

Grammaticalisation of extent in Mran-Ni¹

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INTRODUCTION

There is a small subclass of verbs of dimensional extent within the stative verbs of various Mran-Ni (MN, generally known as Burmese-Lolo or Lolo-Burmese)² languages. They comprise a small number of positive and negative pairs of verbs such as FAR and NEAR, LONG and SHORT, etc. In a number of cases the positive extensive is a MN or southeastern Tibeto-Burman (TB) lexical innovation, while in other cases both positive and negative extensives are derived from well-established TB etyma.

The extensives show various types of grammaticalisation in different branches of MN. Within Ni (N, generally known as Loloish), there are interrogative, adverbial and sometimes nominal forms derived from the positive extensives; these show tonal and in a few cases initial consonant differences from the verbal source forms. Ten pairs of verbs are involved; a number of languages including Nosu, Nisu, Lahu, Lisu and Lipo have nine or eight grammaticalised forms, while other languages such as Pula, Akha, Nasu and Sami have fewer.

In part of Northern Ni (NN, i.e. Northern Loloish) there is a further grammaticalisation in which most of the negative extensives are partly or completely replaced by forms derived from the positive ones. These developments provide further support for the subgrouping of MN and N previously suggested in Bradley (1979b). Other branches of MN also show grammaticalisation in this area of the lexicon; but independently and in different ways. For example, the Gong negative extensives, some of which

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² Mran is the traditional name of the speakers of Burmese, now recognised in the new English name of the Union of Myanmar. Ni is the traditional name for many of the Northern Loloish groups including Nosu, Nasu, Nisu and Sani. It can be related to the traditional name of various groups in Li, such as the Lisu and Lipo; see Bradley (forthcoming). In this paper I am replacing the exonyms Burmese (with Mran) and Loloish (with Ni), as these are non-pejorative autonyms. I refer to modern Myanmar and its antecedents as distinct from the other Mran (generally known as Burmish) languages.

are also lexically innovative, have both phonological and syntactic characteristics which distinguish them from other verbs. In modern Myanmar, different stative verbs are grammaticalised into interrogative forms.

The differences also shed light on the prefixation processes of MN, providing evidence for a ***ka**¹ question prefix in addition to the more widely attested pronominal and nominalising ***a** prefix in question forms. Interestingly, the distribution of the prefix does not follow the usual subgrouping of L, with forms reflecting ***ka**¹ found in NN Nosu, Nasu and Pula but not Nisu, Sami or Southeastern Yi; in Central Ni (CN) Lipo and Lahu but not Lisu; and in Southern Ni (SN) Hani and Mpi but not in Akha.

The lexicon of extensives also provides further evidence to disconfirm various proposals that other languages such as Rawang/Nung, Naxi (Nakhi), Bai, Qiangic, Tujia or Jinghpaw should be grouped within the N or MN groups.

EXTENSIVES

Stative verbs of dimensional extent, or the corresponding adjectives in languages which have such a form class, form a semantic field of polar opposites which have various interesting properties in a variety of languages.

One feature is that the positive member, the one which expresses the greater dimensional extent, is the unmarked member of the pair; so one would normally ask 'How long is it?' or 'Is it long?' rather than 'How short is it?' or 'Is it short?', unless context forces the latter alternative. Another is that more than one positive extensive may have the same negative extensive as its polar opposite; so 'tall' and 'long' both correspond to the negative extensive 'short'. Another semantic property is that certain types of extent tend to be combined in one lexical pair; so for example extent in distance (length) and in time (duration) are both expressed by the English 'long'/'short'; this particular combination of meanings is rather widespread, and others also occur. A further interesting property is that the negative extensive may lack a specific lexical form, and may simply be expressed by a negative of the positive form. For example, in French **profond** in the positive extensive meaning of 'deep (of water)' lacks a monomorphemic negative extensive lexical item corresponding to 'shallow'; rather, one must say **peu profond**.

A morphological property of extensives is that the positive form is the more usual stem for derived nominal and other forms; in English we have the lexicalised 'wide' > 'width', 'high' > 'height', 'deep' > 'depth', 'long' > 'length' and so on, showing vowel alternations reflecting their long-standing status; but not *'narrowth', *'lowth', *'shallowth', *'shorth', etc. The negative extensives combine only with more productive and less lexicalised

suffixes such as '-ness', which conversely may seem a bit clumsy with the positives: 'wideness' is less good than 'narrowness'.

The extensives in MN show all of these properties: among these languages the positives are less marked and more stable, some negatives correspond to more than one positive, there are some lexical gaps among the negatives in some languages, length and duration are expressed with the same forms in a number of languages, and the positives enter into a variety of grammaticalisation processes by which they are phonologically modified in a variety of derived forms, including nominals, interrogatives, adverbials and even negative extensives.

These grammaticalisation processes are the main topic of this paper. The MN languages have lost nearly all of the TB morphology which persists in related languages where phonological attrition processes are less extreme; but they have also begun to redevelop some morphological oppositions. For examples in the pronominal systems, see Bradley (1993). With the extensives, these are mainly reflected in tonal and initial consonant effects in innovative forms derived from the positive extensives. This occurs in new compounds formed by existing and innovative affixation processes.

EXTENSIVES IN NORTHERN NI

The most extensive grammaticalisation of extensives occurs in NN, especially the dialects of Nosu spoken in Sichuan. The appendix presents data on the four principal types of Nosu, including 'standard' Shengza. For details on the distribution and characteristics of these varieties, see Bradley (1986).

One part of this grammaticalisation involves the pervasive sandhi processes in Nosu, by which a [44] tone comes into existence and words with [33] tone are redistributed among [33], [44] and [21] tones in certain environments. The trigger for this sandhi development is a series of tone mergers in Nosu, which would have resulted in more than three quarters of the syllables having [33] tone; for further discussion, see Bradley (1991). The exact details of the sandhi differ between dialects. All have a [33] > [21] process, but the environments and frequencies differ. Shengza shows a high incidence of [33] > [44], but southern Sondi and Adur have generalised this process more fully, while northern Yinuo has little of this sandhi but instead an alternative [33] > [22] sandhi.

Certain extensive forms have been paradigmatically reorganised into positive, negative, interrogative and reduplicated augmentative sets. The positive form occurs as a verb alone, or with a prefix /ʔa/. In most cases, the MN negative extensive form has been completely replaced by a form which has a prefix /ʔi/ plus the positive extensive.³ The question form uses a reflex

³ Matisoff (personal communication) suggests an origin from the negative extensive LITTLE, as seen in Lahu.

of the prefix ***ka**¹ plus the positive extensive; and the reduplicated forms follow the pattern shown in Table 1.

Table 1: Nosu extensive paradigms

(V = Verb stem)

	Shengza	Yinuo	Sondi/Adur
Positive	/ʔa ⁴⁴ / + V [33] (6)	/ʔa ³³ / + V [22] (4)	/ʔa ⁴⁴ / + V [33]
	/ʔa ³³ / + V [33] (2)	/a ³³ / + V [33] (4)	
	/ʔa ³³ / + V [44] (1)		
Negative	/ʔi ⁴⁴ / + V [33]	/ʔi ²² / + V [33]	/ʔi ⁴⁴ / + V [33]
Question	/kha ²¹ / + V [44]	/kha ³³ / + V [21]	/ha ²¹ / + V [44]
Augment 1	/tshi ²¹ / + V [44] + V [33]	/khu ⁵⁵ / + V [33] + V [22]	Sondi /tshi ²¹ / + V [44] + V [21]
		/tshi ⁵⁵ / + V [33] + V [22]	Adur /tshi ²¹ / + V [44] + V [44]
Augment 2	/tshi ²¹ / + V [44] + V [21]		

One pair, FAR/NEAR, which are extensives in most N languages, does not pattern this way in Nosu; instead FAR contains the word for 'path' plus LONG (distance), and the word for NEAR has 'path' plus NEAR. In the case of BIG/LITTLE, the negative extensive form has persisted, and is not replaced by a prefixed form of the positive. Forms reflecting the etyma for DEEP/SALLOW survive as such, but with the positive and negative prefixes added to them. HEAVY/LIGHT is another interesting case; one finds the original negative extensive with another prefix in Shengza and Sondi, but this same negative extensive form, like SHALLOW, occurs with /ʔi/ in Yinuo and Adur, with an alternative form in Yinuo, Sondi and Adur using the /ʔi/ prefix plus positive extensive. There are a couple of other stative verbs of dimension in Nosu which also sometimes take the /ʔa/ and /ʔi/ prefixes, but without the full paradigm shown in Table 1. Table 1 also shows that the tone patterns of the derived forms are completely regular; while there is still some lexical tone in the positive extensive forms.

As tabulated in the Appendix, the prefixed question form occurs with a total of nine extensives in Nosu and the negative prefix /ʔi/ occurs with eight or nine. One of the two forms for WIDE is missing in Yinuo, and there is a doublet for MANY in Adur, one (with /o/) reflecting the regular Adur/Sondi rhyme development and the other (with /i/) perhaps due to dialect mixture from adjacent Shengza.

This grammaticalisation of positive extensives to replace the negative extensives does not occur in other NN languages. Table 2 shows the pattern in Shiping Nisu which has eight positive extensives with alternative question/augmentative forms. The form /dʒa²¹/ 'have/exist' follows the

grammaticalised extensive; the other alternative is periphrastic, combining HOW MANY? and the regular verb form.

