

Measure Words in Tai: Their Syntactic Function, Word Order, and the Problem of Deletion

Zhang Gongjin

Among the unified standard speech of the Tai languages in Yunnan, there are two major dialects, Xishuangbanna Tai and Dehong Tai.¹ The syntactic features of measure words in both dialects are quite similar.

Measure words (MW) are one of the special characteristics in the languages of the Sino-Tibetan language family. In general, measure words can be divided into two types. One describes objects, and the other actions. The measure words describing objects can be further divided into two types. One type indicates length, capacity, and weight. The other type demonstrates the physical form of the objects. It is this latter type that represents a special characteristic of the Sino-Tibetan languages. This paper attempts to discuss the syntactic functions of measure words, their order in a noun phrase and in a sentence, and the possible conditions for deletion. The data used in this paper are based on the Xishuangbanna Tai dialect, particularly of the Jinhong area.

Functions

Semantically, measure words can denote objects individually or collectively. Examples of measure words denoting individual objects are: *tɔ¹* for animals; *phu³* for people; *kɔ⁴* or *tun³* for trees. As for collective items, examples are: *ku⁶* 'a pair of', *fɯŋ¹* or *mu⁵* 'a group of' (or, 'a flock or a herd of'). The syntactic functions of measure words in Tai can be categorized into the following types:

Substitution. Measure words can be used as substitutes for nouns if the situation is already understood. For example, *kɔ¹ nɯ⁶* [MW + this] 'this (tree)' can be used, without mentioning the tree, in the case where both the speaker and the listener are pointing at a particular tree. Similarly, *sam¹ bin³* [three + MW] 'three pieces (of paper)' is used when both the speaker and

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the listener are referring to the same papers; *noŕ suk³* [MW + ripe] 'the ripe one' when selecting, for example, mangoes; *to¹ bin¹* [MW + fly] 'the flying one' upon seeing a bird flying; *noŕ paŕ² nŕ¹* [MW + top] 'the one on the top' when the speaker and the listener are both aware that there are two books placed on top of each other; *tăŋ² noŕ²* (whole + MW) 'the whole (one)' is used when the entirety of the object is the focus.

In a sentence such as,

- (1) *mak⁹* *noŕ* *nŕ⁶* *pin¹* *noŕ* *to¹ xa³*
 fruit MW this be MW I
 This fruit is mine.

the second *noŕ*² (before a pronoun) occurs in place of the head noun *mak¹*. This kind of substitution between a measure word and its related noun also occurs in proverbs and riddles, for example:

- (2) *tsăp³* *tsu⁶* *luk⁴* *thuk¹* *tsu⁶* *pun¹*
 hold each MW hit each arrow
 Every shot hits the target.
- (3) *bău⁵* *ko¹* *ha⁵* *ko¹* *fun¹*
 not fear MW fear rain
bău⁵ *ko¹* *deŋ⁹* *tho⁵* *lum²* *ti¹*
 not fear sunlight shine wind hit
 Not to be afraid of wind, rain, nor sunshine

Connection. A measure word links its corresponding noun to a noun modifier, for example:

1. nouns and numeral ²

- (4) *pop⁴* *noŕ⁵* *nurŋ⁶*
 book MW one
 one book

² A measure word always precedes the number 'one'. In the case of the number 'two' or higher, the numeral precedes a measure word. Therefore, the order of 'two books' or 'three books' is [noun + numeral + MW]. Even though a measure word does not occur between a noun and a numeral in this latter case, it is still a connecting element between a noun and a numeral.

2. nouns and demonstratives

- (5) *kă¹dat¹* *bin³* *n⁶*
 paper MW this
 this piece of paper

3. nouns and adjectives

- (6) *hun¹taŋ²* *sin³* *hy⁶hyŋ²*
 road path MW glorious
 a glorious road (a road which is glorious)

4. nouns and verbs

- (7) *phă⁶mŋ²* *mu⁵* *jap¹sar³*
 citizen MW work
 a group of people (who are) working

5. nouns and phrases

a) verb-object construction:

- (8) *lō¹ŋon⁵* *to¹* *leŋ⁴* *ho²*
 child MW raise cow
 a child who tends cows

b) subject-predicate construction:

- (9) *tŕ⁵tsu²* *phu³* *tsă¹hai⁴*
 landlord MW ill will
 an evil landlord (a landlord who is evil)

c) verb-complement construction:

