \mathrm{p}^{\mathrm{h}} \mathrm{a}^{33}\right]\) cornfields \(\{=\) cornfields \(\}\)
```

In the first three cases above, a tri-syllabic compound has been formed in which the first syllable means the same as the second one. As for the fourth case, the verb 'to gnash [the teeth]' itself was originally a compound of two free morphemes, i.e. $\left[\mathrm{wa}^{33}\right]$ and [tik ${ }^{55}$; now it can take [wa $\left.{ }^{33}\right]$ 'tooth' as its object.
(6) Words with a semi-prefix are mostly nouns consisting of two elements. These words present a problem for applying the term 'compound' to Sino-Tibetan (ST) languages, for there seems to be no clear-cut answer to the question of whether they are compounds or not. One reason for saying yes is that some semi-prefixes do have a pronunciation close to their respective origins, such as:

| [kă-] | < [kas ${ }^{55}$ | soil | [wă-] |  | bamboo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| [lă-] | $<\left[\mathrm{na}^{33}\right]$ | ear | [wă-] | < [wa ${ }^{33}$ ] | tooth |
| [mă-] | < $\mathrm{ma}^{31}$ ] | child | [wă-] | < [ $\left.\mathrm{n}^{31} \mathrm{wa}^{33}\right]$ | ax |
| [num-] | < [lam ${ }^{33}$ ] | road |  |  |  |

Native speakers would therefore know the separate meanings of the constituents in disyllabic words with the above prefixes. But on the other hand, there are a few arguments for saying that even though words with a semi-prefix were once compounds, they are, synchronically speaking, compounds no more. In the first place,

[^2]they are not so by definition. Crystal (1991) defines the term 'compound(ing)' as follows:

> A term used widely in descriptive linguistic studies to refer to a linguistic unit which is composed of elements that function independently in other circumstances. Of particular currency are the notions of compounding found in 'compound words' (consisting of two or more free morphemes, as in such 'compound nouns' as bedroom, rainfall and washing machine) and 'compound sentences'... [p. 70 , with emphasis for the first two italic words added]

A compound noun is made up of free morphemes, but Jinghpo words with a semiprefix are not. Secondly, Jinghpo speakers may not know the origins of semiprefixes whose weakened phonetic form is very different from the pronunciation of the original full morphemes. If the meaning of the first syllable is obscure, just like the word 'cranberry' in English, then the term 'compound' does not apply. Lastly, there exists a contrast between compounding and prefix word-formation in Jinghpo, as shown by the following examples:

| [ $\mathrm{ma}^{33}$ ] | cattle | [wa ${ }^{33} \mathrm{p}^{\text {b }}$ u $)^{33}$ ] | cattle + group $\{=$ a herd of cattle $\}$ |
| :---: | :---: | :---: | :---: |
| [ woi $^{33}$ ] | monkey | [ wid $^{33} \mathrm{p}^{\text {h }} \mathrm{ul}^{33}$ ] | monkey + group $\{=$ a group of monkeys $\}$ |
|  |  | [was ${ }^{55}$ jan ${ }^{51}$ ] | cattle + meat $\{=$ beef $\}$ |
| [ $\mathrm{wa}^{\text {P31 }}$ ] | pig | [ $\mathrm{wa}^{\text {P31 }}$ fan ${ }^{31}$ ] | pig + meat $\{=$ pork $\}$ |
|  |  | [ $\mathrm{wa}^{331} 3^{3} \mathrm{~m}^{55}$ ] | pig + pestilence $\{=$ hog cholera, swine fever $\}$ |
|  |  | [wă5s ${ }^{\text {uium }}{ }^{55}$ ] | cattle + pestilence $\{=$ cattle cholera\} |
| [ $\mathrm{a}^{55}$ ] | tooth | [ a $^{55} 3 \mathrm{um}^{51]}$ | tooth $+\left[z^{3}{ }^{31}\right]$ all fallen $\{=$ to have no teeth $\}$ |

The bound forms [wă ${ }^{33}$ ]] and [wă55-], respectively reduced from [ $\mathrm{ya}{ }^{33}$ ] 'cattle' and [ $\mathrm{Ha}^{55}$ ] 'tooth', are prefixes, whereas the free morphemes [wa ${ }^{331}$ ] 'pig' and [ $\mathrm{woi}^{33}$ ] 'monkey' are not. Orthographically, words like 'beef' and 'herd of cattle' are written as one word (washan, wahpung), but compounds like 'pork' and 'group of monkeys' as two (wa shan, woi hpung). ${ }^{16}$
(7) The word-internal relationship between the semi-prefix and the following morpheme also deserves comment. A distinction can first be made between a qualifying and a non-qualifying relationship. For the former, there is a further distinction in the direction of the qualification. Take for example the word [wǎ ${ }^{33}$ $\operatorname{man}^{33}$ ] ox + corpse $\{=$ the corpse of an ox$\}$, the second syllable is naturally the head of the word. This progressive qualification generally occurs when the second syllable is a noun. Then there are words like [wă ${ }^{31} \mathrm{k}^{\mathrm{h} j e}{ }^{33}$ ] 'fish + red', which is the name of a kind of fish, and $\left[\mathrm{n}^{55} \mathrm{sa}^{51}\right]$ grain + old $\{=$ grain of the last harvest $\}$. This
16) This orthographic convention has not been strictly followed, however. For example, the Jinghpo compound nga rung, literally 'cattle + horn', is printed as two words as an entry in Xu et al. (1983:575), but as one word in an illustration under the entry nhtau 'bugle' in the same dictionary ( p .590 ): ngarung nhtau $\left[\mathrm{na}^{33} \mathrm{zun}^{33} \mathrm{n}^{31} \mathrm{t}^{\text {h }}\right.$ au ${ }^{31}$ ] 'bugle made from a cattle horn'.
regressive qualification occurs when the second syllable is an adjective. Interestingly enough, although the prefixes are the semantic head here, they are phonetically less prominent than the second syllable. There exists, therefore, an incongruity between the semantic and the phonetic level.

The two types of qualification just described parallel the relevant constructions in Jinghpo syntax. For example, nouns used attributively precede the qualified noun, such as [kum ${ }^{31} \mathrm{p}^{\mathrm{h}} 30^{31} \mathrm{la}^{55} \mathrm{k}^{\mathrm{h}}$ on ${ }^{51}$ ] silver + bracelet $\{=$ a silver bracelet $\}$ (Nhkum et al. 1981: 892) and [tsap ${ }^{55} \int \mathrm{a}^{31} \mathrm{kzi}^{31}$ ] bear + gall bladder $\{=$ the gall bladder of the bear\} (Xu et al. 1983:740). On the other hand, an adjective by itself as a qualifier (i.e. without any function word) comes after the noun, such as [ $\mathrm{k}^{\mathrm{h}} \mathrm{a}^{931} \mathrm{ka}^{31} \mathrm{pa}^{31}$ ] literally 'river + big', but [kzai $\left.{ }^{31} \int \breve{a}^{33} 3^{33} \mathrm{ea}^{33} \mathrm{mă}^{31} \mathrm{fa}^{31}\right]$ literally 'very brave <particle > person' (Xu et al. 1983:961).

In a small number of cases, the second syllable is a predicate. The semi-prefix, which always derives from nominal words, can then be either the agent or the patient involved. Examples for the former are:

| [wă ${ }^{3}{ }^{\text {kjijk }}{ }^{55}$ ] | fish + <onomatopoeia $>$ | \{=a kind of fish which squeaks like [kjik ${ }^{55}$ ] |
| :---: | :---: | :---: |
| [wă ${ }^{31} \mathrm{na}^{31}$ ] | fish + to sting | $\{=a$ kind of fish having a prickle at both ends of the mouth $\}$ |
| [wă ${ }^{31}{ }^{\text {lun }}$ [ ${ }^{\text {] }}$ | fish + to rise | $\{=$ a school of fish swimming upstream to breed\} |

Examples for the latter are:

$$
\begin{array}{lll}
{\left[\mathrm{n}^{55} \text { tat }^{55}\right]} & \text { grain }+\left[\text { tat }^{31}\right] \text { put down } & \{=\text { sowing in the spring }\} \\
{\left[\text { wás }^{55} \tan ^{55}\right]} & \text { ox }+ \text { to block } & \text { \{=a fence for blocking out cattle }\}
\end{array}
$$

Since almost all TB languages are SOV languages, it is not surprising that in a unit of 'noun + verb', the noun can be the agent or the patient.
(8) Some prefixes, such as the 'wa-' for 'bamboo', 'cattle' and 'fish', are very productive while others, such as the 'wa-' for 'ax', appear only in a few words. For example, there are about 70 entries beginning with the prefix 'wa-' qua 'cattle' in Xu et al. (1983: 859-77), including words like:

| [wă ${ }^{5} \mathrm{k}^{\text {h }}$ jis ${ }^{\text {S }}$ ] | cattle + feces | \{=cattle's excrement $\}$ |
| :---: | :---: | :---: |
| [was ${ }^{5} \mathrm{kjip}{ }^{55}$ ] | cattle $+\left[\mathrm{kjip}^{31}\right]$ dried \& |  |
|  | sunken | \{ $=\mathbf{a}$ thin ox\} |

but excluding tetra-syllabic expressions such as:

|  | cattle's and pigs' excrement |
| :---: | :---: |
| [wă ${ }^{55} \mathrm{kjjip}{ }^{55}$ wă ${ }^{55}$ kapp ${ }^{55}$ ] | <generic n.> skinny cattle |
| ([kap ${ }^{55}$ ] does not mean | ds there only to make up the tetra-syllabic pattern |

There are two reasons, one linguistic and one social, for the productivity of some prefixes but not others. 1) Unlike English which has completely different names for different kinds of fish (as an example), ST languages in general use compounds for fish names which consist of a qualifier of some kind plus the word for 'fish'. In the case of Jinghpo, this latter component has further developed into a semi-prefix, for example:

| [wã ${ }^{31} \mathrm{k}^{\text {h }} \mathrm{j}^{33}{ }^{\text {a }}$ ] | fish+red | \{=a kind of fish\} |
| :---: | :---: | :---: |
| [wă ${ }^{31} \mathrm{li}^{33}$ ] | crucian carp. | ([lai $\left.{ }^{33}\right]$ meaning not clear) |

2) It appears that the physical environment in which the Jinghpo people live, as well as their customs, explains why they have separate words for things related to bamboo and cattle, while other peoples do not, e.g., [wă ${ }^{31} \mathrm{sum}^{33}$ ] bamboos that have died after flowering, [ $w \breve{a}^{31} k^{\text {h}}{ }^{\prime} p^{55}$ ] a 'split bamboo, used as stocks for prisoners', and [wă ${ }^{31} 1 u^{31}$ ] a 'kind of bamboo, mostly used for joists' (Han., p. 45). (The meanings of the second syllable of these three words are all unknown.)