Table 2: Nisu extensive forms

	Extensive	Question	Periphrastic question
FAR	vi ³³	ʔa ²¹ fi ²¹ dʒa ²¹	ʔa ²¹ no ²¹ vi ³³
HIGH	mo ⁵⁵	ʔa ²¹ mo ²¹ dʒa ²¹	ʔa ²¹ no ²¹ mo ⁵⁵
BIG	ɣə ³³		ʔa ²¹ no ²¹ ɣə ³³
LONG (d)	ʂə ⁵⁵	ʔa ²¹ ʂə ²¹ dʒa ²¹	ʔa ²¹ no ²¹ ʂə ⁵⁵
LONG (t)	ma ⁵⁵ gu ²¹ ʂə ⁵⁵	ʔa ²¹ ʂə ²¹ dʒa ²¹	ʔa ²¹ no ²¹ ʂə ⁵⁵
MANY	no ³³	ʔa ²¹ no ²¹ dʒa ²¹	
WIDE	fi ⁵⁵	ʔa ²¹ fi ²¹ dʒa ²¹	ʔa ²¹ no ²¹ fi ⁵⁵
DEEP	ni ²¹	ʔa ²¹ ni ²¹ dʒa ²¹	ʔa ²¹ no ²¹ ni ²¹
HEAVY	li ³³	ʔa ²¹ li ²¹ dʒa ²¹	ʔa ²¹ no ²¹ li ³³
THICK	thu ²¹	ʔa ²¹ thu ²¹ dʒa ²¹	ʔa ²¹ no ²¹ thu ²¹

In most cases the grammaticalised Nisu form is more frequent, except for HOW WIDE? where the grammaticalisation makes the form identical with HOW FAR?; and for HOW DEEP? and HOW HIGH? where the periphrastic form is preferred (lit. HOW MUCH DEEP? HOW MUCH FAR?), but the grammaticalised form also occurs. With MANY the periphrastic form is not used, and with BIG there is no grammaticalised form. The usual tone for the grammaticalised form is /21/, and in five of seven cases where the base verb form is unconstricted, the grammaticalised form is constricted. Note also the initial voicing alternation in the form for HOW FAR?, which is also seen in other languages including Pula and Lahu.

Pula shows a similar pattern, but with only four fully grammaticalised extensives: /kha²¹no³³/ HOW MANY? /kha²¹fur³³/ HOW FAR? /kha²¹mo³³/ HOW HIGH? and /kha²¹xɛ³³/ HOW LONG?. The grammaticalised forms all show a change to /33/ tone, and again HOW FAR? shows /f/ instead of /v/. HIGH also occurs in a periphrastic form /kha²¹na³³mo³³/ with /kha²¹na³³/ HOW MANY? plus normal verb form, a combination which also occurs in /kha²¹na³³ji²¹/ HOW HEAVY? and /kha²¹na³³hm⁵⁵/ HOW BIG?

Nasu /kho²¹=²¹/ HOW MANY? shows a tonal alternation compared to /=³³/ MANY, as does Sami /ʔa²¹no³³/ HOW MANY? as opposed to /no²¹/ MANY. In these languages periphrastic extensive questions are formed using the HOW MANY? form plus the relevant extensive verb; for example, Sami /ʔa²¹no³³ du³³ vi³³/ HOW FAR?

Lexical innovations include LOW in Nisu, LITTLE in some kinds of Eastern Yi, and scattered forms for FEW. In various languages, especially for WIDE/NARROW, Chinese loans prevail. For SHALLOW a negation of DEEP is seen in most varieties of Nisu.

EXTENTIVES IN CENTRAL NI

Lahu is one of the Central Ni (CN) languages, and has been extensively described by Matisoff (1973, 1988) and its dialects studied in Bradley (1979a). The major dialect division into Black and Yellow Lahu is reflected by regular differences in initials, rhymes and tones of the extentives. There are also some minor dialect differences in their grammaticalisation. Different speakers have different patterns for the grammaticalisation of some of these extentives, notably for HIGH and for WIDE. In general the question/adverbial extensive form has the /33/ tone, and there is a diminutive extensive with a sandhi /35/ tone.

Lahu, like Nosu and some other N languages, has two semantically distinct forms for WIDE. One, /fe³³/, refers to width in two dimensions or of lesser extent; the other, /qe²¹/ refers to width in three dimensions or of greater extent. However in Lahu the meaning difference is not known to all speakers, and some speakers from Myanmar and Thailand do not use or even recognise the /fe³³/ form. Jin (1992) indicates that this form is also of relatively restricted distribution in varieties of Lahu spoken in China. A third form /qo¹¹²/, derived from the nominal form 'hole/opening', is used for two-dimensional wideness of doors or other openings and is also more widespread than /fe³³/ . For some speakers the /qe²¹/ form operates with a full extensive paradigm including /qe³³/ and /qe³⁵/, but for others it can only be /qe²¹/ and does not have an interrogative, nominal or reduplicated form. For a smaller number of speakers again, the /fe³³/ form also grammaticalises to /fe³⁵/.

Other dialect differences seen in extentives which are less regular include the form of the question prefix: Black Lahu /qha²¹/, Yellow Lahu /khwe⁵³/; the rhyme of LONG, Black Lahu /i/ and Yellow Lahu /ε/; and for some varieties of Yellow Lahu also the rhyme of MANY, where Black and some Yellow Lahu dialects have /a/ but other Yellow Lahu have /ε/, which reflects MN **mya*² more regularly.

Matisoff originally coined the term 'extensive' to refer to this class of forms, and discusses their syntax in considerable detail (Matisoff 1973: 117-129, 282-283). The basic forms are /ma⁵³/ MANY, /i¹¹²/ BIG, /vi⁵³/ FAR and /yi²¹/ [zɿ] LONG; the derived forms are /ma³³/ MANY, /hi³³/ BIG, /ʃi³³/ [sɿ] LONG, /fi³³/ FAR and arguably /mu³³/ HIGH and /mo³³/ LONG (time), though as the basic form of these latter two extentives already have [33] tone there is no tonal alternation, and there is an alternative periphrastic form as noted below. To this list can be added /qe²¹/ > /qe³³/ WIDE for some speakers and

/fe³³/ WIDE for somewhat fewer. Initial differences reflecting the prefixation can be seen in BIG, LONG and FAR. They occur in question forms, and also with partial ABB or full ABAB reduplication, e.g. /qha²¹ma³³ma³³/ or /qha²¹ma³³qha²¹ma³³/, with "approximative, augmentative but not interrogative, augmentative and interrogative ... or simply interrogative" meaning (Matisoff 1973: 124). In addition, they also occur as bound head nominal forms.

For the three extensives whose main verb form already has the /33/ tone, /mu³³/ HIGH, /mɔ³³/ LONG (time), and /fe³³/ WIDE, a periphrastic form with HOW MANY? plus verb occurs, in addition to the grammaticalised form shown in the Appendix below. That is, /qha²¹ma³³mu³³/, /qha²¹ma³³mɔ³³/ and /qha²¹ma³³fe³³/ occur as well as /qha²¹mu³³/, /qha²¹mɔ³³/ and /qha²¹fe³³/; note the parallel to the Nisu alternative forms.

The adverbialiser /qha³³/ with [33] tone plus a nonderived extensive form (or other stative verb) has a superlative or equative meaning: /qha³³yi³³/ 'extremely long'/'fully as long as' (Matisoff 1973: 281); again, these may be reduplicated partially (ABB) or fully (ABAB). The ABB reduplication can have an intensifying, a weakening or an indefinitivising effect; the ABAB reduplication, which is less frequent, always has an intensifying effect.

The same adverbialiser /qha³³/ also occurs with the derived extensive forms, which may be further followed by the adverbial postposition /ʔe²¹/, but only with the equative meaning; this can also be partially reduplicated (ABB), as in /qha³³ʔi³³ʔi³³ʔe²¹/ '(just) exactly this long'. In this meaning the derived extensive form retains its [33] tone.

The Lahu demonstrative /chi³³/ 'this' can be followed by various stative verbs, singly or reduplicated (ABB), without a negative meaning. Some are extensives, as in /chi³³fe³³/ or /chi³³fe³³fe³³/ 'this wide'; this construction also occurs with the derived extensives with much the same meaning: /chi³³fi³³/ or /chi³³fi³³fi³³/ 'this far'. It is thus parallel to the /qha³³/ plus stative verb construction.

However, in Black Lahu when a derived extensive combines with a demonstrative /chi³³/ 'this' in what Matisoff (1973: 129-130) calls the diminutive extensives, the derived extensive form must be followed by the /ʔe²¹/, and acquires [35] tone by sandhi before that postposition. In addition to the five forms cited by Matisoff (/chi³³ma³⁵ʔe²¹/ '(only) this few', /chi³³fi³⁵ʔe²¹/ '(only) this near', /chi³³hi³⁵ʔe²¹/ '(only) this small', /chi³³ʔi³⁵ʔe²¹/ '(only) this short (distance)' and /chi³³mu³⁵ʔe²¹/ '(only) this short (height)') some speakers also use /chi³³qe³⁵ʔe²¹/ and /chi³³fe³⁵ʔe²¹/ '(only) this narrow' and /chi³³mɔ³⁵ʔe²¹/ '(only) this short (time)'. The sandhi process appears to be triggered by the *ʔ which originally conditioned the development of *Tone 3 in the derived extensive forms at the beginning of the syllable and the /ʔ/ initial of the postposition; thus it is parallel to the major source of the Lahu [35] tone as described in Matisoff (1970), i.e. proto-syllables with glottal

stop on both sides of the vowel. The same phenomenon is found when the /ʔe²¹/ suffix is added after the basic colour terms with [33] tone; /ji³³/ or /ji³⁵ʔe²¹/ 'red' among others. The corresponding [13] tone does not occur through sandhi in Yellow Lahu, where the diminutive extensives are /chi³³khe³³/ 'this - like' plus the extensive form under tone [33].