- (10) *xep³* *ku⁶* *sup³* *pu²*
 shoes pair wear worn out
 a pair of worn-out shoes (a pair of shoes which is worn-out)

d) compound sentence construction

- (11) *xva²* *to¹* *pi²* *kɔ⁴* *pi²* *tɛm⁵*
 water buffalo MW fat also fat short
kɔ⁴ *tɛm⁵*
 also short
 a short and fat water buffalo

e) serial verb construction

- (12) *kun*² *to*¹ *keu*⁵ *ja*⁵ *ʔor*⁵ *ho*²
 person MW cut grass feed cow
 a person who cuts grass and feeds cows

f) coordinate construction

- (13) *sv*³*jen*⁴ *phu*³ *ham*³ *tan*⁶ *sau*²*hej*²
 commune member MW urge s/he rest
 a commune member who urges him/her to take a rest

Distinction. The third function of measure words is to distinguish a compound from a phrase and a phrase from a sentence. This type of function is derived from the connection type above. Examples are:

- (14) *tsarj*⁴ *lorj*¹
 elephant big
 a big elephant

- (15) *tsarj*⁴ *to*¹ *lorj*¹
 elephant MW big
 an elephant which is big

- (16) *tsarj*⁴ *kin*¹ *fvj*²
 elephant eat hay
 An elephant eats hay.

- (17) *tsarj*⁴ *to*¹ *kin*¹ *fvj*²
 elephant MW eat hay
 an elephant which eats hay

Determining references. A measure word determines which noun is the intended head noun in a noun phrase. [Since the following discussion includes the Chinese version of the examples below, the Chinese translations are also given. This will also be the practice for later examples in a similar situation.—trans.]

- (18) *kun*² *ʔan*² *nuf*⁶ *sv*³ *xau*¹ *ko*⁴ *non*⁶
ren (*de*) *chuān* *yī* *bái* *ge* *nèi*
 person who wear shirt white MW that
nèi ge chuān bái yīfu de rén.
 that person who wears a white shirt

- (19) *kun²* *ʔǎn²* *nur⁶* *sv³* *xau¹* ***phun¹*** ***non⁶***
 rén (*de*) *chuān* *yī* *bái* *jiàn* *nèi*
 person who wear shirt white MW that
chuān nèi jiàn bái yīfu de rén.
 the person who wears that white shirt

- (20) *mr²* *kun²* *pǎi¹* *su⁴* *pop⁴* *sam¹* ***kp⁴***
 yǒu *rén* *qù* *mǎi* *shū* *sān* *ge*
 have person go buy book three MW
Yǒu sān ge rén qù mǎi shū.
 There are three people who bought books.

- (21) *mr²* *kun²* *pǎi¹* *su⁴* *pop⁴* *sam¹* ***nor⁵***
 yǒu *rén* *qù* *mǎi* *shū* *sān* *běn*
 have person go buy book three MW
Yǒu rén qù mǎi sān běn shū.
 There are people who bought three books.

In examples 18 and 19, which noun the demonstrative *nǎi⁶* 'that' refers to is determined by the occurrence of a measure word *kp⁴* or *phun¹*. The word *kp⁴* refers to *kun²* 'person' and *phun¹* to *sv³ xau¹* 'white shirt'. Similarly, in examples 20 and 21, *sam¹* refers to *kun²* 'people' or *pop⁴* 'book', depending on the occurrence of a measure word *kp⁴* or *nor⁵* respectively. The syntactic function of a measure word is based on the physical form of a noun. This type of syntactic function in Tai also occurs similarly in Chinese. In the first pair of examples, *ge* is used in 18 and *jiàn* in 19. In the second pair, *ge* and *běn* occur in 20 and 21, respectively. However, there is a difference between Tai and Chinese examples due to the differences in word order between the two languages. In example 18, *nèi ge* occurs before the verb *chuān* 'wear', while in example 19 *nèi jiàn* occurs after the verb. Also in examples 20 and 21, *sān ge rén* and *sān běn shū* are non-separable units. Unlike the Chinese examples, the order in both sets of the Tai examples remains the same. Therefore, the function of a measure word in determining which is the head noun is more crucial in Tai than in Chinese.