(9) The present section ends with a special case of semi-prefix, viz., the $\left[\mathrm{n}^{33}\right.$-] from [nan ${ }^{33}$ ] 'you-sing'. Almost all kinship terms in Jinghpo, such as [nu ${ }^{51}$ ] 'mother' and $\left[p^{h} u^{51}\right]$ 'brother', 'decline' for person in the singular possessive pro-form, and some kinship terms as dual pronouns also decline for person. Look at the following words:

| Direct address: | [ $\left.n u^{51}\right] \sim\left[a^{55} \mathrm{nu}^{51}\right]$ | mother |
| :---: | :---: | :---: |
|  | $\left[p^{\text {b }}{ }^{51}\right] \sim\left[a^{55} p^{\text {b }} u^{51}\right]$ | brother |
| General (= generic) use: | [ $\mathrm{k} \breve{a}^{31} \mathrm{nu}^{31}$ ] | mother |
|  | [ $\mathrm{a}^{31} \mathrm{p}^{\text {b }} \mathbf{u}^{31}$ ] | brother |
| 1st pers. poss. sing.: | [ $\mathrm{nai}^{33} \mathrm{nu}^{31}$ ] | my mother |
|  | [ $\mathrm{nai}^{33} \mathrm{p}^{\mathrm{h}} \mathrm{u}^{31}$ ] | my brother |
| 2nd pers. poss. sing.: | [ $\left.n^{55} \mathrm{nu}^{51}\right] \sim\left[\mathrm{nin}^{55} \mathrm{nu}^{51}\right]$ | your mother |
|  | $\left[\mathrm{n}^{55} \mathrm{p}^{\text {h }}{ }^{51}\right] \sim\left[\mathrm{nin}^{55} \mathrm{p}^{\text {b }} \mathrm{u}^{51}\right]$ | your brother |
| 3rd pers. poss. sing.: | [ $\mathrm{k}^{31} \mathrm{nu}^{31}$ ] | his mother |
|  | [ka ${ }^{31} \mathrm{p}^{\text {h }} \mathbf{u}^{31}$ ] | my brother |
| 1st pers. dual: | [ $\mathrm{an}^{55} \mathrm{nu}^{51}$ ] | my mother and I |
|  | [ $\mathrm{n}^{55} \mathrm{p}^{\text {h }} \mathrm{u}^{51}$ ] | my brother and I |
| 2nd pers. dual: | [ $\mathrm{nan}^{55} \mathrm{nu}^{51}$ ] | your mother and you-sing. |
|  | [ $\mathrm{nan}^{55} \mathrm{p}^{\text {h }}{ }^{51}$ ] | your brother and you-sing. |
| 3rd pers. dual: | \left. [ ${a n^{55}}^{5} \mathrm{nu}^{31}\right]$ | his/her mother and s/he |
|  | [ $\int \mathrm{an}^{55} \mathrm{p}^{\text {h }}{ }^{51}$ ] | his/her brother and s/he |

Four of the seven prefixes above are pronouns by themselves, as shown by the paradigm below:

|  | Singular <br> 1st pers. pron. | Dual |
| :--- | :--- | :--- |
| 2nd pers. pron. | $\left[\mathrm{ai}^{33}\right]$ | $\left[\mathrm{an}^{55}\right]$ |
| 3rd pers. pron. | $\left[\mathrm{na}^{33}\right]$ | $\left[\mathrm{nan}^{35}\right]$ |
| 3rd pers. pron. (colloq.) | $\left[\mathrm{k}^{\mathrm{h}} \mathrm{ji}^{33}\right]$ | $\left[\mathrm{an}^{55}\right]$ |
| $\left[\mathrm{k}^{\mathrm{h}} \mathrm{an}^{55}\right]$ |  |  |

The other three prefixes that are not identical to independent pronouns include the [ $\mathrm{a}^{55}$-] used in addressing the relative directly, the [kă ${ }^{31}$-] in kinship terms used without specific reference and in the 3rd person singular possessive (perhaps related to the colloquial forms of the 3 rd person pronouns $\left[\mathrm{k}^{\mathrm{h} j}{ }^{33}\right]$ and $\left[\mathrm{k}^{\mathrm{h}}{ }^{5}{ }^{55}\right]$ ), and the [ $\mathrm{n}-\mathrm{]} \sim$ [nin-] in the 2nd person singular possessive. While the first two morphemes are prototypical prefixes, the last one is a borderline case between the semi- and the prototypical prefix. On the one hand, it is clear that [ $\mathrm{n}-\mathrm{]} \sim$ [niy-] originates from the second person singular pronoun [naj ${ }^{33}$ ] you. This is the trait of semi-prefix. But on the other hand, the second syllable in prefixed kinship terms is clearly the head of the word and the possessive meaning of the initial syllable leans away from the pure lexical meaning of semi-prefixes. These two factors make it not all unreasonable to classify [n-] $\sim[n i \eta-]$ as a prototypical prefix in a purely synchronic analysis of morphology in Jinghpo kinship terms.

### 1.3 Look-alike Prefixes

Roughly speaking, prefixes that are neither prototypical nor semi- are lookalike prefixes. ('Look-alike' is hereafter abbreviated to 'LA'.) This last type of prefix is different from the first two in several ways. To begin with, words having a semi-prefix are almost all nouns, whereas words containing a LA prefix belong to various parts of speech. Second, the origins of LA prefixes are not yet completely known. What is certain is that some of them did come from initial consonant clusters in PTB. Third, a LA prefix itself has no meaning at all. As for the other syllable in a word with a LA prefix, it may not have any meaning either. For example, both syllables in words like [mă ${ }^{31}{ }^{1} \mathbf{i}^{33}$ ] 'four', [num $\left.{ }^{31} 1 a^{33}\right]$ 'soul', and $\left[k{ }^{5}{ }^{55} z^{3}\right.$ a ${ }^{55}$ ] 'hair on the head' lack a meaning of their own. If the syllable following a LA prefix does have meaning, then it is usually synonymous with the word consisting of the two syllables in question. Look at these examples:


More importantly, the three prefixes above, i.e. [lă ${ }^{55}$-], [ $n^{33}$-] and [mă ${ }^{31}$-], do not qualify the second syllable in any way. Accordingly, while words with a prototypical prefix or a semi-prefix have a morphological head, words with a LA
prefix do not.
The LA prefix, however, shares the general attributes of Jinghpo prefixes as laid out at the beginning of this paper. In addition, the former was once a means to enlarge the Jinghpo lexicon, a function common to all three types of prefixes. The next few sections dwell on the free variation cases and origins of LA prefixes.

### 1.3.1 Free variation of Jinghpo prefixes

LA prefixes show more instances of free variation than semi-prefixes do. For the sake of presentation, three types of cases can be distinguished. They are as follows:
(1) In general, the form [ $\mathrm{n}-\mathrm{]}$, be it a semi- or a LA prefix, is in free variation with [nin-]:

| [ $\mathrm{n}^{31} \mathrm{ko}^{33}$ ] | $\sim\left[\mathrm{nin}^{31} \mathrm{ko}^{33}\right]$ | $\sim\left[\mathrm{t}^{\text {hi }} \mathrm{i}^{31} \mathrm{ko}^{33}\right]$ |  |
| :---: | :---: | :---: | :---: |
| [ ${ }^{31} \mathrm{ma}^{31}$ ] | $\sim\left[\mathrm{nig}^{31} \mathrm{ma}^{31}\right]$ |  | <n.> wound |
| [ $\mathrm{n}^{31} \mathrm{nan}^{33}$ ] | $\left.\sim[n i)^{31} \mathrm{nan}^{33}\right]$ |  | new |
| [ ${ }^{31}$ tat $^{31}$ ] | $\sim\left[\mathrm{nin}^{31} \mathrm{tat}^{31}\right]$ |  | to set up [an appointment] |
| [ ${ }^{31}$ tsam $^{33}$ ] | $\sim\left[\mathrm{nig}^{31} \mathrm{tsam}^{33}\right]$ |  | $<\mathrm{n} .>$ slanting rain; <v.> to rain slantingly, as coming into the room |

A major exception to the rule is the semi-prefix [ n -] from [mam ${ }^{33}$ ] 'the rice plant'. Words like [ $\mathrm{n}^{55} \mathrm{p}^{\text {h }} \mathrm{n}^{55}$ ] 'stem of the rice plant' and [ $\mathrm{n}^{33}$ nan ${ }^{33}$ ] 'grain of the new harvest' have no variant forms like [nin ${ }^{55}$ phun ${ }^{55}$ ] and [nin ${ }^{33}$ nan ${ }^{33}$ ] respectively in either Hanson (1906) or Xu et al. (1983).
(2) The prefix [ $\mathrm{n}-\mathrm{]}$ can also be in free variation with other prefixes, for example:

| [ $\mathrm{n}^{31} \mathrm{pzo}^{231}$ ] | $\sim\left[\mathrm{num}^{31} \mathrm{pzo}^{\text {P31 }}\right]$ | $\sim\left[\mathrm{lam}^{31} \mathrm{p3O}^{\text {P31 }}\right]$ | crossroads ([lam ${ }^{33}$ ] road) |
| :---: | :---: | :---: | :---: |
| [ ${ }^{55} \mathrm{p}^{\text {h }} \mathbf{u}^{51}$ ] | $\sim\left[\mathrm{num}^{55} \mathrm{p}^{\text {h }}{ }^{51}\right]$ |  | dust, dirt |
| [ $\mathrm{n}^{33} \mathrm{k}^{\text {b }}{ }^{33}$ ] | $\sim\left[t 5 i n^{33} \mathrm{k}^{\text {ha }}{ }^{33}\right]$ |  | door |
| [ $\mathrm{n}^{55} \mathrm{t}$ [ut ${ }^{55}$ ] | $\sim\left[f i i^{55} \mathrm{t} u \mathrm{t}{ }^{55}\right]$ |  | corner, nook |

All the words beginning with [n-] cited up to here, including those in Section 1.2, clearly show that the prefixes in free variation with [ $\mathrm{n}-$ ] usually have a nasal as the initial and/or final consonant in the syllable.
(3) Some LA prefixes are in free variation with zero prefix. That is to say, the other syllable in a word with a LA prefix can stand alone to convey the same meaning as the whole word, for example:

| [ ${ }^{31} \operatorname{man}^{33}$ ] | $\sim\left[\mathrm{man}^{33}\right]$ |  | face |
| :---: | :---: | :---: | :---: |
| [ ${ }^{31} \mathrm{mun}^{55}$ ] | $\sim\left[\mathrm{mun}^{55}\right]$ | $\sim\left[\int \mathrm{in} 5{ }^{55} \mathrm{mun}^{55}\right]$ | powder |
| [ ${ }^{31} \mathrm{sun}^{55}$ ] | $\sim\left[\right.$ sun ${ }^{55}$ ] |  | worth, use |
| [ ${ }^{31}{ }^{\text {tsip }}{ }^{55}$ ] | $\sim\left[t s i p^{55}\right]$ |  | 'nest, as of a bird' (Han., p. 673) |


| [ ${ }^{31}$ soi $^{33}$ ] | $\sim\left[\mathrm{soi}^{33}\right]$ |  | peep at |
| :---: | :---: | :---: | :---: |
| [ $\mathrm{n}^{31} \mathrm{mai}^{31}$ ] | $\sim\left[\mathrm{mai}^{31}\right]$ | $\sim\left[\mathrm{nin}{ }^{31} \mathrm{mai}^{31}\right]$ | tail |
| [ $\left.{ }^{31} 3^{3{ }^{31}}\right]$ | $\sim\left[3^{131}\right]$ |  | spear |
| [ ${ }^{31} \mathrm{ti}^{\text {P31 }}$ ] | $\sim\left[\mathrm{ti}^{331}\right]$ |  | pot |
| [ $\mathrm{n}^{31} \mathrm{tuk}^{55}$ ] | $\sim\left[t \underline{1}{ }^{55}\right]$ | $\sim\left[\mathrm{nig}^{31}\right.$ tuk $\left.{ }^{55}\right]$ | poison |
| [ $\mathrm{nam}^{31} \mathrm{lap}^{31}$ ] | $\sim\left[\mathrm{lap}^{31}\right]$ |  | leaf |
| [tum ${ }^{31}$ pjon ${ }^{33}$ ] | $\sim\left[\right.$ pjon $\left.^{31}\right]$ |  | side by side |
| [ $\mathrm{in}^{31} \mathrm{t} \mathrm{On}^{33}{ }^{33}$ ] | $\sim\left[t \mathrm{So}^{33}\right]$ |  | to compete |
| [ $\mathrm{a}^{31} \mathrm{~kat}^{31}$ ] | $\sim\left[\mathrm{kat}^{31}\right]$ |  | to run |

Several points should be noted here. First, the LA prefix does not change the meaning and part of speech of the following syllable. Second, since there is a general trend in ST languages toward disyllabification, the variant with a LA prefix should be more recent than the one without. Third, many disyllabic variants are used in literary writings, like lyrics, proverbs, and traditional stories, which pay more attention to rhythm and euphony. The most productive prefix used for this purpose is $\left[\mathrm{a}^{31}-\right]$. It can go before all monosyllabic nouns, such as $\left[\mathrm{po}^{33}\right] \sim\left[\mathrm{a}^{31} \mathrm{po}^{33}\right]$ 'head' and [pum ${ }^{31}$ ] $\sim\left[{ }^{31}\right.$ pum $^{31}$ ] 'hill'.

Literary variants are marked with the label <lit. use> in Xu et al. (1983). Look at the following pairs of synonymous words:
P. \# in Xu et al. for the label
<lit. use>
p. 816
p. 509
p. 260
[sum ${ }^{31} t^{\text {h }} n^{33}$ ]
[sum ${ }^{31}{ }^{1}{ }^{33}$ ]
[ $\mathrm{ma}^{31}{ }^{11} \mathrm{tup}^{31}$ sum $^{31} \mathrm{tu}^{33}$ ]
[ten ${ }^{31}$ ]
Word pairs

$$
\left[t^{\mathrm{h}} n^{33}\right]
$$

[mă ${ }^{31} \operatorname{ten}^{31}$ ]
[mă ${ }^{31} \mathrm{k}^{\mathrm{h}} \mathrm{unn}^{33}$ ]
[k $\mathrm{k}^{\mathrm{h}} \mathrm{un}^{33}$ ]

Gloss
' $\nu$. To return; to revert, to turn around' ' $a d v$. up side down; turned around' (Han., p. 681)
'To reverse, return' (Han., p. 598); $n$. in Xu et al.
hammer ( Xu et al., p. 816)
hammer
time (Xu et al., p. 830)
time
'A path, track, made by small animals'
'A path;... (probably the original word for road)' (Han., pp. 422 \& 326)

Although it is the variant with a prefix that is usually marked with <lit. use>, occasionally it is the other way round, like the last pair of words quoted above.