Semantically the diminutive extensives of Black Lahu are parallel to the negative extensives of Nosu: they are derived from the positive extensive stems but have the opposite meaning; and they also show tonal differences as a result of language-internal sandhi processes. So again, a new paradigmatic opposition is being created. Overall, then, Lahu has grammaticalised eight positive extensive forms into various constructions, in which they show up to three distinct tonal forms and in three cases initial consonant alternations as well.

Among other CN languages, the only ones well-enough described to reveal much about the grammaticalisation of extensives are Lisu and Lipo. These two languages are virtually mutually intelligible; indeed Metcalf (1938) prefers to describe Lipo as Eastern Lisu. Lipo forms a dialect chain with Lolopho and is classified in China as the Central dialect of Yi; but it and 'Western Yi' are quite distinct from the rest of Yi and share many lexical and other characteristics with Lisu and to a lesser extent the other CN languages such as Lahu and Jinuo.

Lisu and Lipo both show extensive grammaticalisation of extensives into question forms; in Lisu this is with a reflex of the *a prefix and occurs with eight extensive verbs not including DEEP or HEAVY (which also do not grammaticalise in Lahu), while in Lipo a reflex of the *ka¹ prefix is present in eight grammaticalised forms, all except BIG. In both cases there is a similar tonal alternation, with a neutralisation in the question forms of [21] to [33] tone for extensives with a basic [21] tone. Lipo even has a question form containing a Chinese loan for HOW WIDE?, and does not always neutralise its [55] tone to [33] in interrogative forms for less core extensives, as shown by the form /kɰ²¹ne⁵⁵/ HOW DEEP? and /kɰ²¹thu⁵⁵/ HOW THICK? Initial consonant differences do not occur in the Lisu and Lipo grammaticalised extensives, unlike Lahu. Lisu does, however, show some variation in the tone of the derived form: FAR, LONG (time), WIDE may acquire [44] tone instead of [33] tone. There is some internal variation elsewhere in Lisu between these two phonetically similar tones.

In summary, of the three CN languages for which substantial information is available, all grammaticalise up to eight extensive verbs including the "core" FAR, HIGH, LONG, MANY, WIDE; conversely there are some non-grammaticalised forms among the "less core" extensives in Lahu (DEEP, HEAVY, THICK), Lisu (DEEP, HEAVY) and Lipo (BIG).

EXTENTIVES IN SOUTHERN NI

Southern Ni (SN) shows very extensive lexical innovations; but in general at least one language retains a cognate for each MN extensive etymon. There are the usual negative gaps, filled by negated forms of the positive (Bisu FEW, SHALLOW; Akha SHALLOW). Quite a range of loans, especially from Chinese, can be observed; especially in Haoni, Piyo and Khatu. Some of these replace "rather core" extensives, such as HIGH in Akhoid languages; others include FEW, HEAVY, THICK, WIDE and NARROW. As in Nosu, FAR is replaced by 'path' plus LONG in some languages such as Akha. Innovative Akhoid etyma include LIGHT **pya*¹ and LONG **mon*¹, which as noted also replaces FAR in Akha and is an alternative for it in most other Akhoid languages. The latter could perhaps be related to the Lahu/Lisu etymon for LONG (time); the semantic shift in Akha is reasonable, though the tonal correspondence is not regular.

Looking at how reflexes of the MN positive and negative extensives are retained, Akha has replaced FAR, NEAR, HIGH, LOW, LONG, NARROW, HEAVY and LIGHT; a very high proportion. Most other languages are somewhat more conservative.

Some of these languages share a stative verb prefix, reflected by the Akha /*jɔ*³³/ and Bisu /*ʔaŋ*³³/ prefixes, which may occur on most stative verb forms, not just extensives. The prefix also occurs in CN, as reflected in Lahu /*ʔɔ*²¹/ which is a nominal prefix. Question forms show both the TB **a* prefix, as in Akha, and the *N prefix **ka*¹, seen in Mpi among other places. Grammaticalised extensive verb forms occur in Akha question words; there are three such items, HOW FAR/HOW LONG?, HOW BIG?, and HOW MANY?. Two of these show *Tone 3 reflexes, [33], while the third has a curious *High Stopped reflex, [33̥]; but there are a few other parallel instances of sporadic development of creaky tone in Akha, so this is not as irregular as it appears.

In general, the SN languages reflect the least grammaticalisation of extensives among the N languages; but the same prefixed interrogative forms and tonal alterations are seen, at least in Akha.

EXTENTIVES IN GONG

The Gong extensive forms are given in the Appendix. There are six core extensives, not including WIDE/NARROW, HEAVY/LIGHT and THICK/THIN. Most of the six negative extensives share several unique phonological characteristics. Three of them have two syllables, and one further form has an alternative form with two syllables. Four of them end in a glottal stop. In three of four instances with two syllables, the vowels of the two syllables are the same; in one case the form is completely reduplicated. There are a very few other disyllabic stative verbs in Gong, but most neither have the same vowel in both syllables nor end in a glottal stop. All of the

positive extensives are cognates for MN and/or TB etyma; but only a few of the negative extensives are. As the Appendix shows, there are the usual sandhi tones for the negatives and reduplicated diminutives of those extensives that have them.⁴

Syntactically, the six Gong negative extensives are also unique. Firstly, all six are obligatorily followed by the suffix /se³³/, which otherwise only occurs after reduplicated stative verbs and adds a diminutive meaning. Negative extensives do not co-occur with the more usual verbal suffixes such as /ʔa³³/ or /ʔa³³/, which do occur after all other stative and nonstative verbs including the positive extensives. While other stative verbs may occur before /se³³/, this is only when they are reduplicated and with a distinct diminutive meaning; conversely the core negative extensives never occur reduplicated,⁵ which of course would have resulted in a four-syllable form for those with two syllables. They also lack echo-consonant intensifier forms,⁶ which exist for most other stative and nonstative verbs. Thus, in two respects they act syntactically as if they were already reduplicated, despite the fact that most of them have greater or lesser differences between the first and second syllable and some have only one syllable.

In terms of lexicon, Gong shares a large proportion of the uniquely MN extensives. However in a couple of cases it instead has cognates for TB forms not otherwise attested as extensives in MN. One example is /thi³⁵ʔa³³/ 'big'; cf. Benedict 1972: 66 (#298), where he also suggests a Myanmar cognate with the meaning shifted to 'very', as well as a Sinitic cognate /tài/ showing the same semantic shift.

EXTENSIVES IN MYANMAR (Burmese)

Myanmar and some other Mran extensive forms are shown in the Appendix below. The specific morphosyntactic developments of the extensives in N and in Gong are absent from Myanmar, which has a substantial number of lexical forms not shared with other MN languages. In most of these cases the extensive forms in other Mran languages do preserve a cognate with the L extensive forms, demonstrating that these are relatively

⁴ The positive extensive DEEP exceptionally lacks a reduplicated form; this can be related to the existence of a homophonous reduplicated stem form meaning 'dark', derived from the TB etymon for 'black'.

⁵ One speaker, a semispeaker who also uses some other syntactically unusual forms, does accept reduplicated negative extensive forms; but all fluent speakers and other semispeakers reject these. The forms NARROW, LIGHT, THIN are one syllable, do not end in /ʔ/, and do reduplicate; so in Gong they do not form part of the class of extensives. There are a few non-extensive stative verbs which do not reduplicate, but these do not occur with /se³³/ at all.

⁶ These echo-consonant forms are a partial reduplication which repeat the initial consonant of the verb stem and then have one of several vowels, with or without a final velar nasal; which vowel(s) may occur in the echo-consonant form is partly determined by vowel harmony from the verb stem and partly lexicalized.

recent Myanmar innovations. Conversely, inscriptional Myanmar forms as reported in Luce (1981) show conservative medial *l* in the forms WIDE and NARROW.

However, there are also independent instances of grammaticalisation similar to that seen in N. For example, the stative verb လောက် **lok** /lau?/ 'enough' has gone through a series of stages, all of which are still attested in modern Myanmar.⁷

လောက်	lok	Verb 'enough'
V + လောက်		Serial verb 'V enough, V sufficiently'
N + လောက်		Noun postposition
		1) 'as much as N'
		2) 'approximately N' (especially after Num + Clf)
ဘယ်လောက်	bhay lok	Substance Q 'how much?'

Furthermore, Myanmar also shows an independent grammaticalisation among its question words. In the earliest inscriptions, question forms showed the usual TB question prefix *a as in

အသူ	asu	'who?'
အဘယ်	abhay	'what?'

One possible source of the 'what?' form itself is the verbal and nominal form 'name' via the attested and still marginally extant literary form အမည်သူ **amañsu** 'which name one?' or 'the one named what?' for 'who?' However the 'what?' form with a labial stop initial is also well supported by cognates in other Mran languages; for example the Maru form /pɛ⁵⁵/, without anything reflecting the *a prefix. Conversely, one also finds different initials in the substance question words in some Mran languages, as in Arakanese ဇာ **za** /za¹¹/ which is used like modern Myanmar ဘယ် **bhay** /be¹¹/ 'which?' and in Arakanese is used for 'what?' as well.

In Myanmar, the second syllable of the 'what?' form was reanalyzed as itself being the question prefix, after it first lost its original prefix and began to be used independently as a prefix meaning 'which?' A new form for 'what?' was then formed by the cliticisation of the topic pronominal form ဘာ **ba** /ba¹¹/ onto the end of the prefix, giving the modern spoken form ဘာ **ba** /ba¹¹/ The prefix ဘယ် **bhay** /be¹¹/ then generalised to become the prefix on all substance question forms, as in modern spoken ဘယ်သူ **bhay su** /be¹¹ðu¹¹/ 'who?', which itself may even be replaced by the newer,

⁷ Forms in bold are a transliteration of the Myanmar orthographic forms.

productively formed compound of the prefix plus လူ *lu* /lu¹¹/ 'person' as in ဘယ်လူ *bhay lu* /be¹¹lu¹¹/ 'which person?' > 'who?' The grammaticalised prefix form may also be further cliticised and reduced in rapid speech to /bə/ as in /bəðu¹¹/ 'who?' and /bəlau/ 'how much?'

