

The Characteristics of the Burmic Family of Tibeto-Burman*

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The history of the various names used for the Burmic branch of Tibeto-Burman (TB) and its components are outlined. Some salient phonological developments which differentiate Burmic from other TB subgroups and some further internal developments are briefly exemplified. The morphology reconstructible for Burmic, which is much less extensive than that found in many other TB branches, is discussed. The main syntactic characteristics of Burmic, typical of verb-final TB, are given, along with the reconstructed forms for various syntactic markers. Some examples of lexical differences providing evidence for Burmic as a separate group within TB and for subgrouping within Burmic are presented. The paper also provides the Burmic forms for the Swadesh 100-word list in an appendix, giving reconstructed etyma and forms from Burmese and from representative languages in the three main branches of Ngwi. Examples are cited below with reference to the numbers of the forms in this appendix.

Key words: Tibeto-Burman, Burmic subgroup, Ngwi, phonological, grammatical & lexical reconstruction

1. Terminology

The names used for this component of TB differ, but there is general agreement in all classifications of TB and/or Sino-Tibetan (ST)—Shafer (1966-1974), Benedict (1972), Bradley (1997), van Driem (1997), Matisoff (2003) and so on—about its status as a major and cohesive group within TB and/or ST. There is also general agreement that it has two main subgroups. For the whole group, Shafer (1966-1974) used the term Burmic, Benedict (1972) preferred Burmese-Lolo, and Burling (1967) and many subsequent scholars use the term Lolo-Burmese. Chinese scholars use the term Mian-Yi, the first derived from the Chinese term for Burmese, ultimately derived from the

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Burmese autonym Mran as reflected in Myanmar, and the second from Yi, the post-1950 replacement said to have been chosen by Chairman Mao to replace the former Chinese term Lolo and based on another term formerly used to refer mainly to Dai groups including peoples now classified as Zhuang and Buyi in China.

The two subgroups are most often called Burmish and Loloish, following Shafer. Chinese scholars call the former the Mian Branch and the latter the Yi Branch. Recognizing the negative view of the term Lolo held by some speakers and scholars in China, the blended term Yipho was coined by Benedict at a conference in Xichang, Liangshan, Sichuan in 1992, combining the new Chinese term Yi and the Nosu form of the widespread TB male suffix, a cognate derived from Burmic **ʔpa*². Instead of the problematic exonymic terms Loloish, Yi Branch or Yipho, I prefer to use a term derived from what was the probable autonym of these groups, Ngwi, a cognate of the widespread TB etymon for ‘silver’ (Bradley 2005:164-166), which is not attested within Ngwi in its original meaning.

2. Phonology

The clearest and most strongly-attested innovative characteristics of Burmic are phonological, as laid out in detail in Bradley (1979a). These include the development of a third reconstructed tone category in non-stop final rhymes throughout Burmic (Burling 1967) and the presence of prenasalized stop and affricate initials **mb *nd *nts *ɲc *ŋg* in numerous etyma.

Due to phonological developments, the latter is not supported by Burmese forms, in which these have merged with other **voiced* initials, for example into the voiceless unaspirated initials of Burmese; this merger is restricted to Burmese itself, and is not present in other Burmish languages. The subsequent redevelopment of voiced stop/affricate initials in Burmese is somewhat irregular but conditioned primarily by medial juncture voicing; for example, 38 ‘head’, written *u*² *khon* is normally /gãu⁴²/ in spoken Burmese, with the initial of the second syllable voiced and then the first syllable, the TB cognate, lost. Another example where the first syllable is still present is 42 ‘mouth’, written *pa*² *cap*, spoken Burmese /bəza?/. Some of these voiced initials are now written with voiced initials, but most are still written with voiceless unaspirated or aspirated initials. Thus, the voicing development must have started before the Burmese orthography stabilized about 800 years ago; some of this voicing is already seen in the earliest Burmese inscription from 1112 AD, as in the noun compound *maŋ.gri* ‘great king’, the postverbal *bri* perfective marker, and so on, which are written morphophonemically with voiceless initials in modern Burmese. Some grammatical forms such as spoken Burmese 4 ‘this’ and 7 ‘what’ and a few frequent lexical items such as

‘market’ /ze⁴²/ are now written with voicing, perhaps reflecting lost former first syllables and the fact that the change started or was most salient in frequent words.

***Tone 3** is found in a relatively small proportion of the etyma reconstructed with non-stop final rhymes: 13 per cent of securely-reconstructed etyma (Bradley 1979a:228) and a slightly higher proportion of less-securely reconstructed etyma. Etyma reconstructed with ***Tone 1** and ***Tone 2** are both about the same proportion of such etyma, over 40 per cent each. There are a few etyma which differ between Burmish and Ngwi as to their membership in the ***Tone 3** category; for example, 59 ‘know’ reflects ***Tone 3** in Burmic but ***Tone 2** in Ngwi; 36 ‘feather’ is the reverse, ***Tone 2** in Burmish, ***Tone 3** in Ngwi. The etyma exemplified below which reflect ***Tone 3** in both branches of Burmic are 3 ‘we (inclusive)’, 33 ‘egg’, 73 ‘moon’, 95 ‘full’ and 99 ‘dry’, among many other TB cognates. This is one of the strongest and most consistent Burmic phonological features, absent from languages which have sometimes been subgrouped with Burmic, such as Naxi (Bradley 1975), Bai and Tujia.

The prenasalized stops are always homorganic in Burmic, whatever their TB origins. They occur in a large number of solid TB etyma where no obvious TB nasal prefix source can be discerned, such as 54 ‘drink’, TB (Matisoff 2003) ***daŋ**, Burmic ***ndaŋ**¹, and 95 ‘full’, TB (Matisoff 2003) ***bliŋ/pliŋ**, Burmic ***mbliŋ**³; as well as in some innovative etyma, such as ‘buckwheat’ ***ŋga**². In the Qiangic component of TB, there are also numerous etyma with prenasalized stops, not always homorganic. However, the etyma with prenasalized stops in Qiangic and Burmic are mainly different; the distribution of prenasalized stops in etyma is a criterion for linking the Na languages Naxi, Na and Namuyi with Qiangic rather than Burmic (Bradley 1975, 2008a).

There are also innovations within one or other subgroup of Burmic. One well-known example is the development of a tonal contrast in syllables with stop-final rhymes in Ngwi, with a higher tone conditioned by a **voiceless* initial and a lower tone conditioned by a **voiced* initial (Matisoff 1972). In most languages, cognates of the ***H** stopped tone have a similar pitch value to ***Tone 3**, most often mid level; while cognates of the ***L** stopped tone most often have a low pitch value similar to one widespread reflex of ***Tone 2** in many Ngwi languages (or ***Tone 1** in some others). Both ***H** and ***L** most often remain distinct from the non-stop final tones in modern Ngwi languages by retaining a final glottal stop, creaky or harsh phonation, or by pitch and contour innovations such as becoming the sole high tone (Nosu ***L** > 55), becoming a new contour tone (some Lahu ***L** > 35) and so on. Burmish languages other than Burmese show a variety of separate splits in syllables with stop-final rhymes; Burmese itself has no split, all have a high short tone with a final glottal stop. Tonal splits in syllables with stop-final rhymes seen in languages such as Naxi have underlyingly similar conditioning, but differ in detail, in their outcomes and thus in the lexical forms

in each tonal category. For example, the high level tone of Naxi can not be related to any specific tone category in Burmic or Ngwi.