### 1.3.2 Instances of LA prefixes originating from clusters in PTB

The WT cognates of some Jinghpo words with a prefix have an initial consonant cluster. Since WT reflects the ancient form of the Tibetan language (ca. 7th
century) and is, on the whole, closer to PTB than Jinghpo is, it may be assumed that the prefixes in those Jinghpo words are direct descendants from clusters in PTB (see Section 1.3.2.1). But it is also possible that a PTB cluster may have already been reduced to a single consonant in the ancient form of the Jinghpo language (or of the proto-language for the whole Jinghpo subgroup within TB) before the existing Jinghpo prefix was added (see Section 1.3.2.2). The actual assignment of examples to one of these two sections is based on educated guesswork, and there are a few double assignments.
1.3.2.1 The following is a list of Jinghpo words containing LA prefixes that have probably originated from initial consonant clusters in PTB. A question mark at the beginning of the line marks an uncertain set of cognates:

| WT | Jinghpo | Other TB languages ${ }^{17}$ | Gloss \& remarks |
| :---: | :---: | :---: | :---: |
| bzi | [mă ${ }^{31} \mathrm{l}^{\text {333 }}$ ] | Cuona M. [pli ${ }^{33}$ ] | four |
|  |  | Gyarong [kə wdi] |  |
|  |  | Queyu [bzi ${ }^{13}$ ] |  |
| bla | [ ${ }^{\text {mum }}{ }^{31} \mathrm{a}^{33}$ ] | Queyu [ ${ }^{\text {ba }}{ }^{55}{ }^{\text {so }}{ }^{55}$ ] | soul |
|  |  | Dulong [ $\mathrm{pux}^{31} \mathrm{la}{ }^{53}$ ] |  |
| brgjad | [mă ${ }^{31}$ tsat ${ }^{55}$ ] | Alike T. [wdzat] | eight ${ }^{18}$ |
|  |  | Queyu [pf $\varepsilon^{13}$ ] |  |
| ? bjifu | [ $\mathrm{nam}^{31} \mathrm{t} \mathrm{i}^{33}$ ] | Muya [ ${ }^{\text {dzzes }}{ }^{55} \mathrm{fu}^{33}{ }^{*}$ | little bird |
|  |  |  | J.: [-tfi $\left.{ }^{31}\right]$ little, young * bird |

17) Except for WB words, data under the column of 'Other TB languages' are from Huang (1992). Please refer to that book for the fieldworker(s) and exact fieldwork location involved for each language. The Zhaba language here is different from the language of the same name described in Lu Shaozun (1985), which is, according to Huang (1991:65), a dialect of the Queyu language. Abbreviations for languages are as follows:

| Abb. In pinyin | Other names of the language | Abb. Full form |
| :--- | :--- | :--- |
| J. =Jingpo | Jinghpaw, Kachin | D. = Deng |
| L. =Luoba | Lhoba | T. =Tibetan |
| M. = Menba | Monba | WT = Written Tibetan |
| P. $=$ Pumi | Primi, Prunmi | WB = Written Burmese |
| Y. $=$ Yi | Lolo |  |

The following languages are also known in other names (an asterisk means 'according to Anonymous 1991:368'):

| In pinyin | $=$ Other names | In pinyin $=$ Other names |  |
| :--- | :--- | :--- | :--- |
| Darang Deng | $=$ Digaru* $^{*}$ | Muya $=$ Minyak |  |
| Geman Deng | $=$ Midzu* $^{*}$ | Namuzi =Namuyi falso in pinyin $]$ |  |
| Dulong | =Rawang*, Trung | Yidu Luoba= Midu* ${ }^{*}$, Chulikata* |  |
| Motuo Menba | $=$ Tsangla* |  |  |


| $\begin{aligned} & ? \text { sub } \sim \\ & \text { bsub } \sim \\ & \text { gsub } \end{aligned}$ | $\begin{aligned} & {\left[\mathrm{sop}^{31}\right]^{*}} \\ & {\left[\mathrm{mă}^{31} \text { sop }^{31}\right]^{* *}} \end{aligned}$ | Queyu [pse ${ }^{55}$ ] <br> Shixing [ba $\left.{ }^{33} \mathrm{su}^{53}\right]$ <br> Namuzi [mi ${ }^{33} \mathrm{su}^{35}$ ] | wipe away <br> * slightly stroke once <br> ** stroke, touch |
| :---: | :---: | :---: | :---: |
| dgu | [tf $\left.\mathrm{a}^{31} \mathrm{k}^{\mathrm{n}} \mathrm{u}^{31}\right]$ | Cuona M. [tu ${ }^{31} \mathrm{ku}^{33}$ ] | nine |
|  |  | Qiang [zgua] |  |
|  |  | Dulong [ $\mathrm{du}^{31} \mathrm{gum}^{53}$ ] |  |
| skra | [ ${ }^{\text {a }}{ }^{55}{ }^{\text {a }}{ }^{55}$ ] | Cuona M. [k ${ }^{\text {bra }}{ }^{53}$ ] | hair on the head |
| ltag | [1ă ${ }^{31} t^{\text {b }}{ }^{\text {a }}$ 31] $]$ |  | uplands, higher place |
| 1dzi ba | [wa ${ }^{231}-\mathrm{k}^{\mathrm{h}}{ }^{\text {a }}$ [ $\mathrm{i}^{33}$ ] | Queyu [stur $\left.{ }^{13}\right] \sim\left[11 \mathrm{~m}^{13}\right]$ | flea ${ }^{19)}$ |
|  |  | Daofu [zku] |  |
|  |  | WB [lhe ${ }^{3}$ ] |  |
|  |  | Karen [ $\left.{ }^{\text {th }} \mathbf{u}^{31} \mathrm{klil}^{5}{ }^{5}\right]$ |  |
| $\ln a$ | [ $\mathrm{ma}{ }^{31} \mathrm{ya} \mathrm{a}^{33}$ ] | Gyarong [ke myo] | five |
|  |  | Darang D. [ $\mathrm{ma}^{31} \mathrm{ra}^{35}$ ] |  |
|  |  | Yidu L. [ma ${ }^{31} \mathrm{ra}{ }^{55}$ ] |  |
| rkay pa | [ $1 \mathrm{a}^{31} \mathrm{ko}^{33}$ ] |  | foot |
| rku | [12 $\left.{ }^{31} \mathrm{ku}^{55}\right]$ |  | steal |
| sbrul | [la ${ }^{33} \mathrm{pu}^{33}$ ] | Alike T. [rbu] | snake |
|  |  | Gyarong [ $\mathrm{k}^{\mathrm{h}}$ bre] |  |
|  |  | Yidu L. [ja ${ }^{55} \mathrm{bu}^{55}$ ] |  |
| fibu | ([ $\left[\mathrm{in}^{33} \mathrm{taj}^{33}\right]$ ) |  | worm |
| $\mathrm{p}^{\text {h }}$ rag pa | $\left[k \widetilde{a}^{31} p^{\text {ha }}{ }^{\text {a31 }}\right.$ ] | Gyarong [ta rpak] | shoulder |
| rdz̧en pa | [ $\mathrm{x} \mathrm{a}^{31} \mathrm{tsin}^{33}{ }^{3}$ ] | Geman D. [kun ${ }^{55} \mathrm{dzam}^{53}$ ] | raw, uncooked |
| ryo(d) | [ $\mathrm{ka}^{31} \mathrm{nau}^{33}$ ] | Zhaba [ $\mathrm{kr}^{55} \mathrm{nu}{ }^{33}$ ] | stir-fry ${ }^{20}$ |
|  |  | Minyak [ $\mathrm{k}^{\mathrm{h}} \mathbf{u}^{55} \mathrm{n} \mathbf{u}^{53}$ ] |  |
| rma $\mathrm{k}^{\text {ha }}$ | [ $\mathrm{n}^{31} \mathrm{ma}^{31}$ ] |  | wound |
|  | [ $\left.{ }^{31} \mathrm{ma}^{31} \mathrm{\# k}^{\text {ha }}{ }^{33}\right]^{*}$ |  | * scar |
| rja ma | $\begin{aligned} & {\left[\mathrm{mai}^{31}\right] \sim} \\ & {\left[\mathrm{n}^{31} \mathrm{mai}^{31}\right] \sim} \\ & {\left[\mathrm{nin}^{31} \mathrm{mai}^{31}\right]} \end{aligned}$ | Gyarong [te jmi] | tail |
|  |  | Queyu [ $\mathrm{nn}{ }^{13}$ ] |  |
|  |  | WB [amri ${ }^{3}$ ] |  |
|  |  | Shixing [mæ ${ }^{33} \mathrm{t} \mathrm{u}^{55}$ ] |  |
|  |  | Xiandao [ņi ${ }^{31}$ tss ${ }^{\text {h }} 0^{31}$ ] |  |
|  |  | Nusu Nu [mum ${ }^{55} \mathrm{pl}^{\text {dis }}$ ] $]$ |  |
| rluy | [ ${ }^{31}$ pun ${ }^{33}$ ] |  | wind |
| ? rdo | [ ${ }^{31} \mathrm{un}^{31}$ ] | Motuo M. [lun] | stone ${ }^{21)}$ |
|  |  | Jiulong P. [guo ${ }^{11}{ }^{\text {lu }}$ [5] $]$ |  |

18) But the Jinghpo word for "hundred" has no prefix:

| WT | Jinghpo | Other TB languages | Gloss |
| :--- | :--- | :--- | :--- |
| brgja | [tsa ${ }^{33}$ ] | Batang T. [dza ${ }^{35]}$ | hundred |

Alike T. [wjjæ]
Queyu [bdza ${ }^{13}$ ]
19) But the Jinghpo word for 'heavy' has no prefix:

20) The parentheses in the WT form stands for optionality. That is to say, $\mathrm{rgo}(\mathrm{d})=\mathrm{rgo} \sim \mathrm{rgod}$.

| rgja <br> $\mathrm{mt}^{\mathrm{h}} \mathbf{u d}$ |  |  | barking deer ${ }^{22)}$ to connect, join |
| :---: | :---: | :---: | :---: |
|  | [ma ${ }^{31}$ tut ${ }^{55}$ ] | Gyarong [ke mt ${ }^{\text {h }}$ əp] |  |
|  |  | Darang D. [ma $\left.{ }^{55} \mathrm{t}^{\text {h }}{ }^{55}\right]$ |  |
|  |  | Yidu L. [ma ${ }^{55} \mathrm{t}^{\text {h }}{ }^{55}$ ] |  |
| mdaf | [ $\mathrm{n}^{31} \tan ^{33}$ ] | Zhaba [mda ${ }^{55} \sim$ nda $^{55}$ ] | arrow |
|  |  |  | J.: bow ${ }^{23)}$ |
| smjug mdon | $\begin{aligned} & {\left[n^{31} \operatorname{tum}^{55}\right]} \\ & {\left[n^{31} \operatorname{tum}^{55} n^{31} \tan ^{33}\right]^{*}} \end{aligned}$ | Muya [tçe ${ }^{55}$ ndo $^{53}$ ] | bamboo tube as a container |
|  |  |  | T.: bamboo + caddy |
|  |  |  | J.: [tum ${ }^{33}$ ] storehouse <br> * < generic n.> |
|  |  | WB [hnut-kham ${ }^{3}$ ] | Muya: [tcæ ${ }^{24}$ ] tea lips |
| $m t c^{\text {h }} \mathbf{u}$ to | [ ${ }^{31} \mathrm{kup}^{31}$ ] | Dulong [nui ${ }^{55} \mathrm{k} \mathrm{pp}^{55}$ ] | $\begin{aligned} & \text { T.: also '(tea-pot) } \\ & \text { spout' } \end{aligned}$ |
|  |  |  | J.: mouth |
|  |  |  | Dulong: [nuii ${ }^{55}$ ] mouth |
| ? (star ga) | [ $\mathrm{n}^{31} \mathrm{pu}^{31}$ ] | Alike T.[khæ mbe rta rgæ] Daofu [ $k^{\mathrm{h}} \partial \mathrm{mb}$ ] | walnut |
| spuy | [sum ${ }^{31} \mathrm{pum}^{31}$ ] |  | to heap, stack |
| ? stag | [ $\int \mathrm{a}^{31} 30^{33}$ ] |  | tiger |
|  |  |  | J.: <generic n.> tigers, leopards, \& the like ${ }^{24)}$ |
| skar ma | [ $\mathrm{a}^{33} \mathrm{kan}^{33}$ ] |  | star |
| skas fidzeg | [lă ${ }^{33} \mathrm{ka}^{33}$ ] | Queyu [ $\mathrm{i}^{55} \mathrm{ki}^{33}$ ] | ladder |
|  |  | Lüsu [ $\left.\mathrm{i}^{33} \mathrm{ki}^{53}\right]$ | T.: fidzeg 'to climb' |
|  |  | WB [lhe ${ }^{2}-\mathrm{k} \overline{\mathrm{a}}^{3}$ ] |  |
|  |  | Naxi [le ${ }^{33} \mathrm{dzi}^{21}$ ] |  |
| skam pa | [lă ${ }^{55} \mathrm{kap}{ }^{55}$ ] |  | fire-tongs ${ }^{25}$ ) |
| sram | [ $\left[\breve{a}^{31} 3^{3} \mathrm{~m}^{33}\right]$ |  | otter |

21) But the Jinghpo word for 'to beat' has no prefix:
rduy [tum ${ }^{31}$ ]
T.: to pestle, pound, hit
J.: to beat [the drum, gong]
22) But the Jinghpo word for 'intestine' has no prefix:
rgjuma [pu ${ }^{31}$ ] Karen [bui ${ }^{33}$ ] intestine
J.: \{related to $\left[1 \mathrm{a}^{33} \mathrm{pu}^{33}\right]$
'snake'?\}
23) The Jinghpo word for 'arrow' [pă ${ }^{55}{ }^{5} \mathrm{a}^{55}$ ] is related to its counterpart in Cuona Menba [bla ${ }^{53}$ ].