Forming words. A measure word can be combined with its corresponding noun to form a compound noun of the same meaning. Examples are: *piŋ¹* 'leech', which also has *tɔ¹ piŋ¹* 'leech'; *hr²* 'boat' and *lǎm² hr²* 'boat'. A similar function also occurs in Chinese, for example: *mǎpǐ* [horse/MW] 'horse', and *zhézhāng* [paper/MW] 'paper'. However, in Chinese the new compounds have slightly different meanings. They become collective nouns. In Tai, the meaning of a newly formed word remains the same and, therefore, can occur with a measure word and be followed by a modifier, for example:

(22)	<i>to¹piŋ¹</i>	<i>to¹</i>	<i>nuŋ⁶</i>
	leech	MW	one
	one leech		

(23)	<i>to¹piŋ¹</i>	<i>to¹</i>	<i>dǎm¹</i>
	leech	MW	black
	a black leech		

In Chinese, the usage similar to the above Tai examples is not possible: **yī pí mǎpǐ* [one/MW/horse]; or **bái zhāng zhézhāng* [white/MW/paper]. One further note on the distinctions between measure words in Tai and Chinese is that the reduplication form of some Chinese measure words renders the meaning 'each one' while in Tai this reduplication device is not used in measure words.

Ordering

The order of measure words can be discussed in two ways. One is the order of a measure word in a noun phrase (noun + modifiers). The other is the order in a sentence.

Besides substituting for a head noun, a measure word often occurs together with its head noun, but it cannot by itself occur as a noun without a referent. When a noun occurs with a measure word, other classes of words such as quantifiers or modifiers must also occur.³ The possible occurrences of modifiers such as demonstratives, adjectives, verbs, and various phrases have already been presented in the earlier examples. A noun phrase generally consists of a noun, measure word, numeral, and modifiers. When a measure word is substituted for the head noun in a noun phrase, the head noun can be deleted. The deletion of the head noun is possible since it already has either pragmatic or linguistic presupposition. Therefore, even though the form has been deleted, the existence of the head noun is still realized and the noun phrase can, by all means, still be expanded. What, then, is the position of a measure word in a noun phrase? This can be summed up in the following three points:

1. A measure word along with a numeral and other modifiers occurs after the head noun.

³ This is not to include the previous point as the fifth function of a measure word. The fifth function is the matter of morphology and is not related to modifiers and scopes.

2. A measure word precedes a numeral and a demonstrative in a phrase that is composed of numeral “1” and a simple modifier.⁴ However, in describing the quality of a noun, a measure word occurs after an adjective, possessive, or a pronoun, as well as a numeral greater than or equal to “2.” The following example demonstrates the occurrence of a measure word in the fifth position [noun + adjective + pronoun + numeral (two or more) + MW + demonstrative or numeral (one)]:

- (24) *tǎŋ⁵* *mǎi⁴* *loŋ¹* *to¹ xa³* *sɔŋ¹* *no⁵* *nǎn⁶*
 chair wood big I two MW that
 my two big wooden chairs

3. In a noun phrase that consists of both simple and compound modifiers (see footnote 4), a measure word can occur in two different orders:

a. In many cases, a measure word, together with a numeral, occurs after a modifier phrase and a demonstrative. The phrase connector (CNT) *ʔǎn²* is added before a modifier phrase. [In cases where equivalent translations are not sufficient, the English translations are highlighted to indicate the focus of the original sentences—trans.] Examples are:

- (25) *kun²* *ʔǎn²* *nǔŋ⁶* *sɿ³* *xau¹* *nǎn⁴* *sam¹* *kɔ⁴*
 person CNT wear shirt white that three MW
 those three people **who wear white shirts**

b. When the quantity of the head noun is the main focus, a measure word together with a numeral greater than or equal to “2” precedes a modifier phrase and a demonstrative.⁵ The word *ʔǎn²*, however, is optional. Notice the following example:

- (26) *kun²* *sam¹* *kɔ⁴* (*ʔǎn²*) *nur⁶* *sɿ³* *xau¹* *nǎn⁴*
 person three MW CNT wear shirt white that
those three people who wear white shirts

In a structure such as in the above example, the main focus is on ‘those three’. The word *nǎn⁶* is in fact inserted only to function together with *ʔǎn²* for the purpose of linking a modifier phrase to the head noun.⁶

⁴ What is called “simple” here refers to a single morpheme modifier. If a modifier is a phrase, then it is a compound modifier. All compound modifiers can modify a head noun by occurring after a phrase connector *ʔǎn²*. See the subsequent examples in this paper.