Nearly all Myanmar verbs have optional doublers; these are a second syllable which may be added to the verb in more formal or literary contexts. In most cases the doubler follows; in a few it precedes the single-syllable verb form. Sometimes the doubler preserves a cognate form also seen in N or elsewhere in TB; for example ကောင်းမွန် /kãũ⁴²mun¹¹/ 'good', where the second syllable does not occur alone in modern Myanmar, but has cognates in N (Bradley 1979b, #563A) and elsewhere in TB (Benedict 1972, #300). Many of the doublers reinforce the semantics of the verb; so for the extensives several of the positive extensives use the doubler မာ: /ma⁴²/, a bound form meaning 'big/multiple', also seen in the Lahu cognate /ma⁵³/ MANY.⁸ Several of the negative extensives use the doubler ပါ: /pa⁴²/, also the full verb THIN. For example, NEAR with its doubler is နှင်းပါ: /ni⁴²pa⁴²/. This can be related to the doubled form in Lahu, /ɔ²¹pa⁵³ne⁵³/ NEAR, but with the verbal constituents in the opposite order.

EXTENSIVES IN OTHER MRAN LANGUAGES

Apart from dialects of Myanmar including Arakanese, Tavoyan, Yaw, Danu, Intha and Taungyo, which tend to pattern exactly like Myanmar for extensives, the other Mran languages sometimes show lexical differences. One language, Hpun, as described by Luce and reported in Henderson (1986), shows several aberrant forms. Nearly all other Mran languages are sociopolitically part of the Kachin culture complex, and their speakers therefore also speak Jinghpaw Kachin and use it as a literary language. They are also in relatively close contact with a Tai language. Thus most of these Mran languages contain borrowings from Jinghpaw and/or Tai sources, including a few extensives.

Jinghpaw borrowings include most forms for WIDE and some forms for SHORT. In the Mran languages spoken in China, there are various Chinese loans, for example in WIDE and FEW. Shared non-Myanmar Mran innovations include an alternative form *tʃaŋ for NEAR, *tʃap for NARROW, *sum for LIGHT, *yam for THIN in some languages, an Atsi alternative /tiʔ/ for LITTLE, and forms for SHALLOW in Achang; note that Bola THIN replaces SHALLOW. Apart from WIDE, all of these are among the negative extensives, which are less stable across MN generally. Some other evidence of contact can be seen in phonological developments in Mran; for example changes of /n/ > /l/ and vice versa, seen also in Shan and Yunnan Mandarin. Some forms may show the effect of blending; for example, DEEP appears to

⁸ While the Lahu form has been thought to be cognate with the more widely attested extensive *mya² MANY, the correspondence between Lahu /ma⁵³/ and Myanmar မာ: is completely regular.

be a blend of the TB and MN etymon with the Tai form [luuk]. There are also some lexical gaps, such as SHALLOW which is expressed with the negative prefix plus the positive extensive in some languages.

A more fundamental type of phonological difference from other MN languages is the relative stability of syllable-final consonants; indeed, some Mran languages even undergo regular sound changes in which stops are added to some *MN open-syllable rhymes. This may be related to the fact that speakers of these languages are bilingual in Jinghpaw and often also Shan, both of which have a substantial array of final consonants; while speakers of Ni languages, Gong and Myanmar have not been in such intimate contact with languages retaining final consonants.

The grammaticalisation of the extensives found in Ni is absent from these Mran languages; of this I am confident, as I have tried to elicit such forms from speakers of Maru, Atsi, Ngoqchang and Lashi who are bilingual in Lahu, using Lahu as the language of elicitation.

CONCLUSION

In general, as indicated earlier, the positive extensives are more stable in MN; but cognates for all positive and negative extensives are distributed through all branches. A number of the positive extensives are MN innovations, so this stability appears not to have been a feature of MN vis-à-vis TB. Table 3 below summarises the MN cognate forms and reconstructed etyma. A comparison with the various non-MN forms assembled in the Appendix shows that Naxi, like some Qiangic Group TB languages, shares a number of TB cognates as well as a few additional eastern TB cognates, some slightly dubious, with MN. Jinghpaw, which is part of the Luish group along with Thet, shares many cognates with Thet but nothing with MN that is not also very widely attested throughout TB, apart from the Jinghpaw loanwords in some Mran languages. There are no obvious cognates, not even TB ones, among the Bai or Tujia extensives; thus the classification suggested by some Chinese linguists linking these two languages to MN is not supported.

The linking with Rawang/Nung is lexically somewhat closer; the usual MN etyma for FAR, HIGH, LOW, BIG, FEW, WIDE-2 and DEEP are represented in one or other of these languages. However the connection is much less close than the internal MN one, and in some cases it is only one subvariety of Rawang/Nung which contains a cognate: Nusu for FAR and BIG and Dulong for FEW. Cognates for DEEP occur in Dulong and with a final nasal in Anong; possible WIDE-2 cognates occur in some varieties of Nusu; cognates for LOW are seen in Nusu and Anong, but again with phonological differences. Best-supported is the etymon for HIGH, found throughout Rawang/Nung; but Benedict (1972) suggests that this may in fact be a TB etymon, not restricted to MN. Rawang/Nung also shares a substantial

proportion of its basic lexicon with Jinghpaw and other Luish languages as well, and thus some of the MN similarities may be due to contact.

The fact that Gong cognates are absent for some MN extensive forms may reflect two factors: the innovation process which has produced the phonological and syntactic properties of the negative extensives, and the sociolinguistic fact that Gong is a dying language whose TB lexicon is relatively impoverished and inundated with Thai loanwords.

There is a grammaticalisation process in N whereby extensives gain additional question/adverbial/nominal forms reflecting *Tone 3, if they are not already in that tone, which is reflected by at least one language in all three branches of N. This process was discussed in Bradley (1979a: 145-146, 1979b: 240-241). There are also initial consonant effects. The maximum number of such grammaticalised forms attested in a language is nine (Nosu, apart from Yinuo); eight are found in Yinuo, Lahu, Lisu and Lipo; seven in Nisu; four in Pula; three in Akha; and one in several other languages. Most such forms show tonal alternations; some also show initial consonant differences. The consonant differences are seen in three forms in Lahu and in one Nisu and Pula form. The tonal alternations in Nosu are a separate and more recent development.

These innovative N forms appear in substance question forms, in reduplicated adverbials (with diminutive or augmentative meanings, or both), and in some languages, such as Lahu, also as head nominals. Again, the number of such forms differs among languages; for example, Nosu has nine question forms, Nisu, Lahu, Lisu and Lipo have eight, Pula has four, Akha has three, and Nasu and Sami have one. In the best-described N language, Lahu, there are up to eight bound head nominal forms used by some speakers; such forms almost certainly exist in other L languages where they have not been fully described yet. Some combination processes trigger other kinds of tone sandhi in the extensive forms, as in Lahu with diminutive extensives and colours gaining the [35] tone or in various Nosu forms which acquire the [44] sandhi tone or the [21] tone by sandhi.

Also involved are the nominalising prefix *a and the alternative MN question prefix *ka¹, which may themselves be part of the conditioning environment for the tone changes in the extensive forms which follow them. Forms derived from the *ka¹ prefix are found for a greater or smaller proportion of the substance question words in Nosu, Lahu, Lipo, Jinuo, Hani, Mpi and various other L languages, in addition to their use before extensives. It is less widespread in WHO and WHAT, where some languages like Lahu retain a reflex of the *a prefix instead; this is exactly parallel to the situation in inscriptional Mran. Thus some extremely closely related languages, such as Lisu and Lipo or Akha and Hani, differ in the use of these two question prefixes. There is a general implicational scale for interrogative extensive forms in L: if a language has any grammaticalised, the most likely is MANY,

then BIG and FAR, followed by LONG, then HIGH, then WIDE and/or DEEP followed by THICK, and (least likely) HEAVY. This hierarchy holds even if some of the extensive forms are noncognate, as for Akha FAR/LONG or Lipo WIDE.

Tones reconstructed in the basic positive extensive forms include *Tone 1 (LONG (distance), WIDE-1, THICK), *Tone 2 (FAR, BIG, MANY, HEAVY), *Tone 3 (HIGH, LONG (time), WIDE-2), and *Low Stopped (DEEP). In the derived forms, as noted above, the question/nominal form tends to shift to a reflex of *Tone 3, whatever the original MN *Tone; so while HIGH, LONG (time), WIDE-2 do not shift, most other extensives do. This parallels the MN origin of *Tone 3, which originates from *Tone 1 and *Tone 2 in certain environments where the syllable has a **ʔ/s* prefix; for the extensives the question/nominalising prefix appears to provide the necessary prefix. Other sandhi processes in Nosu, Lahu and other languages lead to the development of further tonal alternations.

Syntactically, reduplicated and other diminutive or augmentative adverbials derived from the extensives, like most other adverbials in MN including temporal, locative and manner, operate as a subclass of nominals. The reduplicated and other deverbal manner adverbials tend to occur preverbally, but like other nominal elements they do not normally occur sentence-finally, which is the verbal position. Question forms tend not to be moved to sentence-initial position, unlike the corresponding WH-words in English and many other languages, but like other TB and ST languages.