There are various phonological criteria for subgrouping within the Burmish subgroup of Burmic, which of course includes Burmese, the earliest literary language within the group, as well as its dialects (Arakanese, Tavoyan, Intha and so on), the closely related language Hpun (Yabu 2003), and the more distantly related North Burmish cluster which includes Tsaiwa/Atsi/Zi, Lawngwaw/Langsu/Maru, Lachik/Lashi, Ngochang/Achang/Maingtha and so on; for details see Bradley (1997). One major change in Burmese and its dialects only is the merger of alveolar and palatal affricates, **ts/*c* and so on. A parallel but separate merger is also seen in some Ngwi languages such as Central Ngwi Lahu, Northern Ngwi northern Nisu, Southern Ngwi Mpi and so on, but not in any other Burmish language; this change has also largely diffused into Hpun, but not completely; the last elderly speakers of Hpun still retain a few words with original /ts/ and /ts^h/. Burmese has also merged not just prenasalized voiced but also all other originally voiced stops and affricates to voiceless unaspirated. This is one step further than most other Burmish languages, which either retain a voiced series alongside voiceless unaspirated and aspirated series, like Hpun, or have a three-way unaspirated, aspirated and glottalized contrast for stops and affricates. However, there are few phonological innovations which link all of Burmish but are absent in Ngwi. For a thorough phonological reconstruction of Northern Burmish, see Mann (1998).

Criteria for subgroups within Ngwi include various characteristic secondary tonal splits, such as in the **L* stop-final category in many Central Ngwi languages such as Lisu, Lahu, and so on. In these languages, **L* has a regular low falling glottal stop final reflex, but also a conditioned high reflex after certain **s* and **ʔ* prefixed initials, high level in Lisu and high rising in Lahu. Another typical Central Ngwi split is in **Tone 2*, with innovative high and low tone contrasts also conditioned by initial consonant environments.

3. Morphology

Some of the morphology found in Burmic derives from TB sources (Wolfenden 1929, LaPolla 2003). The main example is the so-called causative prefix **s-*, a valency-increasing device as in Lisu /do³³/ ‘drink’ from 54 **ndaŋ*¹, /to⁴⁴/ ‘give to drink’ from **s-ndaŋ*¹. This is reflected in a relatively small number of verbs in most Burmic languages, in phonological environments where the prefix can be reflected by distinct initial or tonal outcomes, as in the Burmese h/non-h pairs (Okell 1969:205-208) or in Lahu (Matisoff 1973[1982]:32-34) among many other Burmic languages. This prefix is not productive in any Burmic language.

Other morphology is innovative within Burmic or one of its subgroups. For example, the positive extensive or dimensional verbs show consistent patterns of grammaticalization in Ngwi languages; the verb 10 *Cmya² ‘many’ also becomes a question word *ʔə-Cmya³ ‘how many’, a bound nominal form *ʔCmya³ ‘quantity’ and an equative or first syllable of reduplicated adverbial form *Cmya¹ ‘equally many/a lot’ with semantic bleaching and prefixes leading to different initial and tonal outcomes (Bradley 1995). Parallel processes apply to a small set of verbs including 13 ‘big’ and 14 ‘long’ among others; Ngwi languages differ as to how many positive extensives grammaticalize in this way. This innovation is absent from Burmish.

Table 1 shows the positive and negative extensive forms in Southern Lisu (Bradley et al. 2006). The first nine positive forms grammaticalize; the last two positive forms and the negative forms do not grammaticalize and are included for illustrative purposes.

Table 1: Extensive forms in Southern Lisu

‘many’	mja ²¹	‘few’	ɲi ⁵⁵
‘far’	ɣu ²¹	‘near’	p ^h a ³³ ti ⁵⁵
‘tall/high’	mo ⁴⁴	‘low/short’	∅ ⁴⁴
‘big’	wu ²¹	‘small’	zo ⁴⁴
‘long (distance)’	ʃɿ ⁴⁴	‘short (distance)’	no ⁵⁵
‘long (time)’	mu ⁴⁴ (ʃɿ ⁴⁴)	‘short (time)’	du ⁵⁵
‘thick (inanimate)’	t ^h u ³³	‘thin (inanimate)’	ba ²¹
‘wide’	ɦi ⁴⁴	‘narrow’	(Chinese)
‘deep’	ne ⁵⁵	‘shallow’	t ^h ɛ ²¹
‘heavy’	li ²¹	‘light’	lo ³³
‘fat (animate)’	ts ^h u ³³	‘thin (animate)’	tɕø ⁴⁴

Table 2 shows the corresponding grammaticalized question, adverbial, intensified adverbial, bound nominal, and equative forms in Southern Lisu, which are exclusively based on the positive forms but have bleached meanings which subsume the negative forms as well. The forms are listed in the same order as in Table 1. The question forms mean ‘how many?’, ‘how far?’, and so on. The adverbial forms mean ‘many’, ‘far’, and so on. The intensified adverbial forms mean ‘very many’, ‘very far’, and so on. The bound nominal forms are either bound forms suffixed to a noun stem and meaning ‘quantity of N’, ‘distance of N’, and so on, or abstract nominals plus the suffix /za⁴⁴/ and meaning ‘quantity’, ‘distance’, and so on. The equative forms mean ‘exactly as many’, ‘exactly as far’, and so on. Gaps reflect the absence of a grammaticalized form; there is no intensified adverbial or equative derived from ‘deep’ nor adverbial forms derived from ‘long (time)’. In ‘long (time)’, the possible extra syllable (‘long (distance)’) in the

question form and the absence of the adverbials may be related to the fact that ‘now’ is /a⁴⁴mu⁴⁴/, itself perhaps derived from ‘what time?’. Note that in Southern Lisu, as in most other dialects, other positive verbs of dimensional extent, such as /li²¹/ ‘heavy’ and /ts^hu³³/ ‘be fat (animate)’, lack the types of forms seen in Table 2 below.

The grammaticalized forms other than /ne⁵⁵/ ‘deep’ all show consistent and parallel tones within each grammatical category, which (where they differ) reflect different proto-tones as discussed above. These are /⁴⁴/ in the question, adverbial, and bound nominal forms, and /⁵⁵/ in the first syllable of the intensified adverbial and in the equative. By contrast, the /⁵⁵/ tone in ‘deep’ is stable, unlike the forms with /²¹/, /³³/, or /⁴⁴/ in the verb form.

Table 2: Grammaticalized forms of extent in Southern Lisu

	Question	Adverbial	Intensified Adverbial	Nominal	Equative
‘many’	a ⁴⁴ mja ⁴⁴	a ⁴⁴ mja ⁴⁴ mja ⁴⁴	a ²¹ mja ⁵⁵ mja ⁴⁴	+mja ⁴⁴ /mja ⁴⁴ za ⁴⁴	tø ⁴⁴ mja ⁵⁵ a ²¹
‘far’	a ⁴⁴ ɣu ⁴⁴	a ⁴⁴ ɣu ⁴⁴ ɣu ⁴⁴	a ²¹ ɣu ⁵⁵ ɣu ⁴⁴	+ɣu ⁴⁴ /ɣu ⁴⁴ za ⁴⁴	tø ⁴⁴ ɣu ⁵⁵ a ²¹
‘high’	a ⁴⁴ mo ⁴⁴	a ⁴⁴ mo ⁴⁴ mo ⁴⁴	a ²¹ mo ⁵⁵ mo ⁴⁴	+mo ⁴⁴ /mo ⁴⁴ za ⁴⁴	tø ⁴⁴ mo ⁵⁵ a ²¹
‘big’	a ⁴⁴ wu ⁴⁴	a ⁴⁴ wu ⁴⁴ wu ⁴⁴	a ²¹ wu ⁵⁵ wu ⁴⁴	+wu ⁴⁴ /wu ⁴⁴ za ⁴⁴	tø ⁴⁴ wu ⁵⁵ a ²¹
‘long(d)’	a ⁴⁴ ʃl ⁴⁴	a ⁴⁴ ʃl ⁴⁴ ʃl ⁴⁴	a ²¹ ʃl ⁵⁵ ʃl ⁴⁴	+ʃl ⁴⁴ /ʃl ⁴⁴ za ⁴⁴	tø ⁴⁴ ʃl ⁵⁵ a ²¹
‘long(t)’	a ⁴⁴ mu ⁴⁴ (ʃl ⁴⁴)			+mu ⁴⁴ /mɿ ⁴⁴ za ⁴⁴	tø ⁴⁴ mu ⁵⁵ a ²¹
‘thick’	a ⁴⁴ t ^h u ⁴⁴	a ⁴⁴ t ^h u ⁴⁴ t ^h u ⁴⁴	a ²¹ t ^h u ⁵⁵ t ^h u ⁴⁴	+t ^h u ⁴⁴ /t ^h u ⁴⁴ za ⁴⁴	tø ⁴⁴ t ^h u ⁵⁵ a ²¹
‘wide’	a ⁴⁴ hi ⁴⁴	a ⁴⁴ hi ⁴⁴ hi ⁴⁴	a ²¹ hi ⁵⁵ hi ⁴⁴	+hi ⁴⁴ /hi ⁴⁴ za ⁴⁴	tø ⁴⁴ hi ⁵⁵ a ²¹
‘deep’	a ⁴⁴ ne ⁵⁵	a ⁴⁴ ne ⁵⁵ ne ⁵⁵		+ne ⁵⁵ /-	tø ⁴⁴ ne ⁵⁵ a ²¹