24) Another generic noun for 'tigers, leopards, and the like' is [nam ${ }^{31} 3 \mathrm{ai}^{55}$ ]. Other Jinghpo words for 'tiger' are $\left[30 \eta^{31} \mathrm{pa}^{31}\right]$ and $\left[\mathrm{n}^{31} \mathrm{pa}^{31}\right] \sim\left[\mathrm{nin}^{31} \mathrm{pa}^{31}\right]$.
25) But the Jinghpo words for 'dry' and 'speech, words' have no prefix:


| zla ba (bdun) | [ $\left.\widetilde{a}^{33} \mathrm{ta}^{33}{ }^{33}\right]$ | Queyu [sl2 ${ }^{55} \mathrm{mn}{ }^{33}$ ] | moon <br> seven |
| :---: | :---: | :---: | :---: |
|  |  | Dulong [ $\mathrm{sum}^{31} \mathrm{la}^{55}$ ] |  |
|  |  | Gyarong [ka fnəs] |  |
|  |  | Daofu [zne] |  |
|  |  | Queyu [sna ${ }^{55}$ ] |  |
|  |  | Anong $\mathrm{Nu}\left[\mathrm{s}^{31}{ }_{\text {nij }}{ }^{55}\right]$ |  |
| snom | [mă ${ }^{31} \mathrm{nam}^{55}$ ] | Zhaba [ $\mathrm{n}^{33} \mathrm{mni}^{55} \mathrm{mni}^{33}$ ] | to smell sth. ${ }^{26}$ |
| ? sgo | $\left[\mathrm{n}^{33} \mathrm{k}^{\mathrm{h}}{ }^{33}{ }^{\text {a }} \sim\right.$ | Zhaba [ng1 ${ }^{13}$ ] | door |
|  | $\left[t 5{ }^{\text {in }}{ }^{33} \mathrm{k}^{\text {ha }}{ }^{33}\right]$ | Lüsu [ngæ ${ }^{35}$ ] |  |
|  |  | Wuding Y. [ $\mathrm{nk}^{\mathrm{h}} \underline{\underline{2}}^{2}$ ] |  |
| fibibs | ( $\left[^{\text {h }} 0 \mathrm{O}^{31}\right]$ ) | Jiulong P. [n2 $\left.{ }^{11} \mathrm{di}^{35}\right]$ | put up an umbrella <br> T.: also 'put up a tent' |
|  |  |  |  |
| fidegs | [mă ${ }^{31} \mathrm{ti}^{\text {P31 }}$ ] | Namuzi [ $\left.\mathrm{lu}^{33} \mathrm{nk} \mathrm{k}^{\text {hi }}{ }^{33}\right]$ | prop up, support |
| ldag $\sim$ fidag | [ma ${ }^{31}$ ta ${ }^{\text {P5s }}$ ] | Yidu L. [has ${ }^{35} \mathrm{me}^{55}$ ] | to lick, lap |
|  |  | Jinuo [mres ${ }^{55}$ ] |  |
| ? fidi | [ ${ }^{33} \mathrm{tai}^{33}$ ] | Xiahe \& Alike T. [ndo] | this |
|  |  | Gyarong [ [to] | J.: [tai ${ }^{33}$ ] that cover (up) |
| figebs | [ma ${ }^{31} \mathrm{kap}^{31}$ ] | Xiahe T. [ngap] |  |
|  |  | Jiulong P. [n ${ }^{11} \mathrm{kue}{ }^{55}$ ] |  |
|  |  | Dulong [kop ${ }^{55}$ ] |  |
| fits ${ }^{\text {h }}$ b | [ma ${ }^{31}$ tsut ${ }^{55}$ ] | Qiang [ $\chi$ tse] | block up, plug |
|  |  | Muya [ $\mathrm{o}^{33} \mathrm{dza}{ }^{53}$ ] |  |
| fidre cig | [ ${ }^{55}{ }^{5} \mathrm{k}^{3} \mathrm{p}^{55}$ ] | Alike T. [ydza xək] | bedbug <br> T.: cig 'louse' wipe [the table] |
|  |  | Geman D. [mu ${ }^{31} \mathrm{klap}^{53}$ ] |  |
| ? fip ${ }^{\text {h }}$ id | [ ă $^{31}{ }^{\text {tsunt }}{ }^{55}$ ] | Zhaba [ $\left.\mathrm{a}^{33}(\mathrm{p}) \mathrm{t} \mathrm{s}^{5}{ }^{55}\right]$ |  |
|  |  | Wuding Y. [ n , $\mathrm{c}^{\mathrm{h}} \underline{\underline{2}}^{2}$ ] |  |

1.3.2.2 It is also possible that the existing prefixes in some Jinghpo words are secondary. That is to say, they came into being only after the Jinghpo language (or subgroup) had become distinct from PTB. For the illustration of a semi-prefix, there are the following group of words:

| WT | Jinghpo | Other TB languages | Gloss |
| :---: | :---: | :---: | :---: |
| pus mo | [ $1 \grave{a r ~}^{31} \mathrm{p}^{\text {h }} \mathrm{t}{ }^{31}$ ] | Qiang [ər pax] | knee |
| dpuy pa | $\left[1 \mathrm{a}^{31} \mathrm{p}^{\mathrm{h}} \mathrm{mm}^{31}\right]$ |  | T.: shoulder |
|  |  |  | J.: upper arm |
| fidom pa | [ ${ }^{3}{ }^{31} 1 \mathrm{am}^{33}$ ] | $\text { Cuona M. [klam } \left.{ }^{33}\right]$ $\text { Karen }\left[k^{\text {hli }}{ }^{j^{5}}\right]$ | fingertip to fingertip of out-stretched arms |
|  |  | Dulong [lam ${ }^{\text {55 }}$ ] |  |
| rkay pa | [ ${ }^{\text {a }}{ }^{31} \mathrm{ko}^{33}$ ] |  | foot |
| lag pa | [ta ${ }^{\text {P55 }}$ ] | WB [lak ${ }^{4}$ ] | arm, hand |
|  | [ $\mathbf{a l}^{31} \underline{1}^{2555}$ ] | Daofu [ba] |  |
|  |  | Shixing [1i ${ }^{35}$ ] |  |

26) But the Jinghpo word for 'nasal mucus' has no prefix:
snabs [nep ${ }^{31}$ ] Batang T. [ñau ${ }^{\text {P53 }}$ ] nasal mucus WB [nhap4]

It is probable that in the process of disyllabification, the Jinghpo reflex of the PTB etymon for 'hand, arm, (or even limb)', as indicated by the initial syllable in the WT form lag pa, got attached to some nouns of body parts in the same language, thereby producing words like [lă ${ }^{31} p^{\mathrm{h}} u t^{31}$ ] 'knee', which should have, as shown by WT pus mo, only a simple consonant as the initial in PTB. The choice of 'arm/hand' as a semi-prefix in Jinghpo may have been triggered by the first element of the proto-clusters in the second to the fifth words quoted above (especially 'foot'), as reflected by the three WT forms in question.

According to this analysis, the initial [1] in WT lag pa 'arm, hand' then corresponds to both the initial [1] and the medial [t] in the Jinghpo cognate $\left[1 \breve{a}^{31} t \underline{a}^{\text {p5s }}\right.$ ]. The etymology of the latter word started with a monosyllable in PTB probably of the form *lag, which later turned into [ta ${ }^{255}$ ] in Jinghpo. Afterwards, the semi-prefix [lă ${ }^{31}$-], also derived from the PTB word for 'arm/hand', was added to the root. There are two reasons for not saying that only the initial syllable in [l⿺a ${ }^{31}$ ta $\left.{ }^{255}\right]$ came from *lag and that the second syllable, of unknown origin, was added later. For one thing, it seldom happens that a root morpheme in a Tibetan word corresponds to a prefix in Jinghpo. For another, there is another example for the correspondence between WT [l] and Jinghpo [t], viz., the pair of cognates meaning 'moon': WT zla ba and Jinghpo [ $\left[\mathrm{a}^{33}{ }^{3} \mathbf{a}^{33}\right.$ ].

Even when the WT cognates of Jinghpo words with a prefix include a cluster, however, it is still possible that these prefixes do not originate from the clusters in PTB. There are at least two reasons for this. 1) The consonant(s) in the Jinghpo prefix is/are phonetically very different from the consonants in the WT cluster, for example:

| ltce (leb) | [ $\left[\mathrm{in}{ }^{31} \mathrm{let}^{31}\right]$ | Gyarong [te [me] | tongue ${ }^{27}$ |
| :---: | :---: | :---: | :---: |
|  |  | Karen [ble ${ }^{33}$ ] |  |
|  |  | WB [lhyā] |  |
| fidre cig | [ ${ }^{\text {a }}{ }^{55} \mathrm{k} 3 \mathrm{e}^{55}$ ] | Alike T. [ydza xək] | bedbug |
|  |  | Geman D. [mu ${ }^{31} \mathrm{klap}^{53}$ ] | T.: cig 'louse' |

2) Cognates in other TB languages do not support the proposition that the Jinghpo prefixes in question descend directly from clusters in PTB, for example:

| smjug ma | [k ${ }^{5}{ }^{55} \mathrm{wa}^{55}$ ] | Queyu [ $1 \mathrm{ma}^{55}$ ] | bamboo |
| :---: | :---: | :---: | :---: |
|  | [wa ${ }^{331}$-]* | WB [ $\mathrm{wa}^{3}$ ] | *\#Prefix for 'bamboo'28) |
|  |  | Karen [wa ${ }^{31}$ ] |  |
| (fik ${ }^{\text {hri }} \mathbf{l}$ ( $)$ cin | [ $\left.3^{13}\right]$ ) | WB [anway ${ }^{2}$ ] | vine |
|  |  | Batang T. [ba ${ }^{53}$ ] |  |
|  |  | Muya [bæ ${ }^{53}$ ] |  |
|  |  | Karen [ $\mathrm{yi}^{31} \mathrm{bo}^{55}$ ] |  |

27) The optional leb is a Tibetan morpheme meaning 'flat and thin', as in leb leb <adj.> 'flat and thin' (Yu 1983:961).
28) For example, [wa ${ }^{231} \mathrm{p}^{\mathrm{h}} \mathrm{an}^{33}$ ] 'A clump of bamboo' (Han., p. 704).

| lteb $\sim$ Itab | [ $\left.k \breve{a}^{31} t^{\text {h }}{ }^{\text {a }}{ }^{31}\right]$ | Gyarong [ $\mathrm{ke} \mathrm{ltap]}$ | fold up [a quilt] |
| :---: | :---: | :---: | :---: |
|  |  | Shixing [la ${ }^{55} \mathrm{tca}^{55}$ ] |  |
|  |  | Dulong [ $\mathrm{mux}^{31} \mathrm{dep}^{55}$ ] |  |
| bla | [num $\left.{ }^{31} a^{33}\right]$ | Queyu [bla ${ }^{55} \mathrm{so}^{55}$ ] | soul |
|  |  | Dulong [ $\mathrm{pur}^{31} \mathrm{la}^{53}$ ] |  |
| gsum | [mă ${ }^{31}$ sum $^{33}$ ] | Darang D. [ $\mathrm{ka}^{31} \mathrm{sum}^{35}$ ] | three |

The prefix in [mă ${ }^{31}$ sum $^{33}$ ] 'three' is especially likely to be added in parallel to other Jinghpo numerals such as the following:

| WT | Jinghpo | Gloss |
| :---: | :---: | :---: |
| bzi | [ $\mathrm{ma}{ }^{31} \mathrm{l}^{3}{ }^{33}$ ] | four |
| brgjad | [ma ${ }^{31}{ }^{\text {tsat }}{ }^{55}$ ] | eight |
| $\operatorname{lna}$ | [ma ${ }^{31} \mathrm{a}^{33}$ ] | five |

The initial syllables in the second batch of Jinghpo words quoted in this section (starting from 'tongue') have unknown origins. They have no meaning at all. Their sole function seems to be to form a disyllabic pattern. They are therefore classified as LA prefixes.