⁵ Under this condition, if a numeral is ‘one’, then delete the numeral.

⁶ This *nǎn* is somewhat similar to some usages of *dōu* in Chinese, for example:

Therefore, this *nǎn*⁶ is often deleted. All simple modifiers occur immediately after the head noun, and the order within a noun phrase remains unchanged, for example:

- (27) *tǎŋ*⁵ *mǎi*⁴ *loŋ*¹ *to¹xa³* *?ǎn*² *sǎk³kǎm²* *su*⁴
 chair wood big I CNT just buy
*ma*² *nǎn*⁶ *sɔŋ*¹ *no*⁵
 come that two MW
 my two big wooden chairs **which (I) just bought**

- (28) *tǎŋ*⁵ *mǎi*⁴ *loŋ*¹ *to¹xa³* *sɔŋ*¹ *no*⁵
 chair wood big I two MW
*?an*² *sǎk³kǎm²* *su*⁴ *ma*² *nǎn*⁶
 CNT just buy come that
 my **two** big wooden chairs **which (I) just bought**

The above examples clearly demonstrate the order of a measure word within a noun phrase. In a sentence, the order of a measure word is based on the grammatical function of a noun phrase (for example, subject noun, object noun, pivotal noun).⁷ [A pivotal noun is a noun that occurs as an object of the first clause while also functioning as a subject of the second clause—trans.] The conditions under which a measure word plus numeral can be separated from the head noun are the following:

1. When a noun phrase is an object of a sentence, there can be a complement, a place adverbial modifier, or a prepositional phrase occurring between a head noun and a measure word plus numeral, for example:

- (29) *sǔp*³ *xep*³ *pǔt*³ *ku*⁶ *nur*⁶
 wear shoe worn MW one
 (some one) wore a worn-out pair of shoes.
 (*pǔt*⁷ is a complement)

nánzi *sí* *yú* *huǒ* *dōu* *shù* *qiān* *rén*
 man die in fire all number thousand people
 The men who died numbered ten thousand.

(Biography of Hé-ling)

mǎ *lái* *shí* *cháng ān* *dōu* *shù* *bái* *pǐ*
 horse come eat Changan all number hundred MW
 The horses that came to feed in Changan numbered hundreds.

(Shíjì: Píng zhǔn shū)

⁷ A noun phrase can also be a predicate that contains a copula verb “to be”. However, such predicates generally do not have any influence on word order and therefore will not be discussed here.

- (30) *su⁴* *van⁵* *nr¹* *kat¹* *sam¹* *no⁵*
 buy bowl on market three MW
 (someone) bought three bowls from the market.
 (*nr¹ kat¹* is a place adverbial modifier)

- (31) *jim¹* *kă¹ dat¹* *nă³* *tan⁶* *ha³* *bin³*
 borrow paper from he five MW
 (someone) borrowed five pieces of paper from him.
 (*nă³ tan⁶* is a prepositional phrase)

2. When a noun phrase is the subject of a sentence, a predicate separates the head noun from a measure word plus numeral. Other modifiers must occur after the head noun, for example:

- (32) *luk⁴ hen²* *to¹ tsău³* *păi¹* *lau⁴ tur⁵* *sam¹* *ko⁴*
 student you go work three MW
 Three of your students went to work.

- (33) *mak¹ mor⁶* *sūk³* *lv¹* *ma²* *so¹* *no⁵*
 mango ripe yellow come two MW
 Two ripening mangoes

3. In cases where a phrase with the verb *mr²* 'have' or *ʔău¹* 'take hold of, want, grasp' occurs at the beginning of a sentence, the head noun also is separated from the measure word plus numeral by a predicate. Other noun modifiers remain after the head noun, for example:

- (34) *mr²* *kva²* *me⁶* *kin¹* *ja³*
 have water buffalo female eat grass
tf⁶ *pa⁵ ja³* *sam¹* *to¹*
 at meadow three MW
 There are three water buffaloes eating grass in the meadow.

- (35) *ʔău¹* *kă⁵* *no⁴* *ʔăn²* *săk³ kă²* *su⁴*
 take chicken small CNT just buy
ma² *năn⁶* *păi¹* *le⁴* *s⁵* *ha³* *to¹*
 come that go raise four five MW
 (Someone) will raise a few chickens which have just been bought.