Table 3: Summary of MN and TB extensive cognates

<i>gloss</i>	<i>Burmish (Mran)</i>	<i>Loloish (Ni)</i>	<i>Gong</i>	<i>Nung</i>	<i>Naxi</i>	<i>Jinghpaw</i>	<i>MN (Bradley 1979b)</i>	<i>TB (Benedict 1972)</i>
FAR	XX	XX	XX	XX			*we ²	(p.61 MN)
NEAR	X	X		X	X		*b-ni ²	#291
HIGH	XX	XX	XX	XX			*ʔ-mron ³	(p.43 MN)
LOW	(X)	X	X	X	X		*ʔ-nim ³	#348
BIG	XX	XX		XX			*k-ri ²	
LITTLE	XX	XX	XX				*n-yay ¹	
LONG (d)	X	X	?	X	X	X	*s-mrin ¹	#433
LONG (t)		XX					*mon ^{3/1} 9	
SHORT (d)	X	X					*ʔ/s-nim ¹	
MANY	X	X	X	X			*C-mya ²	#148
FEW	XX	XX	XX	XX	XX		*nay ²	
WIDE-1	XX	XX	XX				*glay ¹	
WIDE-2		XX		XX	XX		*ʔ/s-wan ³	
NARROW	XX	XX	XX		?		*glin ²	
DEEP	XX	XX	XX	XX			*ʔ-nak ^L	
SHALLOW	XX	XX	XX		XX		*dim ¹	
HEAVY	X	X	X	X	X	X	*C-li ²	#95
LIGHT	X	X	X	X	?		*s-lan ¹	#328
THICK	X	X	X	X		X	*tu ¹	#319
THIN	X	X		X	X	X	*ba ²	#25

XX indicates MN cognate

X indicates TB cognate

? indicates doubtful cognate

The evidence for these etyma is contained in the Appendix; where not relevant, unassimilated loanword forms are omitted from the Appendix. In a few cases the available sources do not provide the relevant form.

9 In N languages only.

Appendix: Inventories of Extentives in Mran-Ni and Other TB Languages

(1) NORTHERN NI
Nosu (Sichuan)

	<i>Shengza (C)</i>	<i>Yinuo (N)</i>	<i>Sondi (SW)</i>	<i>Adur (SE)</i>
FAR	ka ⁴⁴ so ³³	ka ³³ so ³³	ka ⁴⁴ so ³³	ka ⁴⁴ su ³³
NEAR	ka ⁴⁴ ji ³³	ka ³³ ji ³³	ka ⁴⁴ ji ³³	ka ⁴⁴ ji ³³
PATH	ka ³³ /ka ⁴⁴	ka ³³	ka ³³ /ka ⁴⁴	ka ³³ /ka ⁴⁴
HIGH	ʔa ³³ hmu ³³	ʔa ³³ hmu ²²	ʔa ⁴⁴ mu ³³	ʔa ⁴⁴ mu ³³
LOW	ʔi ⁴⁴ hmu ³³	ʔi ²² hmu ³³	ʔi ⁴⁴ mu ³³	ʔi ⁴⁴ mu ³³
HOW HIGH?	khə ²¹ hmu ⁴⁴	khə ³³ hmu ²¹	ɦa ²¹ mu ⁴⁴	ɦa ²¹ mu ⁴⁴
BIG	ʔa ⁴⁴ zi ³³	ʔa ³³ zu ³³	ʔa ⁴⁴ zi ³³	ʔa ⁴⁴ zi ³³
LITTLE	ʔe ³³ tsi ⁵⁵	ʔe ⁴⁴ tsi ⁴⁴	ʔe ⁵⁵ tsi ⁵⁵	ʔe ⁵⁵ tsi ³³
HOW BIG?	khə ²¹ zi ⁴⁴	khə ³³ zu ²¹	ɦa ²¹ zi ⁴⁴	ɦa ²¹ zi ³³
LONG (d)	ʔa ³³ so ³³	ʔa ³³ so ³³	ʔa ⁴⁴ so ³³	ʔa ⁴⁴ su ³³
SHORT(d)	ʔi ⁴⁴ so ³³	ʔi ²² so ³³	ʔi ⁴⁴ so ³³	ʔi ⁴⁴ su ³³
HOW LONG (d)?	khə ²¹ so ⁴⁴	khə ³³ so ²¹	ɦa ²¹ so ⁴⁴	ɦa ²¹ su ⁴⁴
LONG (t)	ʔa ³³ ɦo ⁴⁴	ʔa ³³ ɦo ²²	ʔa ⁴⁴ ɦo ³³	ʔa ⁴⁴ fu ³³
SHORT (t)	ʔi ⁴⁴ ɦo ³³	ʔi ²² ɦo ³³	ʔi ⁴⁴ ɦo ³³	ʔi ⁴⁴ fu ³³
HOW LONG (t)?	khə ²¹ ɦo ⁴⁴	khə ³³ ɦo ²¹	ɦa ²¹ ɦo ⁴⁴	ɦa ²¹ fu ⁴⁴
MANY	ʔa ⁴⁴ ji ³³	ʔa ³³ ji ³³	ʔa ⁴⁴ jo ³³	ʔa ⁴⁴ ji ³³ /ʔa ⁴⁴ jo ³³
FEW	ʔi ⁴⁴ ji ³³	ʔi ²² ji ³³	ʔi ⁴⁴ jo ³³	ʔi ⁴⁴ ji ³³ /ʔi ⁴⁴ jo ³³
HOW MANY?	khə ²¹ ji ⁴⁴	khə ³³ ji ²¹	ɦa ²¹ jo ⁴⁴	ɦa ²¹ ji ⁴⁴ /ɦa ²¹ jo ⁴⁴
WIDE (2d)	ʔa ³³ fi ³³		ʔa ⁴⁴ fi ³³	ʔa ⁴⁴ fi ³³
NARROW (2d)	ʔi ⁴⁴ fi ³³		ʔi ⁴⁴ fi ³³	ʔi ⁴⁴ fi ³³
HOW WIDE? (2d)	khə ²¹ fi ⁴⁴		ɦa ²¹ fi ⁴⁴	ɦa ²¹ fi ⁴⁴
WIDE (3d)	ʔa ³³ dzi ³³	ʔa ³³ dzi ²²	ʔa ⁴⁴ dzi ³³	ʔa ⁴⁴ dzi ³³
NARROW (3d)	ʔi ⁴⁴ dzi ³³	ʔi ²² dzi ³³	ʔi ⁴⁴ dzi ³³	ʔi ⁴⁴ dzi ³³
HOW WIDE (3d)?	khə ²¹ dzi ⁴⁴	khə ³³ dzi ²¹	ɦa ²¹ dzi ⁴⁴	ɦa ²¹ dzi ⁴⁴
DEEP	ʔa ³³ hnu ⁵⁵	ʔa ³³ hnu ⁵⁵	ʔa ⁴⁴ nu ⁵⁵	ʔa ⁴⁴ nu ⁵⁵
SHALLOW	ʔi ⁴⁴ di ³³	ʔi ²² di ³³	ʔi ⁴⁴ di ³³	ʔi ⁴⁴ di ³³
HEAVY	ʔa ⁴⁴ li ³³	ʔa ³³ li ³³	ʔa ⁴⁴ li ³³	ʔa ⁴⁴ li ³³
LIGHT	yo ⁴⁴ so ³³	ʔi ²² li ³³ /ʔi ²² so ³³	ʔi ⁴⁴ li ³³ /lo ⁴⁴ so ³³	ʔi ⁴⁴ li ³³ /ʔi ⁴⁴ lo ³³
HOW HEAVY?	khə ²¹ li ⁴⁴	khə ³³ li ²¹	ɦa ²¹ li ⁴⁴	ɦa ²¹ li ⁴⁴
THICK	ʔa ⁴⁴ tu ³³	ʔa ³³ tu ²²	ʔa ⁴⁴ tu ³³	ʔa ⁴⁴ u ³³
THIN	ʔi ⁴⁴ tu ³³	ʔi ²² tu ³³	ʔi ⁴⁴ tu ³³	ʔi ⁴⁴ tu ³³
HOW THICK?	khə ²¹ tu ⁴⁴	khə ³³ tu ²¹	ɦa ²¹ tu ⁴⁴	ɦa ²¹ tu ⁴⁴

(2) Eastern, Southern and Southeastern Ni

	Nasu				Nisu		
	Wusa	Shuixi	Yunnan	Guangxi	Shiping	Mojiang	Shuangbo
FAR	vu ³³	vu ³³	vi ³³	vi ³³	vi ³³	ve ³³	viə ³³
NEAR	ne ³³	ne ³³	no ³³	na ³³	ny ³³	ne ³³	pe ³³
HIGH	mu ³³	m ³³	mu ²¹	dza ³³	mo ⁵⁵	mo ⁵⁵	ma ⁵⁵
LOW	ne ³³	pie ²¹	na ²¹	na ²¹	di ⁵⁵	di ⁵⁵	di ⁵⁵
BIG	ye ³³	ye ³³	yo ³³	yo ³³	yu ³³	ye ³³	ye ³³
LITTLE	ba ⁵⁵	ba ²¹	jo ³³	ja ³³	je ⁵⁵ /ny ⁵⁵	je ⁵⁵	pe ⁵⁵
LONG	se ¹³	ciə ³³	ɕə ³³	ɕə ⁴⁴	ɕə ⁵⁵	se ⁵⁵	se ⁵⁵
SHORT	dü ³³	di ³³	ja ³³	ji ³³	na ³³	nu ³³	ny ³³
MANY	nu ³³ /nu ³³	no ³³	no ³³	nu ⁴⁴	no ³³	no ³³	no ³³
FEW	ne ³³	ne ³³	na ³³	da ²¹	dzi ³³	nu ²¹	dzi ⁵⁵
WIDE	de ²¹	da ²¹	fe ³³ /ŋthu ²¹	(C)	fi ³³	(C)	py ⁵⁵
NARROW	yu ³³	yo ³³	yo ³³	mu ²¹	ma ²¹ fi ³³	(C)	tshe ⁵⁵
DEEP	na ¹³	na ¹³	na ⁵⁵	ne ⁵⁵	ni ²¹	ne ²¹	niə ²¹
SHALLOW	du ²¹	du ²¹	de ²¹	ma ²¹ ne ⁵⁵	ma ²¹ ni ²¹	de ³³	ma ²¹ niə ²¹
HEAVY	li ³³	li ³³	li ³³	li ⁴⁴	li ³³	li ³³	li ³³
LIGHT	lo ²¹	lo ²¹	lo ²¹	lo ²¹	lo ²¹	lo ²¹	la ²¹