1.3.2.3 The above section presented the case in which Jinghpo prefixes correspond to WT initial clusters. This section now deals with Jinghpo words which have a prefix while their Tibetan cognates have a simple consonant as the initial. There are two possible explanations for this. 1) The lack of prefix in Tibetan usually indicates that the prefixes in those Jinghpo words are secondary. 2) A minority of WT words may have dropped the prefixes in their PTB etyma, but traces of them can still be found in the Jinghpo reflexes. Evidence from other TB languages may lend help in deciding individual cases.

Examples for the first possibility are as follows:

| WT | Jinghpo | Other TB languages | Gloss |
| :---: | :---: | :---: | :---: |
| (gnam) | [12 ${ }^{31} \mathrm{mu}^{31}$ ] | Qiang [mu tup] | sky |
|  |  | Lanping P. [m> ${ }^{55}$ ] |  |
|  |  | Queyu [mu ${ }^{55}$ ] |  |
|  |  | Dulong [mu ${ }^{\text {P55 }}$ ] |  |
|  |  | WB [mui ${ }^{3}$ ] |  |
| dug | [tuk ${ }^{55}$ ] | Motuo M. [du ${ }^{\text {P }}$ ] | poison |
|  | [ $\mathrm{n}^{31} \mathrm{tuk}^{55}$ ] | Qiang [dua] | But: Alike T. [yduk] |
|  | [ $\mathrm{nin}^{31} \mathrm{tuk}^{55}$ ] | Gyarong [tek] |  |
|  |  | Daofu [du] |  |
| rus pa | $\left[n^{31} 3^{33}\right]$ | WB [arui ${ }^{3}$ ] | bone |
|  |  | Lanping P. [ $\mathrm{za}^{55} \mathrm{qa}^{13}$ ] |  |
|  |  | Daofu [ra ra] |  |
| rwa | [ $\mathrm{n}^{31} 30 \mathrm{~g}^{33}$ ] | Cuona M. [ru ${ }^{35}$ ] | horn |



Examples for the second possibility are as follows:

| $t c^{\text {h }} u \eta t^{\text {ch }} u \eta$ |  | Qiang [ $\chi$ ts $\mathrm{c}^{\text {] }}$ | little, small |
| :---: | :---: | :---: | :---: |
|  |  | Lanping P. [qa ${ }^{13} \mathrm{tse}^{13}$ ] |  |
|  |  | Gyarong [kə ktsi] | \} |
| gug po | [ $\mathrm{ma}^{31} \mathrm{ko}^{\text {231 }}$ ] | Gyarong [ka rgo rgo] | crooked, bent |
|  |  | Daofu [(də) ryu] |  |
| $t^{\text {higs }} \mathrm{pa}$ | [ $\mathrm{n}^{31} \mathrm{t}^{\mathrm{h}} \mathrm{e}^{\mathbf{3 1 1}}$ ] | Gyarong [ $\mathrm{nt}^{\text {h }} \mathrm{ek}$ ] | a drop [of oil] |
|  |  | Queyu [ndzie ${ }^{55}$ ] |  |
|  |  | Lüsu [nt ${ }^{\text {a }}{ }^{53}$ ] |  |
|  |  | Lanping P. [st ${ }^{\text {b }}{ }^{13}$ ] |  |

All the Jinghpo words quoted in this section have a LA prefix. It does not matter whether or not the initial syllables of these words originate from proto-clusters. As long as they do not derive from content morphemes or have any meaning, but are in the general phonetic format of Jinghpo prefixes, as typified by the [la ${ }^{31}$-] in [ 1 ä $^{31} \mathrm{mu}^{31}$ ] 'sky', they are LA prefixes.

What has been said in Section 1.3 up to now is about the correspondence of Jinghpo prefixes in Tibetan. To complete the picture, there should be two more types of cases where the absence of prefix in Jinghpo corresponds to the absence and presence of prefix in Tibetan. Note the following two words:

| $\mathrm{k}^{\text {hji }}$ | [ $\mathrm{kui}^{31}$ ] | Qiang [ $\mathrm{k}^{\text {h }} \mathrm{u}$ ] | dog |
| :---: | :---: | :---: | :---: |
|  |  | Jiulong P. [ $\mathrm{k}^{\text {hi }}{ }^{55}$ ] |  |
|  |  | Dulong [duu ${ }^{31} \mathrm{gui}{ }^{55}$ ] |  |
|  |  | WB [khwe ${ }^{3}$ ] |  |
| skad t g $^{\text {ha }}$ | [ $\mathrm{ka}^{31}$ ] | WB [cakā ${ }^{\text {² }}$ ] | speech, words |

### 1.3.3 Ambiguous Cases: Semi- or LA Prefixes?

For some instances of Jinghpo prefixes, it is not yet certain if they are semiprefixes or LA prefixes. The first example comes from the three Jinghpo variant forms for 'seed' in Hanson (1906):

| $\left[\mathrm{mam}^{33} \mathrm{li}^{33}\right]$ | 'Seed-grain' | (Han., p. 390) |
| :--- | :--- | :--- |
| $\left[\mathrm{n}^{33}\right]^{\left.\mathrm{i}^{3}\right]}$ | 'Seed; grain used as seed' | (Han., p. 494) |
| $\left[\mathrm{li}^{33}\right]$ | 'Seed, any grain used as seed' | (Han., p. 344) |

At first sight, it may be assumed that the initial syllable in the second form above is a semi-prefix derived from [mam ${ }^{33}$ ] 'grain'. However, the Queyu cognate of 'grain' begins with a consonant cluster the second element of which is also [1]:

| WT | Jinghpo | Other TB languages | Gloss |
| :--- | :--- | :--- | :--- |
| (son) | $\left.\left[\mathrm{n}^{33}\right] \mathrm{i}^{33}\right]$ | Queyu [rlu$\left.{ }^{55}\right]$ | seed |

There remains, therefore, the possibility that the prefix [ ${ }^{33}$-] in Jinghpo originates from a consonant cluster in PTB.

Another case in point is [ $\mathrm{n}^{31} \mathrm{t}^{\mathrm{h}} \mathrm{u}^{33}$ ], the Jinghpo word for 'knife'. Again, the nasal prefix in this word correlates to the initial syllable of the cognates in two dialects of the Yi language, as shown below:
(gri) $\quad\left[n^{31} t^{h} \mathbf{u}^{33}\right] \quad$ Wuding $Y .\left[b^{55} t^{h} u^{33}\right] \quad$ knife, sword Sani Y. [mI $\mathrm{I}^{\left.5 \mathrm{t}^{\mathrm{h}} \mathrm{D}^{11}\right]}$

But the Jinghpo prefix may also be a reduced form of [sum ${ }^{31}$-], a reflex of the PTB word for 'iron' (see Section 1.2(4) above). As for the second syllable of [ $\mathrm{n}^{31} \mathrm{t}^{\mathrm{h}} \mathbf{u}^{33}$ ], it has the meaning of ' $k n i f e$, sword' as a bound morpheme in compounds such as [ $t^{\text {h }} \mathbf{u}^{31}$ non $^{31}$ ] a 'sword, hilt and all of steel' (Han., p. 691). Or [ $\left.t^{h} u^{33}\right]$ is, by itself, a free morpheme meaning 'to cut [for sap]' (Xu et at., p. 321). The same kind of uncertainty also holds for the prefix in the Jinghpo word for ' $a x$ ':

| sta ri~ | $\left[\mathrm{n}^{31} \mathrm{wa}^{33}\right] \sim$ | Gyarong [fə rpa] |
| :--- | :--- | :--- | :--- |
| sta re | $\left[\mathrm{nif}^{31} \mathrm{wa}^{33}\right]$ | Daofu $[\mathrm{lvi}]$ |
|  |  | Geman D. $\left[\mathrm{a}^{31} \mathrm{wăi}^{53}\right]$ |$\quad$ ax

The third set of cases concerns the prefix [s ${ }^{513}{ }^{31}$ ] in the Jinghpo names for three body organs. This prefix is very likely to originate from the free morpheme [ $\mathrm{sin}^{31}$ ] 'internal organs', except that the cognates of these three words in other TB languages also have an initial syllable or a consonant cluster. Look at the following words:

| smin | [sa ${ }^{31} \mathrm{lum}^{31}$ ] | WB [nhalum ${ }^{3}$ ] | heart |
| :---: | :---: | :---: | :---: |
|  |  | Anong Nu [ $\mathrm{ni}^{31} \mathrm{Iumm}^{31}$ ] |  |
|  |  | Geman D. [lumm ${ }^{35}$ ] |  |
| mk ${ }^{\text {hris }} \mathrm{pa}$ | [ $\left.{ }^{\text {a }}{ }^{31} \mathrm{k} 3^{31}\right]$ ] | Daofu [skre] | gall bladder |
|  | [sa $\left.{ }^{31} \mathrm{kzi}^{31}\right]^{*}$ | Zhaba [ststic ${ }^{13}$ ] | *(Han., pp. 608 \& 638) |
| $\mathrm{mk}^{\text {hal }} \mathrm{ma}$ | [să $\left.{ }^{31} \mathrm{t}^{55}{ }^{51}{ }^{31} \mathrm{e}^{55}\right]$ | Qiang [spal] | kidney |
|  | [ $\sin ^{31} \mathrm{te}^{55}$ ] |  |  |

Notice that in the case of 'kidney,' the prefix [ $\mathrm{sa}^{31}-$ ] is actually in free variation with
[ $\sin ^{31}$-]. This group of Jinghpo words may be another case in which the forces of semi-prefix and of LA prefix have brought about the same result.

## 2. A DISAGREEMENT IN CLASSIFICATION WITH XU (1986)

This section argues against Xu's classification of a certain set of bound morphemes as semi-prefixes. First, a description of the data. The second syllable of some Jinghpo disyllabic words cannot separate from the initial syllable to stand on their own or combine with other morphemes to form new words, for example:

| [mă ${ }^{31}$ tsat ${ }^{55}$ ] | eight | [så ${ }^{31} \mathrm{nit}^{31}$ ] | seven |
| :---: | :---: | :---: | :---: |
| [ma ${ }^{31} \mathrm{li}^{33}$ ] | four | [1ă ${ }^{55} \mathrm{pop}^{55}$ ] | snail |
| [ma $\left.{ }^{31}{ }^{3} a^{31}\right]$ | forget | [ ${ }^{55} \mathrm{ta}^{51}$ ] | house; home |
| [mă ${ }^{31}$ tat $^{31}$ ] | to listen |  |  |

But the second syllable in many other words with a prefix can do so, for example:

| [ $\left.1 \breve{a}^{31} \mathrm{ko}^{33}\right]$ | leg | [ $\mathrm{ko}^{33} \mathrm{k}^{\text {hjen }}{ }^{31}$ ] | puttee | [ $\mathrm{k}^{\mathrm{h}} \mathrm{jen}^{31}$ ] | to wrap |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left[\mathrm{ko}^{33} \mathrm{sen}^{31}\right]$ | Han Chinese women's bound feet | [sen ${ }^{31}$ ] | a little sharply |
| [mă $\left.{ }^{31} \mathrm{kui}^{33}\right]$ | elephant | [kui $\left.{ }^{31} \mathbf{k}^{\mathbf{h}} \mathbf{u}^{955}\right]$ | domestic elephant | [ $\mathrm{k}^{\mathrm{h}} \mathrm{u}^{\text {255 }}$ ] | to tame |
|  |  | [kui ${ }^{31} \mathrm{kog}^{33}$ ] | tusk | [koy ${ }^{33}$ ] | long, sharp tooth |
|  |  | [kui ${ }^{31} \mathrm{lam}^{55}$ ] | wild elephant |  |  |
|  |  | [kui ${ }^{31} \mathrm{nog}^{33}$ ] | a herd of elephant | [-noy ${ }^{33}$ ] | a group |
| [ $\mathrm{n}^{31} \mathrm{pun}^{33}$ ] | wind | [puy ${ }^{31} \mathrm{ka}^{31}$ ] | fierce wind |  |  |
|  |  | [pun ${ }^{31} \mathrm{l}^{55}$ ] | cool wind |  |  |
|  |  | [pun ${ }^{31} \mathrm{p}^{\mathrm{h} j} \mathrm{ji}^{55}$ ] | breeze | [ $\mathrm{p}^{\mathrm{h}} \mathrm{ji}^{31}$ ] | lightly, slowly |
|  |  | [pun ${ }^{31} \operatorname{tsin}^{33}$ ] | cold wind | [tsin ${ }^{31}$ ] | slowly, mildly |
|  |  | [pur ${ }^{31}$ soi $^{55}$ ] | to cool off in a breeze |  |  |
| [tum ${ }^{31} \mathrm{su}^{33}$ ] | huangniu cattle | [su ${ }^{31} \mathrm{la}^{31}$ ] | a male huangniu | [ $1 \mathrm{a}^{31}$ ] | male |
|  |  | [ $\mathrm{su}^{31} \mathrm{ji}^{31}$ ] | a female huangniu | [ji ${ }^{31}$ ] | female |
|  |  | [su ${ }^{31}{ }^{\text {am }}{ }^{55}$ ] | a stray huangniu | [lam ${ }^{55}$ ] | stroll, be on the loose |

The fact that the second syllable can separate from the first is also a factor that makes the latter look like a prefix, although mostly of the LA type.