Southern Lisu speakers differ as to how many of the abstract nominal forms with /za³³/ they use or accept; some instead use /dza³³/ in one or more of these. The following examples illustrate the use of these forms. The form /mja²¹/ ‘many’ behaves differently, both in that it can be followed by a classifier as in (2) and thus can operate as a numeral, and in that its question form is productively used with any verb including with other positive extent verbs as in (3c) and (4c), instead of their grammaticalized forms, and with other verbs which do not grammaticalize in this way as in (6) and (7) and including the negative extent forms of verbs whose positive does grammaticalize, such as in (5). The pattern of (1c) with cognate question form and verb is not preferred, but occurs for some speakers.

- (1) a. a⁴⁴mja⁴⁴ tɕ^hi⁴⁴ dʒo³³ a²¹? t^hø³³ mja⁴⁴ dʒo³³ a³³
 how.many reach exist Q this quantity exist DEC

- b. $\alpha^{44}le^{44}$ mja^{44} $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ k^hu^{55} mja^{21} a^{33}
 which quantity exist Q this extent many DEC
- c. $?a^{44}mja^{44}$ $t\phi^{h:44}$ mja^{21} $\alpha^{?21?}$
 how.many reach many Q
 ‘How many are there?’ There are this many.’
- (2) a. $\alpha^{44}mja^{44}$ wa^{21} $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ mja^{44} $d\zeta o^{33}$ a^{33}
 how.many CLF.human exist Q this quantity exist DEC
- b. $t^h\emptyset^{33}$ k^hu^{55} mja^{21} a^{33}
 this extent many DEC
 ‘How many people are there?’ There are this many.’
- c. sa^{21} wa^{21} $d\zeta o^{33}$ a^{33}
 3 CLF.human exist DEC
 ‘There are three people.’

With the positive forms from ‘far’ to ‘thick’ in Table 1, the possible patterns are as follows, as exemplified by ‘far’; any other verb apart from / $\mu u^{44}\int_1^{44}$ / ‘long (time)’ is parallel.

- (3) a. $\alpha^{44}yu^{44}$ $t\phi^{h:44}$ $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ yu^{44} $d\zeta o^{33}$ a^{33}
 how.far reach exist Q this distance exist DEC
- b. $\alpha^{44}le^{44}$ yu^{44} $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ k^hu^{55} yu^{21} a^{33}
 which distance exist Q this extent far DEC
- c. $\alpha^{44}mja^{44}$ $t\phi^{h:44}$ yu^{21} $\alpha^{?21}$
 how.many reach far Q
 ‘How far is it?’ It is this far.’

For the verb ‘long (time)’ the pattern is slightly different, as follows:

- (4) a. $\alpha^{44}\mu u^{44}(\int_1^{44})$ $t\phi^{h:44}$ $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ $\mu u^{44}(\int_1^{44})$ $d\zeta o^{33}$ a^{33}
 how.long(t) reach exist Q this duration exist DEC
- b. $\alpha^{44}le^{44}$ $\mu u^{44}\int_1^{44}$ $d\zeta o^{33}$ $\alpha^{?21?}$ $t^h\emptyset^{33}$ k^hu^{55} $\mu u^{44}\int_1^{44}$ a^{33}
 which duration exist Q this extent long(time) DEC
- c. $\alpha^{44}mja^{44}$ $t\phi^{h:44}$ $\mu u^{44}\int_1^{44}$ $\alpha^{?21}$
 how.many reach long(time) Q
 ‘How long a time is it?’ It is this long a time.’

The different question and answer structures used productively with other verbs including negative extent verbs and verbs which do not have grammaticalized forms can be illustrated with ‘few’, ‘heavy’, and ‘light’ as follows, and is exactly parallel to the patterns already seen in (3c) and (4c).

- (5) $\alpha^{44}mja^{44}$ $t\epsilon^{h:44}$ ji^{55} $\alpha\gamma^{21}$ $t^h\emptyset^{33}$ k^hu^{55} ji^{55} α^{33}
 how.many reach few Q this extent few DEC
 ‘How few is it? It is this few.’
- (6) $\alpha^{44}mja^{44}$ $t\epsilon^{h:44}$ li^{21} $\alpha\gamma^{21}$ $t^h\emptyset^{33}$ k^hu^{55} li^{21} α^{33}
 how.many reach heavy Q this extent heavy DEC
 ‘How heavy is it? It is this heavy.’
- (7) $\alpha^{44}mja^{44}$ $t\epsilon^{h:44}$ lo^{33} $\alpha\gamma^{21}$ $t^h\emptyset^{33}$ k^hu^{55} lo^{33} α^{33}
 how.many reach light Q this extent light DEC
 ‘How light is it? It is this light.’

The following examples illustrate the use of the bound nominal forms in (8), the equative forms in (9) and the periphrastic alternatives as in (10) and (11), based on the verb /wu²¹/ and its various grammaticalized forms.

- (8) $\hbar i^{33}$ wu^{44} $d\zeta o^{21}$ $\alpha\gamma^{21}$ $\hbar i^{33}$ wu^{44} ma^{21} $d\zeta o^{33}$
 house size big Q house size not big
 ‘Is it the size of a house? It is not the size of a house.’
- (9) $\hbar i^{33}$ $t\emptyset^{33}wu^{55}\alpha\gamma^{21}$ ka^{35} $\alpha\gamma^{21}$ $\hbar i^{33}$ $t\emptyset^{33}wu^{55}\alpha\gamma^{21}$ ma^{21} ka^{33}
 house equal.size happen Q house equal.size not happen
 ‘Is it of equal size to a house? It is not of equal size to a house.’
- (10) $\hbar i^{33}$ $x\emptyset^{55}x\emptyset^{55}$ wu^{21} $\alpha\gamma^{21}$ $\hbar i^{33}$ $x\emptyset^{55}x\emptyset^{55}$ ma^{21} wu^{21}
 house like big Q house like not big
 ‘Is it as big as a house? It is not as big as a house.’
- (11) $\hbar i^{33}$ t^hi^{21} le^{35} wu^{21} $\alpha\gamma^{21}$ $\hbar i^{33}$ t^hi^{21} le^{35} ma^{21} wu^{21}
 house one same big Q house one same not big
 ‘Is it the same size as a house? It is not the same size as a house.’