	Southeastern Ni					
	Parxian	Sami	Sani	Axi	Azhe	Pula
FAR	ve ²²	gɔ ³³ vi ²¹	mi ³³ vi ²¹	mi ³³ vi ²¹	vi ²¹	vu ²¹
NEAR	na ³³	gɔ ³³ na ²¹	mi ³³ ne ²¹	na ²¹	ne ²¹	du ³³ ni ⁵⁵
HIGH	mu ²¹	m ⁴⁴	mu ³³	mo ³³	mo ³³	mo ³³
LOW	na ²¹	ʔu ²¹ /by ³³	ne ³³	ne ⁵⁵	dzi ³³	je ⁵⁵ tho ²¹
BIG	ya ³³	ya ²¹	ze ²¹	ya ²¹	ye ²¹	ji ²¹
LITTLE	ba ⁵⁵ /ni ³³	zy ⁵⁵	je ⁵⁵	na ³³	je ³³	na ⁵⁵
LONG	ɕə ³³	ci ³³	ɕə ³³ /je ²¹	ja ²¹ /xe ³³	xe ³³	xe ⁵⁵
SHORT	po ²²	du ²¹	ni ⁵⁵	nu ⁵⁵	nu ⁵⁵	je ⁵⁵ tho ²¹
MANY	nu ³³	no ²¹	no ⁵⁵	no ²¹	no ²¹	na ²¹
FEW	na ³³	pi ²¹	so ²¹	so ²¹	ne ⁵⁵	pe ²¹
WIDE	da ²¹	(C)	dlo ²¹	[a ³³ ba ⁵⁵	(C)	dli ³³
NARROW	vu ³³	(C)	(C)	yo ²¹ tsi ⁵⁵	yo ⁵⁵	ma ³³ dli ³³
DEEP	na ²¹	ne ⁵⁵	ne ⁵⁵	ne ⁵⁵	ji ⁵⁵	na ³³
SHALLOW	do ²¹	du ³³	tu ³³	du ³³	du ⁵⁵	ma ³³ na ³³
HEAVY	li ³³	zi ²¹	li ²¹	tu ²¹	li ²¹	hm ⁵⁵
LIGHT	lo ²¹	lu ³³	lo ³³	lo ³³	lu ²²	ma ³³ hm ⁵⁵

(3) CENTRAL NI
Lahu, Lisu, Lipo, Lalaw, Jinuo

	Lahu					
	<i>Black</i>	<i>Yellow</i>	<i>Lisu</i>	<i>Lipo</i>	<i>Lalaw</i>	<i>Jinuo</i>
FAR	v ⁱ⁵³	v ⁱ⁵⁵	ʔu ²¹	vi ²¹	ʃi ⁵⁵	xu ⁴⁴
NEAR	pa ⁵³ ne ⁵³	pa ⁵⁵ ne ⁵⁵	pha ³³ ne ²¹	næ ²¹	ne ²¹	çe ⁵⁵
HOW FAR?	qha ²¹ fi ³³	khwe ⁵³ fi ³³	ʔa ³³ ʔu ⁴⁴	khɔ ²¹ vi ³³		
DISTANCE	ɔ ²¹ fi ³³	ɔ ⁵³ fi ³³				
HIGH	mu ³³	mu ³³	mu ³³	mu ³³	mɤ ⁵⁵	thɔ ⁴²
LOW	ne ²¹	ne ⁵³	ʔø ³³	ʔy ³³	ni ⁵⁵	tçi ⁵⁵
HOW HIGH?	qha ²¹ mu ³³	khwe ⁵³ mu ³³	ʔa ³³ mu ³³	khɔ ²¹ mu ³³		
HEIGHT	ɔ ²¹ mu ³³	ɔ ⁵³ mu ³³				
BIG	i ¹¹²	i ¹¹	vu ²¹	væ ²¹	ze ²¹	xu ⁴⁴
LITTLE	i ³³	i ³³	ne ⁵⁵ /tçi ³³	zæ ³³	ʔu ⁵⁵ /nu ²¹	mi ⁴² /ni ⁵⁵
HOW BIG?	qha ²¹ hi ³³	khwe ⁵³ hi ³³	ʔa ³³ vu ³³			
SIZE	ɔ ²¹ hi ³³	ɔ ⁵³ hi ³³				
LONG (d)	zi ²¹	ye ²¹	ʃi ³³	ʃi ³³	ʃi ⁵⁵	ʃu ⁴²
SHORT(d)	ŋe ³³	ŋe ³³	no ⁵⁵ /du ⁵⁵	ju ⁵⁵ /ni ⁵⁵	ny ²¹	tso ⁵⁵
HOW LONG?	qha ²¹ sɪ ³³	khwe ⁵³ ʃe ³³	ʔa ³³ ʃi ³³	khɔ ²¹ ʃi ³³		
DISTANCE	ɔ ²¹ sɪ ³³					
LONG (t)	mɔ ³³	mɔ ³³	mu ³³ ʃi ³³	ʃi ³³		
SHORT (t)	ma ⁵³ mɔ ³³	ma ⁵⁵ mɔ ³³	du ⁵⁵	mɔ ²¹ ʃi ³³		
HOW LONG? (t)	qha ²¹ mɔ ³³		ʔa ³³ mu ⁴⁴	khɔ ²¹ ʃi ³³		
MANY	ma ⁵³	mɛ ⁵⁵ /ma ⁵⁵	mja ²¹	mju ²¹ /mɔ ²¹	khu ⁵⁵	mjo ⁴⁴
FEW	ma ⁵³ ma ⁵³	ne ⁵⁵	ne ⁵⁵	mɔ ²¹ mɔ ²¹	ma ²¹ çi ²¹	me ⁴²
HOW MANY?	qha ²¹ ma ³³	khwe ⁵³ ma ³³	ʔa ³³ mja ³³	khɔ ²¹ mɔ ³³		
QUANTITY	ɔ ²¹ ma ³³	ɔ ⁵⁵ ma ³³				
WIDE	fe ³³ /qe ²¹	fe ³³ /ky ⁵³	çe ³³ /ga ⁴⁴	khwã ³³ (C)	(C)	tçi ⁴⁴ kɔ ⁴²
NARROW	tçe ¹¹²	tçe ¹¹	mi ⁵⁵ /tshi ³³	(C)	(C)	tche ⁴²
HOW WIDE?	qha ²¹ qe ³³ / qha ²¹ fe ³³		ʔa ³³ çe ⁴⁴	khɔ ²¹ khwã ³³	(C)	
WIDTH	ɔ ²¹ qe ³³					
DEEP	na ³⁵	na ¹³	næ ⁵⁵	ne ⁵⁵	ni ²¹	na ⁵⁵
SHALLOW	pɛ ⁷⁵⁴ ne ⁷⁵⁴	pɛ ⁷⁴⁵ ne ⁷⁴⁵	thæ ²¹	thi ³³	ba ²¹	tɛ ⁵⁵
HOW DEEP?				khɔ ²¹ ne ⁵⁵		
HEAVY	hɔ ⁵³	hɔ ⁵⁵	li ²¹	li ²¹	ʔi ²¹	ti ⁴⁴
LIGHT	lo ²¹	lo ⁵³	lo ⁴⁴	lo ³³	lu ⁵⁵	jɔ ⁴²
HOW HEAVY?				khɔ ²¹ li ³³		
THICK	thu ³³	thu ³³	thu ³³	thu ³³	thu ⁵⁵	thu ⁴⁴
THIN	pa ⁵³	pa ⁵⁵	ba ²¹	bɔ ²¹	ba ²¹	po ⁴⁴
HOW THICK?			ʔa ³³ thu ³³	khɔ ²¹ thu ³³		