However, there are three exceptions where a measure word plus numeral cannot be separated from the head noun.

1. When the focus is on the noun phrase with its demonstrative, for example:

(36) *su⁴ van⁵ sam¹ no⁵ n̄⁶ n¹ ka¹*
 buy bowl three MW this on market
 (Someone) bought **these three bowls** at the market.

(37) *ʔau¹ kǎi⁵ nɔi⁴ ha³ to¹ nǎn⁶ pǎi¹ leŋ⁴*
 take chicken small five MW that go raise
 (Someone) raised **those five chickens**.

2. When the emphasis is on the quantity of the head noun, for example:

(38) *mǎi⁴ jǎi⁵ sen¹ lǎm² kɔ⁴ pǎi⁴ lum⁴ sǎm⁴ lɛ⁶*
shù dà shí wàn kè yě guā dào wán PAR
 tree big thousand MW also blow fall all PAR
Shí wàn kè dà shù yě chuán dōu guā dào le
 Ten thousand big trees were all blown down.

In example 38 above, Tai and Chinese employ different devices for indicating emphasis in a sentence. Word order is used in Tai, while an emphatic marker expressing mood is used in Chinese.

3. When there is another noun or a pronoun that would have had the same measure word which is used for the head noun, for example:

(39) *mi² xu² sɔn¹ sam¹ kɔ⁴ ma² sɔn¹ hǎu²*
 have teacher three MW come teach we
 There are three teachers who came to teach us.

(40) *mɛu² to¹ nuŋ⁶ pǎi¹ dǎm¹ pa¹*
 cat MW one go grasp fish
 A cat went to catch fish.
 [dǎm originally means 'submerge'; here it means 'grasp']

In examples 39 and 40, the same measure word could refer to either of two nouns depending on its position. A measure word by itself cannot define the scope of reference. Therefore, the change in word order is necessary to pinpoint which noun a measure word is intended for. If the two nouns in a sentence require different measure words, then the word order is of no concern. The above examples have clearly demonstrated this syntactic function.⁸ We can see that there is a close relationship between syntactic

⁸ In example 39, both 'teacher' and 'we' could have the same measure word *kɔ⁴* as in *sam¹ kɔ⁴* 'three people'. If *sam¹ kɔ⁴* is placed at the end of the sentence, as in *mi² xu² sɔn¹ ma² sɔn¹ hǎu² sam¹ kɔ⁴*, 'there are teacher(s) who come to teach **three of us**', the meaning is no longer the same. Similarly, in the second example if

function and word order of a measure word and that a measure word together with its order determines its referent.

Deletion and reversal

The conditions under which a measure word can be deleted or reversed are the following:

1. In general, a measure word that occurs between a noun and a quantifier cannot be deleted. Exceptions are in the following three examples:

- (41) *teu*³ *taŋ*² *nur*⁶ *su*⁵ *soŋ*¹
 walk way one manage two
*kan*¹ *ba*⁵ *nur*⁶ *tha*⁴ *soŋ*¹
 works shoulder one lift two
*kan*² *bău*⁵ *dăŋ*³ *to*¹ *nur*⁶
 pole not able to MW one
*kin*¹ *soŋ*¹ *van*⁵ *nŋ*⁶ *dăŋ*³
 eat two bowl this able to

A person walking along on one path, even though he cannot carry two poles, can eat two bowls of rice. (proverb)

- (42) *sŋ*⁵ *ta*¹ *ha*³ *hu*¹ *hok*³ *xa*³
 four eye five ear six leg
*teu*² *păi*¹ *la*³ *mu*² *pa*¹ *va*¹ *sop*³
 walk go open hand in the manner of mouth
*xun*² *hŋ*⁴ *va*⁶ *kva*¹ *kva*¹ [*kün*² *tha*¹ *na*²]
 again call speak imitation sounds (person plough rice field)
 What has four eyes, five ears, six legs, and walks with open
 hands and makes calling sounds? [a farmer] (riddle)

- (43) *tsaŋ*⁴ *hŋ*⁴ *ma*⁴ *hŋ*⁴
 elephant hundred horse hundred
*vo*² *xva*² *kŋ*⁴ *tsv*⁴ *dăŋ*¹
 cow buffalo then type which
*hŋ*⁴ *hŋ*⁴
 hundred hundred