These grammaticalized extensive forms are found in most Ngwi languages, though the exact inventory and structures differ from language to language and even between dialects of a language, as outlined in Bradley (1995). For example, Nisu grammaticalizes eight of the nine verbs also found in Lisu, but not ‘big’; it also grammaticalizes ‘heavy’; Nosu

grammaticalizes further, replacing seven negative extent verbs with grammaticalized positives including ‘heavy’, but lacks ‘far’ (having replaced the cognate with ‘road’ + ‘long (distance)’) and has two distinct forms for ‘wide’, in two and in three dimensions. Lahu grammaticalizes eight verbs including two forms for ‘wide’ but not ‘deep’, ‘thick’, or ‘heavy’. Some of these have additional structures not found in Lisu; for example, from the verb /vi⁵³/ ‘far’ Lahu has the question form /q^ha²¹fi³³/ ‘how far?’, the nominal form /ɔ²¹fi³³/ ‘distance’, and other forms including /tɕ^hi³³fi³³(fi³³)/ ‘this far’, /tɕ^hi³³fi³³fi³³ɛ²¹/ ‘exactly this far’, and diminutive /tɕ^hi³³fi³⁵ɛ²¹/ ‘only this near’; in addition there is periphrastic /q^ha²¹ma³³vi⁵³/ ‘how far?’, with the question form derived from /ma⁵³/ ‘many’ and parallel to (3c) above (Matisoff 1973[1982], Bradley 1995).

Another innovation restricted to Ngwi is the development of a set of dyadic kin group classifiers for groups of relatives (Bradley 2001). For example, Lisu has /pa⁵⁵lɔ²¹/ for a group including a father and his children, /ma⁵⁵lɔ²¹/ for a group of a mother and her children, and /pi⁵⁵li²¹/ for a group of a grandparent and his or her grandchildren, used as classifiers with numerals two and above, as in Lisu /ɲi²¹pi⁵⁵li²¹/ ‘a group of two people, one grandparent and one grandchild’. Such forms are found with different degrees of grammaticalization in one or more languages in most branches of Ngwi, but are absent from some Ngwi languages. Of course some other TB languages have dyadic nouns, but not dyadic forms which are solely classifiers.

One other vestige of TB morphology is the productive nominal prefix ***ʔa** which occurs throughout Burmic, either as an abstract verb nominalizer or as a formative prefix on a variety of nominal forms: kinship terms, body parts, as a dummy head for bound forms, and so on. The Burmese cognate [ʔə] has the verb nominalization and the kinship use; Ngwi forms show mainly the nominal uses, with a distinct form for verb nominalization derived from ***ʔaŋ¹** like Lahu /ɔ²¹/, Lisu /ji⁵⁵/, Phunoi /ʔaŋ⁵⁵/, and so on in some languages. In the Ngwi languages, cognates of the ***ʔa** prefix are most unusual in that the tone is determined by the tone of the following syllable, in different ways in different languages, one of the very few examples of tone sandhi seen in this group. The cognate of the ***ʔa** prefix is highly productive in some S Ngwi languages such as Akha and Hani, both as a verb nominalizer and as a prefix on bound nominals and kin terms, and is also very frequent with nominal heads in other languages such as Lisu. In other languages, the ***ʔaŋ¹** prefix has become the more productive one, as with Lahu /ʔɔ²¹/ with both pre-verb and pre-nominal uses (87 pages of entries in Matisoff 1988), while Lahu cognates of the ***ʔa** prefix occur in a substantially smaller number of pre-nominal forms (41 pages of entries in Matisoff 1988).

4. Syntax

Like the majority of TB subgroups, Burmic is consistently verb-final, and has nearly all the other characteristics usual in a verb-final language. However, unlike many other TB subgroups (van Driem 1993, LaPolla 2003, DeLancey 2010), there is also no reconstructible nominal agreement morphology of any kind on verbs. In Burmese, an innovative apparent number marking is possible but not obligatory using postverbal /tə̃⁵⁵/, written kra³, which is actually a marker of severality, mutuality, or collectivity of action (Okell & Allott 2001:16-17), not just a plural. This follows all grammaticalized serial verbs such as modals, but precedes the politeness marker, aspect and realis/irrealis markers. Burmic as a whole also has no reconstructible nominal case or other postpositions, though all Burmic languages now have such postpositions.

One example of a retained TB syntactic characteristic not reflecting verb-final structure is that the TB negative **ma* and negative imperative **ta* are consistently preverbal throughout Burmic, with forms reflecting the etyma **ma*² and **ta*² respectively. However, the negative imperative cognate has been lost in Burmese itself, another instance where this language with the longest written history within Burmic is nevertheless the most innovative.

All Burmic languages have numeral classifier systems; where a numeral is present, it must normally be followed by a classifier; they follow the head noun. However, the forms of the classifiers are often not solid cognate etyma and differ extensively between languages, even within Ngwi and more so between Burmish and Ngwi. Given these lexical differences and the syntactic differences in their behavior when combined with deictics discussed below, it appears that the development of classifier systems is a relatively recent areal phenomenon in Burmish, possibly diffused early from Chinese when the order there was N + Numeral + Classifier, as is also seen in Bai which has been heavily influenced by Chinese for two millennia.

As the data in the extremely valuable comments on this paper by Dai Qingxia indicate, it is possible to find some similarities of classifier forms between classifier systems among Burmic languages, but all of these are cognate nouns or other forms which have only relatively recently become classifiers. For example, the usual human classifier reflects cognates for an etymon ‘man’ **yok* which also becomes the usual human classifier in many Burmish languages including Burmese, as well as the Lisu form /zo⁴⁴/ found in some dialects; others have /wa²¹/). However, the human classifier in Lahu, which is closely related to Lisu within Central Ngwi, is /ya⁵³/, directly relatable to the Akha (Southern Ngwi) form /ya²¹/, and both derived from the noun ‘strength’, reconstructible as **ya*². In Nosu the usual human classifier differs according to the number and by dialect. Similarly, the classifier for ‘egg’ is an autotransformer in some

Burmic languages; however, in Burmese and a few other Burmic languages, it derives from a noun ***lum²** meaning ‘round thing’, also used to classify other round objects such as fruit in those languages. Conversely, the classifier for round things including fruit is /su²¹/ in Lisu, /ci¹¹/ in Lahu and /ʃi²¹/ in Akha, all from the noun ‘fruit’, Burmic ***si²** which of course has cognates in Burmese and elsewhere in Burmish but is not a classifier there. This is also used to classify eggs in Lahu and Akha. Such similarities of recently-developed grammatical forms suggest recent contact between Lahu and Akha, which must postdate the migration of the Akha westward into the Lahu area no more than 500 years ago. The classifier for eggs in most Burmish languages is /tʃ^ham/. The general default classifier also differs between languages, both in form and in the range of nouns with which it is used. As a general default classifier, Burmese uses /k^hu³/, derived from the noun meaning ‘piece’. Many Ngwi languages now use a cognate of the widespread Tibeto-Burman nominalizer suffix ***ma¹** as a general classifier; this includes Lisu and Nosu but not Akha which uses /hm²¹/. Note, however, that the use of the general classifier is much more widespread in Lisu than in Lahu, Nosu, or Akha; on the other hand, Nosu uses the general classifier to classify humans with the numerals one (and two in some dialects). Of other Southern Ngwi languages, Mpi uses /to³³/ as its general classifier, while Bisoid languages such as Bisu, Phunoi, and Laomian use /ma⁵⁵/ or /ma³³/; thus even within Southern Ngwi the classifiers do not correspond, suggesting that the addition of classifiers to the syntactic inventory of the Burmic languages is quite recent and substantially postdates the splitup of Burmic and even the splits within Burmish and Ngwi.