Since the second syllables in the first column of words listed above can also appear word-initially elsewhere, a question arises as to whether they should be treated as prefixes. Xu (1986:322) also put them under the rubric of semi-prefix, but the present paper is against this classification.

Reasons for Xu's proposition are probably as follows: (a) these syllables are word-initial in the second column of words above, (b) each one of these syllables is initial in $a$ set of words, and (c) these monosyllabic morphemes are listed as separate entries in Xu et al. (1983).

There are, however, several reasons to revise Xu's treatment. First, these
syllables are not in the general phonetic format of Jinghpo prefixes. They have in their rhyme sounds like [0] and [ui], and they can even end with a glottal stop. (See the Appendix for more examples of these morphemes.) In fact, there seems to be no general pattern that can be stated for their form. Second, generally speaking, prefixes form a closed class of words in a language. Crystal (1991) defines the term 'affix' as follows:

> The collective term for the types of formative that can be used only when added to another morpheme (the root or stem), i.e. affixes are a type of bound morpheme. Affixes are limited in number in a language, and are generally classified into three types, .. (p. 11, emphasis added)

But in the case of Jinghpo, the number of the kind of monosyllabic morphemes in question is larger than all the three types of prefixes combined, and looks open to even further additions. Last but not least, the meanings of these syllables are clear to the native speakers.

It is therefore suggested that words beginning with this type of syllable be treated like compounds. In Jinghpo morphology, it can be stated that quite a number of words with a prefix (especially a LA one) will drop the prefix when they go into a compound. Naturally, it is possible that some of these syllables may turn into semi-prefixes in the future. In fact one qualified candidate can be found, viz., the second syllable in $\left[n^{33} k^{h} a^{33}\right] \sim\left[t \int \sum^{33} \mathrm{k}^{\mathrm{h}} \mathrm{a}^{33}\right]$ door. Its vowel is reduced to the schwa when it is word-initial in a compound noun, e.g., [ $\mathrm{k}^{\mathrm{ha}}{ }^{55}$ tun $^{55}$ ] 'threshold' ([tun $\left.{ }^{55}\right]$ floor) and [ $\mathrm{k}^{\mathrm{ha}}{ }^{55}$ noi $\left.^{55}\right]$ 'lintel' ([noi $\left.{ }^{55}\right]$ to hang up).

## 3. HISTORY OF PREFIX MORPHOLOGY IN JINGHPO: SAMPLE ETYMOLOGIES

This section outlines the etymologies of some Jinghpo words to highlight the different origins of the semi-prefix and the LA prefix. Since this is largely a reiteration of what has been said in Sections 1.2 and 1.3, the chosen word histories are presented in a schematic format. This format also serves to sharpen the concept of development through time.
(1) The semi-prefix [wă-] qua 'tooth'. The following are the words for 'tooth' in nine TB languages:

| Qiang | [suə] | WT | so | Jinghpo | [ $\mathrm{wa}^{33}$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gyarong | [t2 swa] | Motuo M. |  | Cuona M. | [wa ${ }^{53}$ ] |
| Nusu Nu | [sua ${ }^{55}$ ] | Dulong | [ $\mathrm{sa}^{53}$ ] | Shixing | [ wus $^{33}$ ] |

Based on the first column of cognates above, it can be suggested that the PTB etymon for 'tooth' began with a consonant cluster, which later turned into an [s] in some TB languages, such as Tibetan, and a [w] in others, such as Jinghpo. The

Jinghpo reflex for 'tooth', i.e. [wa ${ }^{33}$ ], then formed compounds with other free morphemes in the same language. The vowel in this initial [wa ${ }^{33}$ ] was in time reduced to the schwa, thus resulting in these existing words:

$$
\begin{array}{ll}
{\left[\text { wă ás }^{55} \mathrm{t}^{\text {ap }}{ }^{55}\right] \text { tooth }+ \text { layer }} & \{=\text { overlapping teeth }\} \\
{\left[\text { wă }^{55} \text { tap }^{55}\right] \text { tooth }+\left[\text { tap }{ }^{31}\right] \text { rise } / \text { protrude }} & \{=\text { a tooth protruding outward }\}
\end{array}
$$

The histories of [wa ${ }^{33}$ ] and [wăs ${ }^{55} \operatorname{tap}^{55}$ ] can then be delineated schematically as follows:


The parentheses around the Gyarong form signifies that the PTB word for 'tooth' will be something like it. (The present paper claims no systematic reconstruction for PTB.)

The diachronic process behind the semi-prefix is also reflected by the following set of existing words in the Jinghpo language:

| $\left[\mathrm{ma}^{31}\right.$ \#pau $\left.^{33}\right]$ | $\left[\mathrm{ma}^{31}\right]$ child $+\left[\right.$ pau $\left.^{33}\right]$ bring up, support $\{=$ foster child $\}$ |
| :--- | :--- |
| $\left[\mathrm{ma}^{31} \mathrm{zun}^{55}\right]$ | twins $\left(\left[\mathrm{zun}^{55}\right]\right.$ side by side, abreast $)$ |
| $\left[\mathrm{n}^{31} \mathrm{pja}^{33}\right]$ | child born in a miscarriage |

$$
\text { (2) The etymology of [wă5 } \left.{ }^{55}{ }^{51}\right] \text { '(a) ox pen; (b) stable': }
$$



The word [wă ${ }^{55}$ loy ${ }^{51}$ ] has had a further stage in its history, for it has been generalized to mean 'stable, as for horses'.
(3) The LA prefix in [la ${ }^{31} \mathrm{mu}^{31}$ ] 'sky' and the synonymous derived semi-prefix [n ${ }^{31}$-]:


An arrow pointing southeast from the PTB level to the transitional compound in the middle line has replaced the usual horizontal arrow. This implies that it is the monosyllabic form of 'sky' that entered into the compound, not the disyllabic $\left[1 a^{31} \mathrm{mu}^{31}\right]$. Whether this detail is historically true is immaterial for the immediate purpose of the present paper.
(4) The word for 'snake' [ $\left[\breve{a}^{33}{ }^{p} \underline{u}^{33}\right]$. The PTB etymon should have an initial consonant cluster, which turned into a LA prefix in Jinghpo.
PTB:

| (WT sbrul, Alike T. $[\mathrm{rbu}])$ |
| :--- |
| Present <br> day: |
| J. $\left[\mathrm{la}^{33} \mathrm{pu}^{33}\right]$ |$\rightarrow$


| $\left[\mathrm{pu}^{33} \mathrm{mut}^{31}\right]$ snake + gray |
| :--- |
| $\{=$ the gray snake, the ribbon snake $\}$ |

The initial syllable of 'snake' in Jinghpo, i.e. [lă ${ }^{33}$-], originates from a protocluster, as reflected by WT sbrul, possibly through an in-between stage such as Alike Tibetan [rbu]. The second syllable in [la $\left.{ }^{33} \mathrm{pu}^{33}\right]$ then became for the native speakers the root morpheme and has combined with other morphemes to form new words such as:

$$
\begin{array}{ll}
{\left[\mathrm{pu}^{33} \mathrm{mut}^{31}\right] \text { snake }+ \text { gray }} & \begin{array}{c}
\{=\text { the gray snake }(\text { Xu } \text { et al. }, \mathrm{p} .673), \\
\text { the ribbon snake (Han., p. } 519)\} \\
{\left[\mathrm{pu}^{33} \mathrm{t} \mathrm{ta}^{31}\right] \text { snake }+ \text { lair }}
\end{array} \\
\{=\text { a snake nest for keeping eggs }\}
\end{array}
$$

Incidentally, the first syllable in [pă ${ }^{31} 3^{3} \mathrm{en}^{31}$ ], the Jinghpo word for 'dragon', may also be related to the WT sbrul 'snake' and/or fibu 'worm'. (The Jinghpo word
 WT rin po, both meaning 'long'.)
(5) The Jinghpo words for 'dog' $\left[k u i^{31}\right]$ and 'elephant' [mă $\left.{ }^{31} \mathrm{kui}^{31}\right]$. The latter word is genetically unrelated to its counterparts in other TB languages, e.g., WT glay t $6^{\text {h }}{ }^{\text {en }}$, literally 'cattle + big', and WB chan ${ }^{2}$. For 'dog' cognates, please refer to the set quoted at the end of Section 1.3.2.3.


The initial syllable in the Jinghpo word for 'elephant' is clearly a LA prefix. It is added to the word for 'dog' to make up a name for a new animal. The word-final [ $\mathrm{kui}^{31}$ ] has then come to acquire the meaning of 'elephant' and formed compounds with other morphemes.

The above etymologies have once again illustrated the two known origins of the Jinghpo prefix: (a) initial consonant clusters in PTB, including the case of ${ }^{*}$ s-
for causativization, and (b) reduced initial syllables in historical compounds of two free lexical morphemes. In the next stage of development, there must have been a proliferation of words with prefix in the Jinghpo lexicon. This was probably due both to a simplification of the consonant systems in the syllable-initial and -final positions and in the vowel system handed down from PTB, and to the accompanying trend for disyllabification. At the same time, some prefixes have also come to acquire the function of changing the part of speech of the root morpheme.

One by-product of this history of prefix morphology is synchronic variation in contemporary Jinghpo. Look at the following examples:

| Semi-prefixes: |  |  |  |
| :---: | :---: | :---: | :---: |
| [ $\mathrm{lam}^{31} \mathrm{sun}^{33}$ ] | $\sim\left[\right.$ num $^{31}$ sun $\left.^{33}\right]$ | $\sim\left[\right.$ ma $^{31}$ sun $\left.^{33}\right]$ | $\sim\left[n^{31}\right.$ sun $\left.^{33}\right]$ trail ([lam $\left.{ }^{33}\right]$ road) [sun ${ }^{33}$ ] small road? ${ }^{292}$ |
| [ $\mathrm{am}^{31} \mathrm{j} \mathrm{e}^{55}$ ] | $\sim\left[\mathrm{num}^{31} \mathrm{je}^{55}\right.$ ] | $\sim\left[m{ }^{\text {a }}{ }^{31} \mathrm{f}^{55}\right]$ | 'A fork of a road' (Han., p. 339) ${ }^{30}$ |
| $\left[\operatorname{lam}^{31} \mathrm{pzo}^{\text {P31 }}\right] \sim\left[\mathrm{num}^{31} \mathrm{p}_{3} \mathrm{o}^{\text {231 }}\right]$ |  |  | $\sim\left[\mathrm{n}^{31} \mathrm{pzo}^{\text {P31] }}\right]$ crossroads |
| [ $\mathrm{lam}^{31} \mathrm{ta}^{\text {931 }}$ ] | $\sim\left[\mathrm{num}^{31} \mathrm{ta}^{\text {a31 }}\right.$ ] |  | [ $\left.\mathrm{p}_{3}{ }^{\text {231 }}\right]$ separate a level road in mountainous areas ${ }^{31)}$ |
|  |  | [mă $\left.{ }^{31} \mathrm{k}^{\mathrm{h}} 3 u n^{33}\right]$ | 'path ... made by small animals' (Han., p. 422) |
| $\left[l u \eta^{31} \mathrm{k}^{\mathrm{h}} 3 \mathrm{ut}{ }^{31}\right] \sim\left[\mathrm{nig}{ }^{31} \mathrm{k}^{\mathrm{h}} 3 u t^{31}\right]$ |  | $\sim\left[n^{31} \mathrm{k}^{\mathrm{h}} 3 \mathrm{ut}{ }^{31}\right]$ | whetstone ([lun ${ }^{31}$-] 'stone') |
| LA prefixes: |  |  |  |
| [ $\mathrm{in}^{31} \mathrm{t}^{3}{ }^{31}$ ] | $\left.\sim[n i]^{31} \mathrm{t}^{3}{ }^{1}\right]$ | $\sim\left[{ }^{31} \mathrm{t}^{31}\right]$ | to assemble |
| [ $\mathrm{num}^{31} \mathrm{t}$ das ${ }^{55}$ ] | $\sim[n i]^{31} \mathrm{t} \mathrm{a}^{55}$ ] | $\sim\left[\mathrm{n}^{31} \mathrm{t} \mathrm{a}^{55}\right]$ | 'Gloss, brightness, luster; (comp. $j a\left[\mathrm{t} \mathrm{a}^{31}\right]$, gold)' (Han., p. 490) |
| [ $\mathrm{num}^{33} \mathrm{t}^{\text {h }}{ }^{33}$ ] |  | $\sim\left[\mathrm{n}^{33} \mathrm{t}^{\mathrm{h}} \mathrm{o}^{33}\right]$ | 'A fire-brand; ... a stick kindled at one end' (Han., p. 506) |
| [ ${ }^{\text {umm }}{ }^{31} \mathrm{aia}^{33}$ ] | $\sim\left[m \breve{a r ~}^{31} \mathrm{zai}^{33}\right]$ |  | <class. for person> \{No [ $\mathrm{n}^{31}$ aii $^{33}$ ] in Han. or Xu et al.\} |
| [ $\mathrm{num}^{31} \mathrm{zi}^{\text {255 }}$ ] | $\sim\left[\mathrm{ma}^{31} \mathrm{l}^{2}{ }^{255}\right]$ |  | dew \{ No [ $\mathrm{n}^{31} \mathrm{i}^{\text {i }}$ 255] $]$ |

Utilizing the principle of synchronic variation as a reflection of diachronic process, the above words show that there are intermediate stage(s) to get to the [n-] form, such as [nin-] or [mă-]. In fact, there is still no variant form beginning with [ $n^{31}$-] for [num ${ }^{31}$ 3ai $^{33}$ ] <class. for person $>$ and [num ${ }^{31} 3^{2955}$ ] 'dew' in either Hanson (1906) or Xu et al. (1983).