**(4) SOUTHERN NI
Akhoid (Akha, Hani, Haoni) and other**

	<i>Akha</i>	<i>Hani</i>	<i>Haoni</i>	<i>Piyo</i>	<i>Khatu</i>	<i>Bisu</i>	<i>Mpi</i>
FAR	ga ⁵⁵ m ⁵⁵	xu ²¹ / mo ⁵⁵	ye ²¹ / mu ⁵⁵	mu ⁵⁵		ʔaŋ ³³ wə ²¹	hy ¹³
NEAR	dɔ ²¹ phe ³³	ji ²¹	ji ²¹	tse ⁵⁵		ʔaŋ ³³ di ²¹ / ʔaŋ ³³ the ⁵⁵	thoŋ ³³ se ⁷⁴
HOW FAR?	ʔa ⁵⁵ m ⁵⁵						
HIGH	jɔ ³³ go ⁵⁵ (C?)	go ²¹ (C?)	kɔ ³³ (C)	kau ³³ (C)	mu ⁵⁵	ʔaŋ ³³ hmɔŋ ²¹	mjoŋ ⁵⁵
LOW	jɔ ³³ ʔɔ ³³ / jɔ ³³ thi ⁵⁵	bjo ³³	mi ³³	ke ³³		ʔaŋ ³³ hɲum ²¹	niŋ ³⁴
BIG	jɔ ³³ hu ²¹	xu ²¹	xu ²¹	xv ²¹	xu ²¹	ʔaŋ ³³ hi ²¹	hu ¹³
LITTLE	jɔ ³³ ji ⁵⁵	ji ⁵⁵	mu ⁵⁵	ji ⁵⁵ /jv ⁵⁵	ji ⁵⁵ /ʔa ²¹ jo ²¹	ʔaŋ ³³ ji ⁵⁵	ju ⁵⁵
HOW BIG?	ʔa ⁵⁵ hu ³³						
LONG	jɔ ³³ m ⁵⁵	mo ⁵⁵	mu ⁵⁵	mu ⁵⁵	mu ⁵⁵	ʔaŋ ³³ hmɔŋ ²¹	su ⁵⁵
SHORT	jɔ ³³ ɲi ⁵⁵	jo ⁵⁵	nu ⁵⁵	tɔ ²¹ pi ⁵⁵	tɔ ⁵⁵ ji ⁵⁵	ʔaŋ ³³ hɲum ²¹	hiŋ ⁵⁵ / jiŋ ⁵⁵
HOW LONG?	ʔa ⁵⁵ m ⁵⁵						
MANY	jɔ ³³ mja ²¹	mja ²¹	mɔ ²¹	mɔ ²¹	mo ²¹ /mjo ²¹	ʔaŋ ³³ bja ²¹	mjo ¹³
FEW	jɔ ³³ chu ³³	no ²¹	fɔ ²¹ (C)	sau ²¹ (C)		ma ³³ bja ²¹	ju ⁵⁵
HOW MANY?	ʔa ⁵⁵ mja ³³						
WIDE	jɔ ³³ dze ⁵⁵	dze ⁵⁵	khwā ³³ (C)	khwan ³³ (C)		ʔaŋ ³³ klɪ ⁵⁵	ku ⁵⁵
NARROW	jɔ ³³ su ²¹	the ²¹	tsv ³⁵ (C)	tsv ³⁵ (C)		ʔaŋ ³³ khep ³³ / ʔaŋ ³³ tjɔm ²¹	
DEEP	jɔ ³³ na ²¹	na ²¹	na ²¹	na ²¹	na ²¹	ʔaŋ ³³ hna ²¹	naŋ ¹³
SHALLOW	ma ²¹ na ²¹	te ³³	le ⁵⁵ si ³³	ma ²¹ na ²¹		ma ³³ hna ²¹	
HEAVY	jɔ ³³ kh ⁵³	ɔ ³³	tʃhu ³³ (C)	tshi ³³ (C)	tshuŋ ³³ (C)	ʔaŋ ³³ han ³³	li ¹³
LIGHT	jɔ ³³ phya ⁵	phja ⁵⁵	phɔ ⁵⁵	pha ⁵⁵		ʔaŋ ³³ jaŋ ⁵⁵	
THICK	jɔ ³³ thu ⁵⁵	thu ⁵⁵	xe ⁵⁵ (C)	xvu ⁵⁵ (C)	thu ⁵⁵	ʔaŋ ³³ thu ⁵⁵	thu ⁵⁵
THIN	jɔ ³³ ba ²¹	ba ²¹	pɔ ²¹	pɔ ²¹	pɔ ²¹	ʔaŋ ³³ pa ²¹	

(5) GONG (=Ugong=Kanburi Lawa)
 Kok Chiang village, Suphanburi Province, Thailand

	<i>Positive</i>	<i>Negative</i>	<i>Diminutive</i>
FAR	waŋ ³⁵ ɑ ³³	mə ³³ waŋ ⁵⁵	waŋ ³⁵ waŋ ⁵³
NEAR	sɔ ⁷⁵⁵ sɛ ³³	sɔ ⁷⁵⁵ sɛ ³³ mə ³³ thi ³⁵	*
HIGH	gɔŋ ¹¹ ɑ ³³	mə ³³ gɔŋ ⁵³	gɔŋ ⁵³ gɔŋ ¹¹
LOW	ŋəŋ ¹¹ sɛ ³³	mə ³³ ŋəŋ ⁵³	*
BIG	thi ³⁵ ɑ ³³	mə ³³ thi ⁵⁵	cuaŋ ³³ cuaŋ ³⁵ thi ³⁵ ɑ ³³
LITTLE	pɛ ⁷⁵⁵ (nɛ ⁷⁵⁵)sɛ ³³	mə ³³ pɛ ⁷⁵⁵	*
LONG	kəŋ ⁵³ ɑ ³³	mə ³³ kəŋ ⁵⁵	kəŋ ⁵³ kəŋ ³³
SHORT	bə ¹¹ lɛ ⁷¹¹ sɛ ³³	mə ³³ bə ³⁵ lɛ ⁷³⁵	*
MANY	ŋɑ ³⁵ ɑ ³³	mə ³³ ŋɑ ⁵⁵	ŋɑ ⁵³ ŋɑ ³³
FEW	ʔɑ ³³ nɛ ⁷⁵⁵ sɛ ³³	ʔɑ ³³ nɛ ⁷⁵⁵ sɛ ³³ mə ³³ thi ³⁵	*
WIDE	khli ³³ ɑ ³³	mə ³³ khli ³⁵	*
NARROW	klɛŋ ⁵³ ɑ ³³	mə ³³ klɛŋ ³⁵	klɛŋ ⁵³ klɛŋ ³³
DEEP	nɔ ⁷³³ ɑ ³³	mə ³³ nɔ ⁷³⁵	* (see DARK)
SHALLOW	lɛ ³³ lɛ ³³ sɛ ³³	mə ³³ lɛ ³⁵	*
HEAVY	dɪ ³⁵ ɑ ³³	mə ³³ dɪ ⁵⁵	dɪ ⁵⁵ dɪ ⁵⁵
LIGHT	blɛŋ ³⁵ ɑ ³³	mə ³³ blɛŋ ⁵⁵	blɛŋ ⁵⁵ blɛŋ ⁵⁵
THICK	dɔ ³³ ɑ ³³	mə ³³ dɔ ³⁵	dɔ ³³ dɔ ³³
THIN	phli ³⁵ ɑ ³³	mə ³³ phli ⁵⁵	phli ³⁵ phli ⁵⁵
BE THE CASE	thi ³³ ɑ ³³	mə ³³ thi ³⁵	*
DARK	nɔ ⁷⁵⁵ nɔ ⁷⁵⁵	mə ³³ nɔ ⁷⁵⁵	*

(6) MYANMAR (Burmese) AND HPUN

	<i>single</i>	<i>doubled</i>	<i>Taungyo</i>	<i>Hpun</i>
FAR	ဝေး	ဝေးကွာဝေးလံ	we ⁴²	we ¹¹
NEAR	နီး	နီးပါး	ni ⁴²	ne ¹¹
HIGH	မြင့်	မြင့်မား	mljɪn ⁴⁴ /mlɪn ⁴⁴	mjo ¹¹
LOW	တို၊နိမ့်	တိုတောင်း	njɪn ⁴⁴	nai ¹¹
BIG	ကြီး	ကြီးမား	ki ⁴²	tɕeʔ ¹¹ /tɕiʔ ¹¹
LITTLE	နည်း	နည်းပါး	ɲɛ ²²	
LONG (d)	ရှည်	ရှည်မျောရှည်လျား	tɕhe ²² /khe ²²	xai ⁵⁵ /xrai ⁵⁵
SHORT(d)	တို၊နိမ့်	တိုတောင်း	tɪ ²²	
LONG (t)	ကြာ	ကြာရှည်၊ကြာညောင်း		
SHORT (t)	တို	တိုတောင်း		
MANY	များ	များပြား	mja ⁴²	za ¹¹
FEW	နည်း	နည်းပါး	ne ⁴²	ne ¹¹
WIDE	ကျယ်	ကျယ်ပြော၊ကျယ်နံ့	klæ ²²	pjoʔ ⁵⁵
NARROW	ကျဉ်း	ကျဉ်းမြောင်း	klain ⁴²	ʃaʔ ⁵⁵
DEEP	နက်	နက်နဲ	næʔ ⁵	nʊʔ ¹¹
SHALLOW	တိမ်		tin ²²	tɛ ¹¹
HEAVY	လေး	လေးလံ	le ⁴²	mje ¹¹
LIGHT	ပေါ့	ပေါ့ပါး	pɔ ⁴²	lo ¹¹
THICK	ထူ	ထူထဲ	thu ²²	thu ⁵⁵
THIN	ပါး	ပါးလျာ	pu ⁴²	pa ¹¹

(7) OTHER MRAN LANGUAGES

	<i>Sadon</i>	<i>Atsi</i> <i>Kengtung</i> (China)	<i>Maru</i> <i>(China)</i>	<i>Bola</i> <i>(China)</i>	<i>Xlandao</i> <i>(China)</i>
FAR	we ³³	we ⁵³	va ²¹	va ³⁵	ve ³¹
NEAR	caŋ ³³	tcəŋ ³³	tfaŋ ⁵⁵	tʃə ³⁵	ne ³¹
HIGH	mjaŋ ⁵³	mjaŋ ³³	mjaŋ ⁵¹	mja ³¹	hmjaŋ ⁵⁵
LOW	ɲum ⁵³	ɲum ²¹	ɲjum ⁵¹	ɲja ³¹	hɲim ^{51/31}
BIG	kə ³³	kə ⁵³	kə ²¹	ɣə ³⁵	kə ³⁵
LITTLE	ɲe ^{33/je³³/tɕ⁵⁵}	tɕ ⁵³	tɕ ²¹	ɲai ³¹	ɲai ⁵⁵
LONG	xɲ ⁵³	hɲ ³³	xɲ ⁵¹	xəŋ ³¹	sɲ ⁵⁵
SHORT	tə ⁵⁵ (Jg)	tə ⁵⁵ (Jg)	tə ⁵⁵ (Jg)	ləŋ ⁵⁵	ləŋ ³⁵
MANY	mjo ³³	mjo ³³	mjo ²¹	mja ³¹	ɲə ³¹
FEW	fau ³³ (C)	a ²¹ mjo ³³	fau ²¹ (C)	fau ³¹ (C)	nɲ ³¹
WIDE	lam ⁵³ (Jg)	lam ²¹ (Jg)	lam ⁵¹ (Jg)	lɛ ⁵⁵ (Jg)	kaŋ ³¹
NARROW	tʃap ⁵⁵	tʃap ⁵⁵	tʃap ⁵⁵	tʃə ³⁵	hɲap ⁵⁵
DEEP	nik ³³	nik ⁵³	nik ²¹	na ³¹	nuk ⁵⁵
SHALLOW	ʔə ³³ nik ³³		a ²¹ nik ²¹	mə ³¹ na ³¹	n ³¹ nuk ⁵⁵
HEAVY	lai ³³	lɛ ⁵³	lai ²¹	li ³¹	lai ³¹
LIGHT	som ⁵⁵	som ⁵³	som ²¹	sum ³⁵	sə ³⁵
THICK	thu ⁵³	thu ³³	thu ⁵¹	thau ³¹	thu ⁵⁵
THIN	pə ³³	jam ⁵³	jam ⁵⁵	pə ³⁵	pa ³⁵