The behavior of deictics differs between Burmic languages, both in order (before or after the head noun), in constituency (whether some other nominalizing element may or must follow the deictic, as in Lisu or Lahu, or whether a following classifier is obligatory, as in Akha, and so on), and in how they combine with a numeral and a classifier if both a deictic and a numeral are present in the same NP. The Burmese deictic precedes the noun and does not then require nominalization; the numeral plus classifier follows the noun, as in (12). Burmese is diglossic; it is often the case that there are distinct literary and spoken forms for grammatical function words, with many literary forms also found in early inscriptions and thus presumably the earlier forms.

- (12) t^ho²²/ho²² lu²² ɲə jau?
 that (lit/sp) person two CLF.human
 ‘those two people’

In Akha, the deictic follows the noun and must then be followed by the appropriate classifier for the noun. In Lisu it follows the noun and must be followed by a nominalizer;

if a numeral and classifier are also present, the numeral follows the deictic and the classifier precedes the nominalizer, as in (13); a nominal case and/or topic marker may then follow the nominalizer.

- (13) $ld^{21}ts^h o^{33}$ go^{33} sa^{21} wa^{21} ma^{44}
 person that 3 CLF.human NOM
 ‘those three people (on the same level)’

In Black Lahu, the proximal deictic $/t\epsilon^h i^{33}/$ precedes or follows the head and may be alone or followed by the nominalizer/relative/genitive $/ve^{33}/$, with differences in meaning (Matisoff 1973[1982]:52-53, 110-116), but the other deictics precede the head and must be followed by $/ve^{33}/$. In Yellow Lahu, the proximal deictic $/t\epsilon^h i^{33}/$ behaves like other deictics: it precedes the head and is followed by relative/genitive $/ve^{33}/$ (Bradley 1979b). In all Ngwi languages, but not in Burmese, a deictic with its nominalizer or classifier may occur alone without a head noun; in spoken Burmese, a deictic without an overt head must be followed by the dummy noun $/ha^{22}/$ as in (14a); this is very often fused into one syllable as shown in (14b).

- (14) a. di^{22} ha^{22} b. da^{22}
 this NOM this.NOM
 ‘this’ ‘this’

For more discussion of the forms and syntax of deictics in Burmic, see Bradley (2003). It is shown there that various deictics which distinguish relative height and distance can be reconstructed for Ngwi, while Burmish lacks these. Some of these Ngwi deictics have extra-Burmic TB cognates, implying that the situation in Burmese is the result of loss of earlier deictic contrasts.

In Burmic languages, nominal case marking is optional and fairly infrequent. Its presence is determined pragmatically and may be used for disambiguation. Most of the nominal case markers, which follow the entire noun phrase and in some languages such as Lisu may then be followed by a topic marker, are not cognate across Burmic, and have transparent recent origins within subgroups of Burmic. For example, the literary Burmese object marker $/ʔa^{42}/$, normatively dative but also used for accusative, is derived from the homophonous noun meaning ‘strength’, while the spoken Burmese (and literary Burmese accusative) object marker $/ko^{22}/$ is derived from the homophonous noun ‘body’, though now spelled differently. The Central Ngwi object marker, Lisu $/t\epsilon^{55}/$ and Lahu $/t^h aʔ^{21}/$, is derived from a relative location noun meaning ‘(on) top’.

The nominal topic markers show some limited cross-language cognates within Ngwi, not always with the same function in every language, such as ***ʔna²** with cognates including the Lisu secondary topic marker /na²¹/, the Lahu embedded question marker /na¹¹/, and the Nisu topic marker /no⁵⁵/. It is often the case that a nominal topic marker is also used as a nonfinal clause marker of condition or cause, as in Lisu and Nisu, or for some other kind of embedding, as in Lahu.

Nominalizers and relativizers follow the verb in the embedded clause; where the head noun of the relative clause is present, it usually follows the embedded clause, though in Lisu a head noun may precede a light relative (which contains few constituents). There are some nominalizers/relativizers which have TB cognates outside Burmic, but which have quite different functions within Burmic or parts of it. For example, the widespread Ngwi locative nominalizer ***gu¹** ‘place to Verb’ exemplified by Lisu /gu³³/ and Lahu /ki²¹/ has extra-Burmic cognates which are nominal ergative markers (Newar, rGyalrong, etc.). There is no cognate of this form in Burmish; in Burmese, forms derived from ***ra¹** like written Burmese **ra**, spoken Burmese /ja²²/ are used as locative nominalizers; this form also has a variety of other nominalizing functions in Burmese. Throughout Burmic, an agentive nominalizer ***su¹**, an instrumental nominalizer ***du¹** and a general nominalizer ***ma³** are found, with widespread cognates elsewhere in TB. Unlike in some other parts of TB, cognates of the ‘male’ suffix ***ʔpa²** and the ‘female’ suffix ***ma³** (homophonous with ‘mother’ and with the general nominalizer) are not productively used as clausal nominalizers, though they can be used as verbal nominalizers (‘man/woman who Verbs’) in some Ngwi languages.

Cognates of ***su¹** are also in widespread use in various Burmic languages as remote third person pronouns; indeed, in Burmese the cognate has become the normal third person animate pronoun. Some languages have lost or restricted one or other of these; for example, Lahu has cognates for ***ma³** only as a bound nominal suffix, and for ***su¹** only as a remote third person pronoun, having generalized the form /ve³³/ from genitive into a relative in all dialects and into a nominalizer in Black Lahu (Bradley 1979b). Conversely, Lisu has extended ***ma³** into its general classifier, with a change in tone. In Burmese, the nominalizer ***su¹** also occurs first in many compounds with a verb, e.g. written **su k^hui²**, spoken /θək^ho⁴²/ su + ‘steal’ > ‘thief’; note that most of these have the first syllable reduced.

The clause-final markers of some Ngwi languages also show interesting cognate patterns, some of which suggest contact with Dai languages and borrowing across genetic linguistic boundaries. For example, there is a nonfinal clause (or nominal) simultaneous temporal marker ***ta²**, with cognates such as Lisu /the²¹/, Lahu /t^ha⁵³/, Hani /ta²¹/ and Nisu /t^ho²¹/. A similar form /t^haa⁵¹/ is also found in Southwestern Dai languages like Thai, which has conditional as well as temporal meaning. In Ngwi

languages, this marker is frequently seen grammaticalized into the question word ‘when?’, as in Lisu /ʔa⁵⁵ t^hε²¹/, Lahu /q^ha²¹t^ha⁹53/, Hani /xa⁵⁵ta²¹/, Nosu /k^hur²¹t^hur³³/, and so on.

5. Lexicon

One of the main characteristics distinguishing Burmic from the rest of TB, as in most instances of subgrouping, is innovative lexical material. Another is irregular phonological innovations in cognate TB material, such as *-k in etyma like 23 ‘tree’ ***sik**, 52 ‘heart’ ***snik**, and parallel examples which reflect *-ŋ in most other TB subgroups. This was already noted by Matisoff in a footnote in Benedict (1972:79). A third is consistent presence of certain two-syllable compounds, such as ‘ashamed’ ***s-rak^L daŋ¹**, as in Lisu /ʃa⁵⁵ do³³/, Lahu /ja²¹ to³³/, Akha /ʃa²¹ do⁵⁵/, Nosu /ʃo⁵⁵ to³³/, and so on. The examples in the Swadesh list below are 23, 37, 39 and 83.