29) The Jinghpo word [lam ${ }^{31}$ sun ${ }^{33}$ ] 'trail, path' may be related to the Tibetan word lam sran, which means 'side street' in contemporary Lhasa speech (Goldstein 1978:1118). Yu (1983:1012) has sray sray 'alley, tiny lane'. [sun ${ }^{33}$ ] by itself does not mean anything related to 'road' in Xu et al. (1983:819) or Hanson (1906:598).
30) 'She, $v$. To cross; (an obsolete root;) see numshe and măshe.' (Han., p. 618)
31) The second syllable in [ $\mathrm{num}^{31} \mathrm{ta}^{231}$ ] is from [ $\mathrm{n}^{31} \mathrm{ta}^{931}$ ], which is glossed as 'horizontal' in Xu et al. (p. 562), but as 'level' <adj.> in Hanson (p. 485).

The above examples can also demonstrate another important point. Notice that a single phonetic form [ $\mathrm{n}^{31}$-] is an instance of both the semi-prefix (from [lam ${ }^{33}$ ] 'road' and [luy ${ }^{31}$-] 'stone' in this case) and the LA prefix. The reduction of two full content morphemes into the same form is an important step in the development of [ $\mathrm{n}^{31}$-] toward a semi-prefix. More importantly, there is also the drive to let the same phonetic forms, such as [ $\mathrm{n}^{31}-$ ] and [mă ${ }^{31}-$ ], serve the purposes of both the semi- and the LA prefix.

## 4. THEORETICAL FEASIBILITY FOR FORMING NEW WORDS WITH MEANINGLESS PREFIXES

The previous parts of this paper have presented many data and observations on Jinghpo prefixes. Part 4 is a further attempt to theorize on prefix morphology in Jinghpo. Specifically, it tries to pinpoint the underlying relation among the phonetic format of the initial syllable, prefix syllables that have no specific meaning or function, and the free variation of prefixes.

Two features of prefix morphology in Jinghpo command further theoretical discussion. First, LA prefixes have no meaning, and the meaning of some semiprefixes are obscure to native speakers. Second, there has been a historical trend in Jinghpo to impose a phonetic format on, and thus reduce the number of possible syllables in, the word-initial position. There seems to be a relation between these two features and it will make more sense upon considering a rough figure of the possible syllables in the language.

Based on Liu (1984: 10-16), there are 31 consonant initials in the language, excluding [ f$],\left[\mathrm{ts}^{\mathrm{h}}\right],\left[\mathrm{t} \mathrm{f}^{\mathrm{h}}\right]$ and $[\mathrm{x}]$, which are used in a limited number of recent loanwords from Chinese. With a total of 89 rhymes, there are $31 \times 89=2759$ combinations. This figure is close to the one given in Liu (p. 15), i.e. 2628, since not all initials can go with every rhyme. There are 4 tones in Jinghpo, but one of them, viz. [ ${ }^{51}$ ], is more of a sandhi tone and can thus be ignored in the present calculation. So the number of possible syllables is:
$31 \times 89 \times 3=8277$

Now, multiplying 8277 by itself gives the following number of possible disyllabic words:

$$
8277 \times 8277=68508729
$$

This amount is much more than any language needs. One way to reduce the total number of disyllabic words is to restrict the number of syllables in one of the two positions, initial or final. Jinghpo has opted for the former.

Two more figures pertain to the present discussion. They are the numbers of pages for entries beginning with [lă-] or [mă-] in Xu et al. (1983). The first entry
with [lă-] is [lă $\left.{ }^{31} \mathrm{pa}^{31}\right]$ 'large', which is at about the middle of p .385 , and the last entry with [lă-] is [laa ${ }^{31} \mathrm{tsau}^{31} \mathrm{lap}^{311}$ ] 'a kind of small leaves' (cf. [lap ${ }^{31}$ ] 'leaf'), which is at about the middle of p. 422. This means that entries starting with [lă-] have about $(421.5-385.5=) 36$ pages. On the other hand, the first entry with [mă-] is [mă ${ }^{31}$ $\mathrm{a}^{31}$ ] 'to stutter; <n. $>$ stutter', which is at the end of p .441 , and the last entry with [mă-] is [mă ${ }^{31}$ tsu $^{t^{31}} \mathrm{măa}^{31}{ }^{\text {tsat }}{ }^{31}$ ] 'very coarse', which is at about the end of p. 518. This means that entries starting with [mă-] have about $(518-441=) 77$ pages. Taken together, entries starting with [lă-] or [mă-] amount to $(36+77=) 113$ pages. This makes up $(113 / 913 \times 100=) 12.38 \%$ of the total number of pages in the dictionary proper. Naturally, not all entries starting with [lă-] or [mă-] are disyllabic, but this percentage figure shows that many words in the Jinghpo lexicon indeed begin with a prefix.

Although a Jinghpo prefix may not have any meaning, it can still be contrastive. Both the state of having a prefix or not and which individual prefix there is make a difference. The following three sets of words respectively contain instances of prototypical, semi-, and LA prefixes:

| [ $1 \mathrm{i}^{33}$ ] | heavy |
| :---: | :---: |
| [ $\left[\breve{a}^{31} 1 \mathrm{l}^{33}\right]$ | to make heavy (Xu et al., p. 753) |
| $\left.\left[t \int \underline{a}^{33}\right]^{33}\right]$ | 'Disappointment, hardships' (Han., p. 96); |
|  | $<\mathrm{n} .>$ the state of being heavy (Xu et al., p. 85) |
| $\left[a^{31} \mathrm{l}^{33} \mathrm{a}^{31} t^{\text {h }} \mathrm{i}^{31}\right]$ | <adv.> fat \& clumsily; very slowly (Xu et al., p. 24) |
| [ $\mathrm{li}^{33}$ ] | 'Seed, any grain used as seed' (Han., p. 344) |
| [ ${ }^{33} \mathrm{li}^{33}$ ] | 'Seed; grain used as seed' (Han., p. 494) |
| [mam ${ }^{33} \mathrm{li}^{33}$ ] | 'Seed-grain' (Han., p. 390) |
| [wă ${ }^{33} \mathrm{li}^{33}$ ] | 'A bull kept for breeding' (Han., p. 45) ${ }^{32)}$ |
| [lă $\left.{ }^{31} \mathrm{li}^{33}\right]$ | 'To be green, fresh, verdant' (Han., p. 369) |
| [mă $\left.{ }^{31} \mathrm{li}^{3}{ }^{3}\right]$ | four \{cf. WT bzi\} |
| [nig ${ }^{31} \mathrm{li}^{33}$ ] | 'An example', model (Han., p. 469, which also gives 'nli') |
| [num ${ }^{31} \mathrm{l}^{33}$ ] | 'Soot' (Han., p. 475); |
|  | smelling of fire (Xu et al., p. 645) \{[num ${ }^{31}$-] < [wan ${ }^{31}$ ] 'fire'? |
| [sum ${ }^{31} \mathrm{li}^{33}$ ] | 'To adorn; ... to dress, attend to the toilet' (Han., p. 595) |

There also exist occasional instances in which the prefix does not change the root's part of speech and the meaning of the disyllabic word is related to that of the root, for example:

| $\left.[k o]^{31}\right]$ <br> $\left[\operatorname{tup}^{31}\right]$ | body <br> to hammer and forge; <br> to thresh grain | $\left[\mathrm{a}^{31} \mathrm{kon}^{31}\right]$ <br> $\left[\mathrm{a}^{31} \mathrm{tup} \mathrm{p}^{31}\right]$ | figure <br> to pound an aching part of <br> the body, as in massaging |
| :--- | :--- | :--- | :--- |
| $\left[\sin ^{31}\right]$ | internal organs | $\left[\mathrm{ma}^{31} \sin ^{31}\right]$ | heart <as related to emotions > |

32) Hanson (1906:45) has 'uli' for this word, while Xu et al. (1983:867) has 'wali'.

| [kui ${ }^{31}$ ] | dog | [mă ${ }^{31} \mathrm{kui}^{33}$ ] | elephant |
| :---: | :---: | :---: | :---: |
| [tum ${ }^{33}$ ] | storehouse; little house | [ $\mathrm{n}^{31}$ tum ${ }^{55}$ ] | bamboo tube as a container |
| [tfut ${ }^{55}$ ] | corner, as of a table | [ $\mathrm{n}^{55} \mathrm{t}$ [ut ${ }^{55}$ ] | corner, nook |
| [sam ${ }^{55}$ ] | appearance; behavior | [ ${ }^{31}$ sam $^{55}$ ] | imposing or awe-inspiring posture ${ }^{33)}$ |
| [po ${ }^{33}$ ] | head | [ $\mathrm{nin}{ }^{31} \mathrm{po}^{33}$ ] | leader |
| [pat ${ }^{55}$ ] | to dam up [water]; | [ $k \breve{a}^{31} \mathrm{pat} t^{55}$ ] | to take up space and |
|  | to fill up [a hole] |  | block off the way |
| [ $\mathrm{si}^{31}$ ] | fruit | $\left[1 a^{55} \mathrm{~s}^{51}\right]$ | soybean |

The two members of the word pairs above have the same part of speech and are related in meaning. This is possible because an extra syllable, which is meaningless, can make the distinction in Jinghpo morphology. For another illustration, Hanson (1906) has this set of words:

| ulang | '(from lang, to handle.) A handle of an axe, spade or hoe; comp. gunglang.' (p. 45) \{walang [wă ${ }^{33}$ lay ${ }^{33}$ ] in Xu et al. (p. 866) \} |
| :---: | :---: |
| ginlang | 'the handle, as of a hoe, rake or dipper' (p. 154) |
|  | \{[kin $\left.{ }^{31} \mathrm{lan}{ }^{33}\right]$ the handle of an umbrella (Xu et al., p. 193) \} |
| gunglan | 'the handle, as of an edge-tool; comp. ulang and ginlang' (p. 169) |

The LA prefix in Jinghpo demonstrates that it is feasible for a natural language to create new words with a small inventory of word-initial syllables which can be devoid of any meaning.

Seen in the new light of this theoretical feasibility, free variation implies that it does not matter which individual prefix is actually used. For example, there are a total of five words for the meaning of 'vine, creeper' in Hanson (1906:475) and Nhkum et al. (1981:651). They are ru, namru, numru, sumru and shingru. The former dictionary has shingru and namru as free variants of numru, while the latter gives ru, numru and sumru. Since these two dictionaries record the Jinghpo lexicon for two fieldwork locations, it means that in each of these two locations, there are at least three variants for 'vine; creeper'.