One hundred elephants, one hundred horses, cows and water buffaloes also one hundred each... (story)

In the above three examples, we see eleven cases where measure words are not present when they should have occurred. The eleven examples

the order changed to *meu*² *păi*¹ *dăŋ*¹ *pa*¹ *to*¹ *nur*⁶, the meaning is also changed to 'cat(s) went to catch **one** fish'.

are: *tarj² nuŋf⁶, sɔŋ¹ kan¹, ba⁵ nuŋ , sɔŋ¹ kan², sɔŋ¹ van⁵, s⁵ ta¹, ha³ hu¹, hok³ xa¹, tsarj⁴ hɔl⁴, ma⁴ hɔl⁴, hɔl⁴ hɔl⁴ [hɔl⁴ hɔl⁴ is from vo² hɔl⁴ to¹, xvai² hɔl⁴ to¹]. We can see that a measure word can be deleted under certain conditions. In oral folk literature when a measure word is used to express the quantity of a noun, it is often deleted. Among the above three examples, examples 41 and 42, which are a proverb and a riddle, respectively, are rhymes. Example 43 is day-to-day speech which is used in a narrative story. Who knows whether all three examples represent abbreviated style of usages or special features left over from the old Tai language. Both explanations seem possible.*

2. The occurrence of a measure word that has one of the two syntactic functions connection or distinction depends pretty much upon the context. In some cases, a measure word can be omitted; in others, it can be replaced with a phrase connector *?ǎn²* or *heŋj⁵*. Whether the measure word is deleted or replaced, the basic meaning of a sentence does not change. However, a sentence does lose certain nuances in meaning and rhetoric, namely:

a. The occurrence of a measure word indicates how many items there are in a head noun. For example, a measure word (without any numeral) indicates that there is one item. When *ku⁶* 'a pair of' occurs, it indicates two items while *mu⁵* or *furj¹* 'a group of' indicates several items. Without a measure word, the quantity of a head noun is not clear.

b. A measure word identifies the physical form of a noun, for example, *sin³* for *tarj²* 'road' demonstrates "thin and long" image, or *no⁵* for *mak¹ morj⁶* 'mango' expresses "roundedness." Measure words conceptually classify nouns into different categories. Therefore, without a measure word, the language loses its colorful description.

If someone asks, "Whose mango is this?", the answer is, "(It's) my mango." There are three ways to express this answer in Tai:

- (44) *mak¹ morj⁶ to¹ xa³*
 mango I
 my mango

- (45) *mak¹ morj⁶ heŋj⁵ to¹ xa³*
 mango belong to I
 a mango of mine

- (46) *mak¹ morj⁶ no⁵ to¹ xa³*
 mango MW I
 my mango

These three answers all have the same basic meaning: "the mango belongs to me." However, there are differences in the lexicon usages among the three. The measure word *noŋ²* occurs only in example 46. We can see that this *noŋ²* is optional since it is deleted in example 44 and is replaced by *heŋ²* in example 45. The basic meaning in all three answers is, however, not affected by these differences in lexicon. In that case, are the three answers any different from each other? Of course they are. Example 44 indicates that "the mango" belongs to "I." This answer is sufficient as a reply to the question "Whose mango is this?" Example 45, on the other hand, adds *heŋ²* to indicate possessive relation and thus put the emphasis of a sentence on "what I have." Example 46 uses a measure word *noŋ²*, which, although it does not indicate the possessive meaning, does add the physical description of the object "mango" and also clearly indicates that "There is one mango." These two meanings of quantity and physical form of a head noun do not exist in examples 44 and 45. Here we can see that when a measure word functions as a connector, it does not just simply link all modifiers to its head noun, but it also expresses a definite quantity and the physical form of the head noun. When a measure word is deleted or replaced, these meanings are lost.

The situation is similar in the case of a measure word that has a distinction function. The word *to¹* in *tsaŋ⁴ to¹ loŋ¹* clarifies the modifying relation in the *tsaŋ⁴ loŋ¹* phrase. However, a measure word in this usage is optional and a phrase connector *ʔǎn²* can also be used instead. The word *ʔǎn²* in *tsaŋ⁴ ʔǎn² loŋ¹* 'an elephant which is big' and *tsaŋ⁴ ʔǎn² kin¹ frŋ²* 'an elephant which eats hay' is similar to the usage of *to¹*, which indicates that *loŋ¹* and *kin¹ frŋ²* modify *tsaŋ⁴*. Although the syntactic function can be similar, only a measure word carries nuances in meaning. When *ʔǎn²* replaces *to¹*, the quantity of *tsaŋ⁴* is not clear, and the physical form description of the head noun *tsaŋ⁴* is also lost.