It hardly needs to be stated that some of the Swadesh list items are less solid cognates; for example, 78 ‘sand’ is probably a Dai loan, 47 ‘knee’ in most Ngwi languages is just a compound of 46 ‘foot/leg’ and ***ʔtsik^L** ‘joint’ and also means ‘ankle’ in some languages, and 63 ‘swim’ is unlikely to be cognate among groups in whose original homeland rivers were far away down at the bottom of deep valleys and dangerous to swim in; thus a variety of innovative forms develop, such as Burmese, where ‘swim’ literally means ‘cross water’. Words such as 88 ‘green’ show innovative forms and semantic shifts: the Burmese cognate means ‘brown’, the Burmese form /sēi⁴²/ written cim² meaning ‘green’ is derived from ‘fresh’, and the Lisu form for ‘green’ is a compound meaning ‘heart fresh’. Other words like 71 ‘say’ have a variety of forms, so taking the most frequent form rather than a possible cognate tends to understate the degree of lexical similarity. I have added a cognate for ‘(rocky) cliff’ because there has been some confusion as to which Burmic form should be compared to TB forms meaning 77 ‘stone’.

Of course there are also numerous lexical innovations within the components of Burmic, notably Ngwi and subgroups of Ngwi. For example, most Ngwi languages which have birth-order systems (where each person has a specific name based on their order of birth) have a cognate for ***s-lik^L** ‘second-born child’, as in Lisu /a²¹ le³⁵/ (Bradley 2008b); a possible Burmese cognate is seen in the suffix for mother’s younger brother and sister in Burmese, /le²/, though the rhyme correspondence is irregular. There are also innovative two-syllable cognates such as 35, 38, and 46 within all or part of Ngwi but not Burmish. There are also some possible lexical innovations linking Central Ngwi and Northern Ngwi, as seen in 9, 41, 65, 97, and 99.

Semantic shifts and generalizations in cognate etyma are also found. For example, Burmish retains the TB etymon **dɲul* for ‘silver’ as **Cɲwe¹*, but Ngwi appears to have shifted the meaning of this etymon into its group autonym, and instead generalized the etymon 90 ‘white’ **plu¹* to mean ‘silver’ as well. We have just noted the semantic shift from ‘green’ to ‘brown’ of the Burmese cognate of **ʔno¹* and its replacement by ‘fresh’.

There are also consistent semantic shifts in certain lexical items, replacing TB cognate material found elsewhere in Burmic, in some subgroups. For example, 21 ‘dog’ usually shows a cognate for **kwe²*, but in Central Ngwi there is also a form **na²* derived from the verb ‘snatch’ as in Lisu /a⁵⁵ na²¹/, alongside the cognate. For ‘fire’, the usual cognate **C-mi²* (found in all but the Sal subgroup of TB) is widespread, but some Central Ngwi languages have a replacement form with the **ʔa* prefix and the causative form of the verb 84 ‘burn’ **s-duk^L*, for example Lisu /a⁵⁵ to⁵⁵/. Similarly, Burmese has replaced 89 ‘yellow’ but kept the cognate in the meaning ‘gold’.

The presence of most of these lexical innovations demonstrates membership of Burmic or the relevant part thereof; their absence is not absolutely criterial, as subsequent lexical innovations or losses may eliminate them. For example, Lahu completely lacks the birth order system so widespread in other Ngwi languages. It is also striking that there is no obvious etymon for 86 ‘mountain’ among the Burmic groups, despite the fact that they traditionally lived in or came from mountainous areas.

6. Conclusion

All Burmic languages share a number of characteristic innovations at all levels of linguistic structure, supporting their status as a separate major component of TB; there are also internal innovations within parts of Burmic. On the other hand, the Burmic languages also share a large proportion of cognate structures and forms with other major components of TB as well. There is some lexical evidence of a link with Qiangic, particularly with the Na languages, suggesting an Eastern TB subgroup. This also makes sense in the context of traditional history among the Ngwi groups, who all report that their ancestors came from the north. It remains to be determined whether Bai and Tujia also belong within Eastern TB.

The development of classifiers within various Burmic languages can be approximately dated. It probably started shortly before the advent of the Burmans in the plains of Burma in about 860 AD as part of the Nanzhao army conquering the Pyu, but after the separation within the Central Ngwi languages, and also after the separation within the Southern Ngwi languages. It seems to have involved various independent parallel developments, mainly from nouns into classifiers; the exact outcomes differ greatly even within closely-related subgroups.

Though Burmese inscriptions are the earliest securely-attested Burmic data, dating back to 1112 AD, there are also manuscript materials in various mostly Northern Ngwi languages (Nosu, Nasu, Nisu, Sani) reflecting a writing tradition which may possibly antedate this somewhat; for some details see Bradley (2009). However, the phonetic interpretation of these materials is somewhat opaque, as the scripts were originally logographic and are read with modern pronunciation. If the Bailang songs embedded in Han Dynasty materials reflect a Burmic language, that would be the earliest available record; otherwise, that honor belongs to the Man Shu, c.870 AD, which has two short Cuan wordlists (Luce 1961), one of which is of a Ngwi language.

Appendix: Swadesh List etyma and forms in Burmic languages

Underlined forms – noncognate (some showing cognacy within all or part of Ngwi)
Burmese forms given in transliteration, even tone (***Tone 1**, 22) unmarked