## 5. CONCLUDING REMARKS

There are three major aspects in the present study of prefix morphology in Jinghpo. They are synchronic description, diachronic development, and general
33) It is Hanson (1906) who indicated the link between the two words in question. But strangely enough, even though [sam ${ }^{55}$ ] can, as specified under its own entry (p. 581), be either a verb ('to appear, seem') or a noun ('appearance, visage'), the [ $\mathrm{sam}^{55}$ ] in [ $\mathrm{n}^{31}$ sam $^{55}$ ] is said to mean 'to seem' (p. 502). The gloss in this paper for [ $\mathrm{n}^{31} \mathrm{sam}^{55}$ ] is based on Xu et al. (1983:632), and is slightly different from that of Hanson's.
morphology. For the first aspect, the classification of Jinghpo prefixes in this paper is more comprehensive than the one in Xu (1986), but there is still a need to doublecheck the details and individual cases. With respect to the second aspect, TB cognates found here will be of interest to Tibeto-Burmanists working on comparative linguistics. On the other hand, more information about word-internal structure in other TB languages will ensure a more detailed and accurate reconstruction of PTB morphology, which will in turn shed new light on the origins of more Jinghpo prefixes. As for the third aspect, prefix phenomena in other TB languages need further study, for semi-prefixes and LA prefixes may also be common there. Two examples of the former can be found in Lhasa Tibetan: [n ${ }^{13}{ }^{13} \mathrm{xy}:{ }^{51}$ ] 'fish bone',
 'three' plus [sum ${ }^{55}$ ] 'leg' (Yu 1983: 376 \& 35). Examples of the latter are: the word for 'three' in Darang Deng [ $\mathrm{ka}^{31}$ sumg ${ }^{35}$ ], cf. WT gsum, and the Dulong word for 'elephant' [duu ${ }^{31} \mathrm{guif}^{55}$ ]. Lastly, there is the contrast between the prefix and the suffix means for disyllabification towards which a ST language inclines. For example, Tibetan has nominal suffixes such as pa and ma, as in WT rus pa 'bone' and mtshe ma 'twins' respectively.

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## Appendix Disyllabic Jinghpo words in which the second syllable is word initial elsewhere (see Part 2 of the paper)

| [lă ${ }^{31}$ jug ${ }^{33}$ ] |  | [ju9 ${ }^{31}$-] | finger |
| :---: | :---: | :---: | :---: |
| [ ${ }^{\text {a }}{ }^{31} \mathrm{ko}^{33}$ ] |  | [ $\mathrm{ko}^{33}$-] | leg |
| [la ${ }^{31} p^{\text {h }} u^{31}{ }^{31}$ ] |  | [ $\mathrm{p}^{\text {u }} \mathrm{t}^{31}$-] | knee |
| [ $1{ }^{55} \mathrm{ti}^{51}$ ] |  | [ti ${ }^{31}$-] | nose |
| [ $1 \mathrm{a}^{31} \mathrm{pu}{ }^{31}$ ] |  | [pu ${ }^{31}$-] | pants; skirt |
| [ $1 \mathrm{ar}^{55} \mathrm{k}^{\mathrm{h}} \mathrm{on}^{51}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} \mathrm{On}^{31}$-] | bracelet |
| [lă ${ }^{55} \mathrm{~kat}^{55}$ ] |  | [ $\mathrm{kat}^{31}$-] | banyan |
| [lă ${ }^{31} \mathrm{~kat}^{31}$ ] |  | [ $\mathrm{kat}^{31}$-] | bee |
| [ $1 \breve{a}^{55} \mathrm{ya}^{55}$ ] | wild banana | [ $\mathrm{a}^{231}$-] | banana |
| [1a ${ }^{33} \mathrm{pu}{ }^{33}$ ] | banana < generic n.> |  |  |
| [la ${ }^{33} \mathrm{pu}^{33}$ ] |  | [ $\mathrm{pu}^{33}$-] | snake |
| [lă ${ }^{55} \mathrm{p}^{\mathrm{h}} \mathrm{o}^{55}$ ] | leaves for wrapping food | [ $\mathrm{p}^{\text {h }}{ }^{\text {P55 }}$-] | leaf |
| [ $\left.{ }^{\text {a }}{ }^{5} \mathrm{si}^{51}{ }^{1}\right]$ |  | [si ${ }^{31}$-] | soybean |
| [mă ${ }^{31} \mathrm{jam}^{33}$ ] |  | [jam ${ }^{31}$-] | slave |
|  |  | [jum ${ }^{31}$-] | slave |
| [mă $\left.{ }^{31} \mathrm{ju}^{331}\right]$ |  | [ju ${ }^{331}$-] | throat |


| [mă ${ }^{31} \mathrm{kui}^{33}$ ] |  | [kui ${ }^{31}$-] | elephant |
| :---: | :---: | :---: | :---: |
| [ $\mathrm{ma}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{ai}^{3}{ }^{33}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} 3 \mathrm{i}^{31}{ }^{\text {- }}$ ] | bridge |
| [mă ${ }^{31} \mathrm{tai}^{33}$ ] |  | [tai ${ }^{31}$-] | god of the sky |
| [ $\mathrm{ma}^{55} \mathrm{ti}^{\text {ij }}$ ] $]$ |  | [ $\mathrm{it}^{31}$-] | mushroom |
| [mă ${ }^{55}$ tjap ${ }^{55}$ ] |  | [t $\mathrm{Sap}^{31}$-] | pepper, chili |
| [ma ${ }^{\text {31 }}$ ung $^{33}$ ] | the spine | [3u9 ${ }^{31}$-] | the back |
| [ $\mathrm{n}^{31} \mathrm{kup}^{31}$ ] |  | [kup ${ }^{31-}$ ] | mouth |
| [ $\mathrm{n}^{33} \mathrm{kjin}^{33}$ ] | cucumber | [ $\mathrm{jjin}^{31}$-] | gourd, melon, etc. |
| [ ${ }^{31} \mathrm{kJau}^{31}$ ] | black monkey | [ $\mathrm{kzau}^{31}$-] | gibbon |
| [ ${ }^{33} \mathrm{k}^{\mathrm{h}} \mathrm{zan}^{33}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} \mathrm{an}^{31}{ }^{31}$ ] | vegetable |
| [ $\mathrm{n}^{31} \mathrm{lu}^{31}$ ] |  | [luy ${ }^{31}$-] | stone |
| [ $\mathrm{n}^{31} \mathrm{pu}^{31}$ ] |  | [ $\mathrm{pu}^{31}$-] | walnut |
| [ $\mathrm{n}^{31} \mathrm{pun}{ }^{33}$ ] |  | [pun ${ }^{31}$-] | wind |
| [ $\mathrm{n}^{55} \mathrm{p}^{\text {hj }}{ }^{\text {5 }}$ ] $]$ |  | [ $\mathrm{p}^{\mathrm{h}} \mathrm{en}^{31}{ }^{\text {- }}$ ] | satchel |
| [ $\mathrm{n}^{31}$ tum ${ }^{\text {s5 }}$ ] |  | [tum ${ }^{31-}$-] | bamboo tube as container |
| [ $\mathrm{n}^{31} \mathrm{zun}^{33}$ ] |  | [3u9 ${ }^{33}$-] | horn |
| [ $\mathrm{n}^{33} \mathrm{k}^{\text {ba }}{ }^{33}$ ] |  | [ $\left.\mathrm{k}^{\mathrm{h}}{ }^{55}-\right]$ | door ${ }^{34}$ |
| $\sim\left[\mathrm{t} \int \mathrm{in}^{33} \mathrm{k}^{\mathrm{h}} \mathrm{a}^{33}\right]$ |  |  |  |
| [ ${ }^{33} \mathrm{k}^{\mathrm{h}} \mathrm{zan}^{33}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} 3 \mathrm{n}^{31}$-] | vegetable |
| $\sim\left[t 5 \underline{i n}^{33} \mathrm{k}^{\mathrm{h}} \mathrm{ma}^{33}\right]$ |  |  |  |
| [ $\mathrm{n}^{31} \mathrm{k}^{\mathrm{h}} 3 \mathrm{t}^{31}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} 3 \mathrm{t}{ }^{31}$-] | whetstone |
| $\left.\sim[1 u)^{31} \mathrm{k}^{\mathrm{h}} \mathrm{ut}^{31}\right]$ |  |  |  |
| [ a $^{33}{ }^{\text {k }}$ 3ui ${ }^{33}$ ] |  |  | carbuncle, boil |
| [ $\int^{31}{ }^{31} \mathrm{tai}^{33}$ ] |  | [tai ${ }^{31}$-] | umbilical cord |
| [ [ $5^{55}{ }^{5} 0^{55}$ ] |  | [to ${ }^{\text {931-] }}$ | pillar, column |
| [ $\left.5^{31} 30^{331}\right]$ |  | [30 ${ }^{331}$-] | wild fire |
| $\left[\int \mathrm{a}^{33} \mathrm{z}^{33}\right]$ |  | [ $3^{31}$-] | bamboo rat |
| [t ${ }_{\text {a }}^{\text {a }}{ }^{55} \mathrm{k}^{\mathrm{h}} \mathrm{an}^{51}$ ] |  | [ $\mathrm{k}^{\text {han }}{ }^{31}-$ ] | crab |
|  |  | [nai ${ }^{33}$-] | baby |
| [t $\int_{a^{55}}^{5} \mathrm{u}^{51}$ ] |  | [ $3 \mathrm{u}^{31}$-] | alcoholic beverage |
| $\left[t . \breve{a}^{31} \mathrm{k}^{\mathrm{h}} \mathrm{a}^{1{ }^{33}}\right]$ |  | [ $\mathrm{k}^{\mathrm{h}} \mathrm{ai}^{33}{ }^{33}$ ] | orphan |
| [ $k \mathrm{ar}^{31} \mathrm{puy}{ }^{31}$ ] |  | [puy ${ }^{31}$-] | a type of Jinghpo dance |
| [ $\left.k \check{a r ~}^{31} \mathrm{p}^{\text {ha }}{ }{ }^{311}\right]$ |  | [ $\mathrm{ph}^{\mathrm{h}} \mathrm{a}^{231}$ ]] | shoulder |
| [nam ${ }^{31} \mathrm{t}^{\text {h }} \mathrm{un}^{33}$ ] |  | [ $\mathrm{t}^{\mathrm{h}} \mathrm{un}^{33}$-] | lime |
| [puy ${ }^{31} \mathrm{sap}^{31}$ ] |  | [sap ${ }^{31}$-] | towel (or dishcloth) gourd |
| [ $\mathrm{p}^{\mathrm{h}} \mathrm{un}^{31} \mathrm{tu}^{31}$ ] |  | [tu ${ }^{31-}$-] | cogon |
| [pa ${ }^{33} \mathrm{k}^{\mathrm{h}} \mathrm{am}^{33}$ ] |  | [ $\mathrm{k}^{\mathrm{h}} \mathrm{am}^{31}$-] | hamadryad |
| $\sim\left[p u^{33} \mathrm{k}^{\mathrm{h}} \mathrm{am}^{33}\right]$ |  |  |  |
| [pas ${ }^{33}$ lon ${ }^{33}$ ] |  | [ $\mathrm{log}^{31}$-] | clothing |
| [ $\mathrm{pa}{ }^{31}{ }^{\text {si }}{ }^{33}$ ] |  | [si ${ }^{31}$-] | cotton |
| [sum ${ }^{55} \mathrm{pza}^{955}$ ] |  | [p3a ${ }^{\text {311-] }}$ ] | caterpillar |

34) As an entry on its own in Xu et al. (1983), the morpheme for 'door' has the pronunciation of $\left[\mathrm{k}^{\mathrm{h}}{ }^{55}-1\right.$ ( p .222 ), but it has the schwa when word-initial in other entries, such as [ $\left.\mathbf{k}^{\mathrm{h}}{ }^{55} \mathrm{tun}^{55}\right]$ 'threshold' (p. 223).

| [tum ${ }^{31} \mathrm{si}^{\text {33] }}$ ] |  | [si ${ }^{311}$-] | porcupine |
| :---: | :---: | :---: | :---: |
| [tum ${ }^{31} \mathrm{su}^{33}$ ] |  | [su ${ }^{31-}$ ] | huangniu cattle |
| [tsas ${ }^{55} \mathrm{mat}{ }^{55}$ ] |  | [mat ${ }^{31}$-] | nettle |
| $\left[\mathrm{t} / \mathrm{in}^{31} \mathrm{p}^{\mathrm{h}} \mathrm{a}^{\text {231 }}\right.$ ] |  | [ $\mathrm{ph}^{\text {ha }}$ 231-] | strap of a satchel, basket, etc. |
| [ $\left.\mathrm{u}^{31} \mathrm{ko}^{\mathbf{3 3 1}}\right]$ |  | [ $\mathrm{ko}^{231}$-] | hornbill |
| [pai ${ }^{31}$ nam $^{33}$ ] | goat | [nam ${ }^{31}$-] | sheep, goat |

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[^1]:    9) The root in the Jinghpo word [mă ${ }^{31} \mathrm{kap}^{31}$ ] 'lid' may be related to the root in [ $\mathrm{n}^{31} \mathrm{kup}^{31}$ ] 'mouth'. This relation is true in Lhasa Tibetan: $k^{\text {ha }}$ gtcod 'lid, cork', literally $\mathbf{k}^{\mathrm{h}}{ }^{\mathrm{h}}$ 'mouth' plus gtcod 'to close'.
[^2]:    15) Hanson (1906:702) has a different spelling for this word, i.e. 'wudik', equivalent to [wă ${ }^{55}$ tik ${ }^{55]}$ in the IPA transcription system used in Xu et al. (1983).