	<i>Achang</i> <i>Longchuan</i>	<i>Luxi</i> <i>Lianghe</i>	<i>Ngoqchang</i> <i>(Myanmar)</i>	<i>Lashi</i> <i>(Myanmar)</i>	<i>Lashi</i> <i>(China)</i>
FAR	ve ³¹	we ⁵¹	wai ²¹	we ³³ ma ¹¹	ve ³³
NEAR	ne ³¹	ai ⁵⁵	ai ²¹	ni ³³ ma ¹¹	tʃə ⁵³
HIGH	hmjaŋ ⁵⁵	mjaŋ ³⁵	hmjaŋ ⁵⁵	ɲaŋ ³³	mja ³³
LOW	hɲon ⁵⁵	ɲin ²¹	hmjiŋ ⁵⁵	ɲjen ³³	mjom ³³
BIG	kja ³¹	ku ⁵¹	ku ²¹	ku ⁵⁵	gyi ³³
LITTLE	ɲi ⁵⁵	ɲə ²¹	ɲe ⁵⁵	ɲi ¹¹	ɲe ⁵⁵
LONG	səŋ ⁵⁵	əŋ ³⁵	suŋ ⁵⁵	xɲ ³³	ʃəŋ ³³
SHORT	zəŋ ³¹	liuŋ ²¹	tua ⁵⁵ (Jg)	lɲuŋ ³³	lɛŋ ⁵⁵
MANY	ɲə ²¹	ɲa ⁵¹	ɲə ²¹	ɲo ³³ fo ⁵⁵	mjo ³³ fo ⁵⁵
FEW	nəŋ ³¹	nəŋ ⁵¹	nəŋ ²¹	na ³³	nəŋ ³³ zo ³³
WIDE	kaŋ ³¹	khə ⁵⁵	khū ²¹ (C)	lam ¹¹ (Jg)	lam ¹¹ (Jg)
NARROW	ɲop ⁵⁵	tsə ²¹	tsə ²¹	zu ¹¹	zu ¹¹
DEEP	lək ⁵⁵	nək ²¹	luk ⁵⁵		nək ³¹
SHALLOW	tshe ⁵⁵	tchen ⁵¹	tchen ⁵⁵		pə ⁵⁵
HEAVY	li ³¹	lu ⁵¹	lai ²¹	lei ³³	lai ³³
LIGHT	zan ⁵⁵	sə ⁵¹	se ²¹		su ⁵⁵
THICK	kan ⁵¹	kan ⁵¹	kan ²¹	thəu ³³	thəu ³³
THIN	cam ³⁵	zam ⁵¹	ʃəŋ ²¹	gi ⁵⁵	pə ⁵⁵

(8) NON-MRAN-NI

	Dulong		Nusu		Anong
	West	East	Central	South	
FAR	an ²¹ jom ⁵⁵	man ⁵³	we ³¹ a ³¹	we ⁵⁵	thi ³¹ jom ⁵⁵
NEAR	sep ⁵⁵	an ³¹ kha ⁵⁵	a ³¹ ju ⁵³	ju ⁵⁵	ʔi ³¹ dza ⁵³
HIGH	mjan ⁵³	xjan ⁵³	hmru ³¹	hmja ⁵⁵	hmru ⁵⁵
LOW	tui ⁵³	thi ⁵³	hujio ⁵³	hi ⁵⁵	hju ⁵⁵
BIG	tai ⁵³	ka ³¹ ten ⁵⁵	ʔi ⁵⁵ a ³¹	ʔi ⁵⁵	ʔi ³⁵
LITTLE	tci ⁵⁵ tcal ⁵³	ka ³¹ ne ⁷⁵⁵	a ³¹ ʔme ⁵³	tsi ⁵⁵	me ³⁵
LONG	mjan ⁵³	mjan ⁵³	xju ³¹	xja ⁵⁵	ka ³⁵
SHORT	tui ⁵³	thi ⁵³	a ³¹ dzū ⁵³	dzō ⁵⁵	dzō ³⁵
MANY	bwm ⁵³	bwm ⁵³ / ka ³¹ bw ⁵⁵	mja ⁵³	mia ⁵⁵	mia ³⁵
FEW	ni ⁷⁵⁵	ka ³¹ ne ⁷⁵⁵	thi ⁵⁵ tsui ³⁵ / ju ³⁵ jo ⁵⁵	jo ⁵⁵	ju ³¹
WIDE	an ³¹ pu ⁷⁵⁵ tai ⁵³	an ³¹ pu ⁷⁵⁵ tai ⁵³	fha ³⁵	xua ³³	fhe ³¹
NARROW	an ³¹ pu ⁷⁵⁵ tci ⁵³	an ³¹ pu ⁷⁵⁵ tchuj ⁵³	a ³¹ hua ⁵³ hā ³⁵	liā ⁵⁵	ʔliā ⁵⁵
DEEP	ju ³¹ na ⁷⁵⁵	ju ³¹ na ⁷⁵⁵	ʔmu ⁵⁵	tshō ⁵⁵	kuō ³¹
SHALLOW	ba ⁵³	ba ⁵³	a ³¹ ba ⁵⁵	bo ⁵⁵	ba ³⁵
HEAVY	a ³¹ li ⁵³	a ³¹ li ⁵³	li ⁵⁵ a ³¹	li ⁵⁵	li ³⁵
LIGHT	gæj ⁵⁵	gæj ⁵³	a ³¹ hua ⁵³ hā ³⁵	liā ⁵⁵	ʔliā ⁵⁵
THICK	tat ⁵⁵	that ⁵⁵	thu ³¹	thu ⁵⁵	thu ³¹
THIN	ba ⁵³	ba ⁵³	a ³¹ ba ⁵⁵	bo ⁵⁵	ba ³⁵

	Naxi		Jinghpaw	Thet	Bai	Tujia
	West	East				
FAR	khw ³³ kho ³³	ʔa ²¹ ʃa ³³	tsan ²¹	lō ⁵³ ʃe ³³ brō ³³	tui ³³	ʔu ¹³ yi ⁵⁵
NEAR	nv ³³	nuw ³³	ni ²¹	a ³³ se ³³ fa ³³	tce ³³	ʔu ¹³ dza ³³
HIGH	ʃua ²¹	ʃua ³³	tsō ²¹	sau ⁷²¹	ka ³⁵	ka ³³
LOW	xū ²¹	xv ³³	nem ²¹	nē ⁷²¹	pi ³³	ʔa ³³ di ³³
BIG	duw ²¹	dj ³³	kəpa ²¹	phrāū ³³	to ³¹	tchi ³³
LITTLE	tci ⁵⁵	tci ¹³	kətʃi ²¹	sei ⁷²¹ fa ³³ hou ⁷²¹	se ³¹	sa ³³
LONG	ʃə ²¹	ʃa ³³	gəlu ²¹	karo ⁵³	tso ³¹	ye ³⁵
SHORT	ndə ³³	də ³³	tōt ⁵⁵ /gədu ³³	tōū ³³	tshw ⁵⁵	dzə ¹³
MANY	bw ²¹	dzi ¹³	lo ⁷⁵⁵	pəri ³³	tci ⁴⁵	zi ³⁵
FEW	nw ³³	nw ³³	n ⁵⁵ lo ⁷⁵⁵	sai ⁷²¹ fa ³³	cou ³³	phu ³³
WIDE	pa ²¹	xuə ³³ /fa ³³	tam ²¹		tshu ⁵⁵	tshu ³³
NARROW	ma ²¹ pa ²¹	ma ²¹ xuə ³³	kjip ⁵⁵		mo ⁴²	ha ²¹ /ci ³³
DEEP	xo ⁵⁵	lo ³⁵	su ⁷²¹ (Tai)	sei ⁷²¹	ʃi ⁵⁵	ku ³³ du ³⁵
SHALLOW	mbe ³³ /dū ⁵⁵	bi ³³	taj ⁷²¹ (Tai)	tē ⁷²¹	tchi ³¹	so ²¹ so ⁵⁵
HEAVY	lu ³³	ʔu ³³	li ³³	a ²¹ nē ⁷²¹	tsv ³³	du ³⁵
LIGHT	ʔu ²¹	ʔu ²¹	tsan ³³	ra ³³ za ⁵³	tshə ⁵⁵	zu ¹³
THICK	lo ⁵⁵	la ¹³	tau ³³ tau ³³	thu ³³	ku ³³	ʔa ²¹ lo ²¹
THIN	mbe ³³	bi ³³	pha ³¹	pha ³³	po ⁵³	so ²¹ so ⁵⁵

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