	Burmic (Bradley 1979a)	Burmese literary/spoken	C Ngwi Lisu (S)	S Ngwi Akha	N Ngwi Nosu
1. I	* <u>ŋa</u> ¹	ŋa	ŋwa ³³	ŋa ⁵⁵	ŋa ³³
2. you	* <u>naŋ</u> ¹	naŋ	nu ³³	no ⁵⁵	nu ³³
3. we (incl)	* <u>ni</u> ¹ / <u>do</u> ³	-dui ³	<u>ŋwa</u> ³³ nu ²¹	a ²¹ du ³³	ni ⁵⁵ ŋo ²¹
4. this	* <u>i</u> ¹ / <u>ti</u> ¹	i=di	t ^h ø ³³	hɣ ³³	ts ^h l ⁴⁴
5. that	* <u>to</u> ¹ / <u>go</u> ¹	t ^h o=ho	go ³³	tɣ ³³	<u>a</u> ³³ <u>dz</u> ⁴⁴
6. who?	* <u>ʔsu</u> ¹	baɣ su	<u>ʔa</u> ²¹ <u>ma</u> ³³	a ⁵⁵ ʃu ²¹	<u>k</u> ^h <u>a</u> ⁴⁴ <u>di</u> ³³
7. what?	* <u>ʔəje</u> ² / <u>ʃi</u> ²	ba	<u>ʔa</u> ⁵⁵ ʃ ²¹	a ²¹ dʒe ²¹	ɕi ⁴⁴
8. not	* <u>ma</u> ²	ma ³ [mə]	ma ²¹	ma ²¹	<u>ʔa</u> ²¹
9. all	(various)	a ² lum ²	<u>ʔa</u> ²¹ <u>dʒi</u> ²¹	dɔ ²¹ tɔ ^{ʔ33}	<u>dʒi</u> ³³ ku ⁴⁴
10. many	* <u>Cmya</u> ²	mya ²	mja ²¹	mja ²¹	ni ³³
11. one	* <u>ti</u> ² / <u>tik</u>	tac [tə]	t ^h i ²¹	t ^h i ²¹	ts ^h l ²¹
12. two	* <u>ni</u> ² / <u>nik</u>	hnac [ŋə]	ni ²¹	ni ²¹	ni ²¹
13. big	* <u>k-ri</u> ²	kri ²	wu ²¹	hu ²¹	ʒl ³³
14. long	* <u>s-riŋ</u> ¹	hɾaŋ	ʃŋ ⁴⁴	<u>m</u> ⁵⁵	ʂo ³³
15. small	* <u>n-yay</u> ¹	ŋay	<u>ʒo</u> ³³	ni ⁵⁵	<u>ɛ</u> ⁵⁵ <u>ts</u> ^{ʔ33}
16. woman	* <u>mi</u> ²	min ² <u>ma</u> ³	<u>za</u> ²¹ mu ²¹ <u>za</u> ²¹	<u>za</u> ²¹ mi ²¹ <u>za</u> ²¹	a ²¹ m ^ʃ ³³
17. man	* <u>g-yok</u>	yok <u>ky</u> ²	<u>za</u> ²¹ gu ²¹	xa ²¹ dze ⁵⁵ <u>za</u> ²¹	<u>za</u> ²¹ bu ³³ <u>zu</u> ³³
18. person	* <u>tsaŋ</u> ¹	lu	ts ^h o ³³	tsɔ ⁵⁵	ts ^h o ³³
19. fish	* <u>ŋa</u> ²	ŋa ²	ŋwa ⁵⁵	ŋa ²¹	h ^u ŋo ³³
20. bird	* <u>s-ŋyak</u>	hɟak	ŋa ³⁵	a ⁵⁵ dʒi ⁵⁵	h ^ɛ ts ^{ʔ33}
21. dog	* <u>kwe</u> ²	k ^h we ²	k ^h wu ²¹ / <u>ʔa</u> ⁵⁵ <u>na</u> ²¹	ku ²¹	ʒl ³³ ga ³³
22. louse	* <u>xan</u> ²	san ²	xu ⁴⁴	ʃɛ ⁵⁵	ʂu ³³
23. tree	* <u>sik</u> <u>baŋ</u> ¹	sac paŋ	su ³⁵ -	sɔ ²¹ - / a ⁵⁵ bɔ ⁵⁵	sɟi ³³ bo ³³
24. seed	* <u>yo</u> ² / <u>je</u> ³	ce ³	ʃŋ ⁵⁵	jø ²¹	jɛ ⁵⁵
25. leaf	* <u>Cpak</u>	rwak	pja ²¹	pa ^{ʔ21}	tc ^h i ³³
26. root	* <u>mje</u> ¹	mrac	tɕe ⁴⁴	<u>du</u> ²¹ tʃi ⁵⁵	ndʒi ²¹
27. (tree) bark	* <u>Cguk</u>	khok	ko ^{ʔ21} dʒi ³³	xo ^{ʔ33}	ndʒi ³³
28. skin	* <u>re</u> ¹ / <u>ndʒi</u> ¹	re	dʒi ³³	<u>ba</u> ^{ʔ33} <u>xo</u> ^{ʔ33}	<u>ndʒi</u> ⁴⁴ <u>su</u> ³³
29. flesh	* <u>ʃa</u> ²	sa ²	xwa ²¹	ʃa ²¹ <u>dʒi</u> ⁵⁵	ʂu ³³
30. blood	* <u>swe</u> ²	swe ²	ʃŋ ²¹	ʃi ²¹	sɟi ³³
31. bone	* <u>s-ro</u> ²	rui ²	wo ²¹ <u>to</u> ⁴⁴	ʃa ²¹ jø ²¹	ʃo ³³
32. grease/fat	* <u>tsi</u> ¹	c ^h i	ts ^h w ³³	tsu ⁵⁵	ts ^h l ³³
33. egg	* <u>u</u> ³	ʔu ³	fu ⁴⁴	u ^{ʔ33}	tc ^h i ²¹
34. horn	* <u>kro</u> ¹	k ^h rui	tʃ ^h l ⁴⁴	tʃø ⁵⁵	dʒl ³³
35. tail	* <u>daŋ</u> ¹ <u>ʔmri</u> ²	mri ²	mu ⁵⁵	dɔ ²¹ mi ²¹	m ^ʔ ²¹
36. feather	* <u>ʔmwe</u> ^{3/2}	mwe ²	my ⁴⁴	tʃa ^{ʔ21} hm ³³	ŋɛ ³³

	Burmic (Bradley 1979a)	Burmese literary/spoken	C Ngwi Lisu (S)	S Ngwi Akha	N Ngwi Nosu
37. (head)hair	* ?tsam¹ kriŋ¹	c ^h am paŋ	wu ⁵⁵ ts ^h ø ⁴⁴	tse ⁵⁵ kō ⁵⁵	ɔ ²¹ ne ³³
38. head	* u² ?du²	ʔu ² k ^h oŋ ²	wu ⁵⁵ dy ³³	u ²¹ du ²¹	i ³³ tci ³³
39. ear	* ?na² ?baŋ¹	na ²	na ⁵⁵ po ³³	na ²¹ bo ⁵⁵	ŋa ²¹ po ³³
40. eye	* Cmyak	myak	mja ⁴⁴	mja ^{ʔ33} nu ^{ʔ33}	ŋo ³³ dzi ²¹
41. nose	* sna¹	hna	na ⁴⁴ bo ⁴⁴	na ⁵⁵ me ⁵⁵	ŋa ²¹ bi ⁵⁵
42. mouth	* (C)me²/hnut^L	hnut/pv ² cyp	mɔ ²¹ nx ³⁵	xa ²¹ me ³³	k ^h a ²¹ p ^h i ⁵⁵
43. tooth	* swa²/?cway¹	cway/swa ²	sɿ ²¹ tɕ ^h i ⁴⁴	sv ²¹ /dʒi ⁵⁵	dzu ³³
44. tongue	* ?lya¹	hlya	lɔ ⁴⁴ tɕ ^h ø ⁴⁴	me ²¹ la ⁵⁵	ħa ³³ ne ³³
45. fingernail	* siŋ²	sap ²	sø ²¹	sɔ ²¹	sɿ ³³
46. foot	* kre¹ spak	k ^h re	tɕ ^h i ⁴⁴ p ^h ε ³⁵	a ²¹ ku ⁵⁵	ɕi ³³ p ^h o ⁵⁵
47. knee	* du²	du ²	tɕ ^h i ⁴⁴ tsɿ ⁵⁵	po ²¹ tsu ^{ʔ21}	ɕi ³³ tsɿ ⁵⁵ /ba ²¹ tsɿ ^{ʔ33}
48. hand	* lak	lak	le ^{ʔ21} p ^h ε ³⁵	a ²¹ la ^{ʔ21}	lo ⁵⁵
49. belly	* wam²	wam ²	ħe ^{ʔ21} ma ⁴⁴	u ²¹ ma ^{ʔ33}	ħi ⁵⁵
50. neck	* liŋ¹	lap	li ⁴⁴ be ³³	ko ²¹ lɔ ⁵⁵	ku ²¹ li ³³
51. breasts	* no³	nui ³	a ⁵⁵ t ^h i ³⁵	a ²¹ t ^ʃ ø ⁵⁵	a ⁴⁴ ne ³³
52. heart	* s-ni³/k	hnac lum ²	ɲi ³³ ma ³³	nu ³³ ma ³³	ħe ³³ ma ⁵⁵
53. liver	* sin²	asap	ʃɿ ²¹	ʃa ²¹ tsɔ ²¹	sɿ ²¹
54. drink	* ndaŋ¹	sok	do ³³	do ⁵⁵	ndo ³³
55. eat	* dza²	sa ²	dza ²¹	dza ²¹	dzu ³³
56. bite	* Ctsat/Ckuk	kuik	k ^h o ^{ʔ21}	ko ^{ʔ21} /tse ^{ʔ21}	ŋdzɿ ⁵⁵
57. see	* ?mraŋ¹	mraŋ	mo ³³	mo ⁵⁵	yur ²¹ mo ³³
58. hear	* gra²	kra ²	pa ³³ dʒa ²¹	ga ²¹	ŋa ³³
59. know	* si^{2/3}	si ³	sv ⁵⁵	si ²¹	du ³³ dzi ³³
60. sleep	* yip	ip	ji ^{ʔ21}	ju ^{ʔ21}	i ⁵⁵
61. die	* ʃe¹	se	ʃɿ ³³	ʃi ⁵⁵	sɿ ³³
62. kill	* Csat	sat	se ^{ʔ21}	se ^{ʔ21}	si ⁵⁵
63. swim	(various)	re ku ²	(sa ⁵⁵ /wo ⁴⁴)	i ⁵⁵ di ²¹ di ²¹	tɕi ³³
64. fly	* b-yam¹	pyam	bjø ³³	zɔ ³³	dzi ³³
65. walk	(various)	ħlyok	ɕø ²¹	tɕɔ ³³	ʃu ³³
66. come	* la¹	la	la ³³	la ⁵⁵	la ³³
67. lie (down)	* ndo²	lay ²	do ²¹	xo ²¹ da ³³	dzi ³³ ndo ³³
68. sit	* (C)ni¹	ne/t ^h uiŋ	ɲi ⁴⁴	nu ⁵⁵	ɲi ³³
69. stand	* ?ryap	rap	ħe ^{ʔ21}	jo ^{ʔ21}	ħi ⁵⁵
70. give	* be²	pe ²	gu ²¹	bi ^{ʔ21}	bɿ ²¹
71. say	(various)	pyaw ²	be ⁴⁴	ε ⁵⁵	ħi ²¹
72. sun	* ?ne¹	ne	mi ²¹ mi ³³ /bu ³³	nɔ ³ ma ³³	ħo ³³ bu ³³
73. moon	* bala³	la ³	ħa ³³ ba ³³	ba ³³ la ³³	jo ²¹ bo ²¹
74. star	* Cgray¹	kray	ku ⁴⁴ za ²¹	a ²¹ gu ⁵⁵	tɕi ³³
75. water	* re¹	re	ji ³³	i ⁵⁵ t ^ʃ u ^{ʔ21}	ji ³³
76. rain	* rywa¹	rwa	ħa ³³	je ⁵⁵	ħa ³³
77. stone	* k-lok	kyok	lo ⁴⁴ di ⁴⁴	xa ²¹ lo ³³	lu ^{ʔ33}
cliff	* Crak	kyok t ^h v ³ ram	ya ⁵⁵	lo ³³ gu ⁵⁵	va ⁵⁵