3. When there are two modifier phrases, two connectors are generally needed to link the head noun to its modifiers. Of these two connectors, a measure word often occurs first, immediately after the head noun, while a phrase connector occurs later, for example:

- (47) *sv³* *phun¹* *vǎn²va²* *to¹xa³* *nuŋ⁶* *ʔǎn²*
 shirt MW yesterday I wear CNT
hun⁵haŋ⁶ *yaŋ⁵mǎŋ⁵* *nǎn⁶*
 style new that
 that new style shirt that I wore yesterday

When there is only one modifier phrase connected to the head noun, a measure word is optional, and *ʔǎn²* can also be used instead. However, in a noun phrase that has two modifier phrases, a measure word is generally used in order to avoid using *ʔǎn²* twice. A measure word is placed before and *ʔǎn²*

is placed after the modifier phrase. This fixed order shows that, besides the connective function, a measure word has a close relationship to the head noun. This is essentially because a measure word has concrete and specific meaning. It also expresses categories, physical form, and the quantity of a noun at the same time.

4. Besides the occurrences such as *to¹piŋ¹*, *lām²hə²* (which is a matter of morphology), there are two more situations in which a measure word can precede a head noun. One type is when a measure word together with a numeral expresses a cooperative effort of an event, for example:

- (48) *soŋ¹ kɔ⁴ pɔ⁶ luk⁴ peŋ¹ xǎu³nũm²*
 two MW father child share noodle
 The two (of them), father and child, shared the noodles.

The other condition is in verse when rhyming is needed, such as:

- (49) *kǎu³ van⁵ xǎu³ kɔ⁴ da¹ nɔ² sip³ van⁵ ja¹*
 nine bowl rice also in vain PAR ten bowl medicine
kɔ⁴ da¹ nɔ² sip³ mɔ¹ja¹ bǎu⁵
 also in vain PAR ten doctor not
?ǎu¹ pɔ⁶ tsə² dǎ²
 want/take father male able to
 Neither nine bowls of rice nor ten bowls of medicine are any
 help, even ten doctors could not save my father.

Example 49 not only shows that a measure word and a numeral such as in 'nine bowls (of) rice' and 'ten bowls (of) medicine' can all move to the front of the head noun, but it can also be deleted such as in 'ten doctors'. This kind of phenomenon is rather a special case. In verse, sometimes just for the sake of rhyming, not only a measure word and a numeral are moved to the front of a noun, but also an empty word can be added in between a measure word and a numeral, for example:

- (50) *ti³dǎŋ⁵ ban³ luk⁴ nǎn⁶ m² kǎu³ sip³ kǎu³*
 about village MW that have nine ten nine
tɛ⁴ lǎŋ¹ hvn² vǎn² na²
 MW house a story is going around that
 It has been said that there are ninety-nine houses in that
 village. (*tɛ⁴* here is an additional syllable needed in verse.)

In summary, the usages of measure words are diverse and complicated. The four conditions for deletions and reversals as described above only demonstrate some important general aspects of the rules.

Editors' Note on Transcription

The Lue dialect of Sipsongpanna shows vowel length distinction between short /ǎ/ and long /a/ only. In a few words, where the vowel is followed by a glottal stop, the vowel is shortened. For example:

*pě*¹ 'to be wet' vs. *pe*¹ 'to wind thread'

This particular example can be explained by comparing the form to its Siamese cognate *piak*. The *ia* diphthong becomes the monothong *e*, and the final *-k* becomes a glottal stop.

As for tones, there are six on smooth syllables, which are divided along the lines of proto- voiceless and voiced initial consonants, as follows:

*Vl 1—high level 3—mid-rising 5—low, slight rise

*VD 2—falling 4—mid-level 6—low, slight fall

Both tones 5 and 6 have glottal constriction. The tones of checked syllables are 1 (long vowel) and 2 (short vowel) in the *VL category and 5 in the *VD category.

Part IV: Linguistics and Literature