	Burmic (Bradley 1979a)	Burmese literary/spoken	C Ngwi Lisu (S)	S Ngwi Akha	N Ngwi Nosu
78. sand	*say ²	say ²	<u>xu</u> ²¹ tci ⁴⁴	xa ⁵⁵ ʃuʔ ²¹	<u>mu</u> ⁴⁴ ʃu ³³ /sa ³³
79. earth	*ʔmre ¹	mre	mi ⁴⁴	mi ⁵⁵	mu ⁴⁴
80. cloud	*Cdim ¹	tim	<u>my</u> ²¹ ti ⁴⁴	<u>m</u> ²¹ dm ⁵⁵	ti ³³
81. smoke	*ko ²	<u>mi</u> ² k ^h ui ²	<u>mu</u> ²¹ k ^h u ²¹	<u>m</u> ²¹ xø ²¹	<u>mu</u> ³³ ku ³³
82. fire	*Cmi ²	mi ²	<u>ɑ</u> ⁵⁵ tø ⁵⁵	mi ²¹ dza ³³	mu ⁵⁵
83. ash	*Ckap Cla ¹	pra	k ^h u ²¹ ħa ³³	xa ²¹ le ⁵⁵	k ^h u ²¹ ja ³³
84. burn	*duk	tok	do ²¹	do ²¹	du ⁵⁵
85. path	*lam ² /ʔga ¹	lam ²	dʒa ⁴⁴ gu ⁴⁴	ga ⁵⁵ ma ³³	ga ²¹ mo ²¹
86. mountain	*kaŋ ¹	toŋ	<u>wa</u> ²¹ /tce ⁴⁴ /dzi ²¹	<u>g</u> ²¹ dʒo ²¹	<u>bo</u> ³³
87. red	*ʔni ¹	ni	ni ⁴⁴	ne ⁵⁵	ni ³³
88. green	*ʔno ¹	jui/cim ²	<u>ni</u> ³⁵ t ^h i ²¹	no ⁵⁵	<u>lo</u> ²¹
89. yellow	*s-rwe ¹	<u>wa</u>	ʃi ⁴⁴	ʃu ⁵⁵	ʃu ³³
gold		hrwe	ʃi ⁴⁴	ʃu ⁵⁵	ʃu ³³
90. white	*plu ¹	p ^h ru	p ^h u ³³	pju ⁵⁵	tɕ ^h u ³³
91. black	*Cnak	nak/ <u>ma</u> n ³	ne ⁴⁴	na ²¹ ³³	no ³³
92. night	*ʔrak	rak/ <u>pa</u> ³	ħya ²¹	<u>u</u> ²¹ t ^h i ²¹	<u>s</u> ³³
93. hot	*tʃa ¹	<u>pu</u>	ts ^h a ³³	tʃa ⁵⁵	ts ^h a ³³
94. cold	*C/ŋgrak	e ²	dʒa ⁴⁴	ga ²¹ ³³	ŋgo ³³
95. full	*mbliŋ ³	praŋ ³	bi ⁴⁴	bjɔ ³³	dzi ²¹
96. new	*Cʃik	sac	ʃu ²¹	ʃu ²¹	ʃu ⁵⁵
97. good	*ʔmin ² etc.	koŋ ²	<u>x</u> ⁴⁴ / <u>d</u> zi ³³	mu ²¹	<u>xu</u> ³³
98. round	*wan ² /lo ²	wan ²	lu ⁵⁵	zɔ ³³	vo ³³ lu ³³
99. dry	*swe ² /gwe ³	swe ³	<u>f</u> ⁴⁴	gu ³³	<u>f</u> ³³
100. name	*ʔmyiq ¹	map	mjo ⁴⁴	mjɔ ⁵⁵	mjo ³³

In cases where two Burmese forms are given above, the one before the slash is the cognate but now has a restricted or different meaning, while the one after the slash is the contemporary word with the exact current meaning. Literary versus spoken Burmese forms are separated by an = sign. In many cases, the additional underlined syllables in polysyllabic forms are clearly analyzable and often have cognates elsewhere; for example, the first syllable in the words for 81 ‘smoke’ is of course 82 ‘fire’, the second Burmese form for 42 ‘mouth’ is literally ‘cheek-edge’, in 52 ‘heart’ the second syllable in Burmese means ‘round thing’, and so on. Where relevant, the modern Burmese pronunciation (as opposed to a transliteration of the spelling) is given in phonetic brackets.

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從構詞與句法的特徵 論彝緬語之為藏緬語族中的獨立語支

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本文針對用於藏緬語族緬彝語的各種名稱之歷史及其構成元素進行概述。簡要說明一些致使緬彝語與藏緬語族其他語支相區別的語音演變及其內部的進一步發展。本文討論了緬彝語詞法的重構，該語支的詞法重構相對藏緬語族大部分其他語支而言，規模要小得多。此外，並提出緬彝語的主要句法特點，即典型的動詞後置，以及各種語法標記的重構形式。本文亦提供了一些詞彙差異的實例，以證明緬彝語是藏緬語族的一個獨立語支，以及緬彝語內可再分為次語支。本文之附錄收錄了斯瓦迪士百詞表的緬彝語詞彙，並列出重構的同源詞以及源於緬甸語和源於彝語支語的三個主要次語支中具有代表性的語言的詞彙。本文提及之例子編號係參照附錄中的詞彙編號。

關鍵詞：藏緬語，緬語支，彝語支，語音，構詞，句法，基本詞彙