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

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Among the unified standard speech of the Tai languages in Yunnan, there are two major dialects, Xishuangbanna Tai and Dehong Tai. 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: to 1 for animals; phu 2 for people; ka 4 or tu 3 for trees. As for collective items, examples are: ku 6 'a pair of', fur 1 or mu 5 '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, kp 1 n 6 [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, sam 1 bin 3 [three + MW] 'three pieces (of paper)' is used when both the speaker and

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1 Portions of this paper were delivered at the Association for Asian Studies Annual Meeting in Chicago, March 1986. Ngampit Jagacinski translated this paper from the original Chinese.
the listener are referring to the same papers; nor⁶ suk³ [MW + ripe] 'the ripe one' when selecting, for example, mangoes; to¹ bin¹ [MW + fly] 'the flying one' upon seeing a bird flying; nor⁶ par² nr¹ [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; târ² nor⁶ (whole + MW) 'the whole (one)’ is used when the entirety of the object is the focus.

In a sentence such as,

(1) mak⁹ nor⁶ ni⁶ pin¹ nor⁶ to¹ xa³
fruit MW this be MW I
This fruit is mine.

the second nor⁶ (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) tsâp³ tsu⁶ luk⁴ thuk¹ tsu⁶ pum¹
hold each MW hit each arrow
Every shot hits the target.

(3) bâru⁵ ko¹ ha⁵ ko¹ fun¹
not fear MW fear rain
bâru⁵ ko¹ del⁶ thô³ 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 nor⁶ nuw⁶
book MW one
one book

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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) kā¹ dat¹ bin³ nī
paper MW this
this piece of paper

3. nouns and adjectives

(6) hun¹ tan¹ sin¹ hvr³ hvr³
road path MW glorious
glorious road (a road which is glorious)

4. nouns and verbs

(7) phā³ mvr³ mu³ jap¹ sar¹
citizen MW work
a group of people (who are) working

5. nouns and phrases

a) verb-object construction:

(8) lō¹ ton⁵ to¹ ler⁴ ho²
child MW raise cow
a child who tends cows

b) subject-predicate construction:

(9) tr² tsu² phu³ tsā³ hai⁶
landlord MW ill will
evil landlord (a landlord who is evil)

c) verb-complement construction:

(10) xep³ ku¹ sup³ put³
shoes pair wear worn out
a pair of worn-out shoes (a pair of shoes which is worn-out)

d) compound sentence construction

(11) xvaî² to¹ pr² kv⁴ pr² tem⁵
water buffalo MW fat also fat short
kv⁴ tem⁵
also short
a short and fat water buffalo

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e) serial verb construction

(12) \( k\text{\text{u}}n^2\) \( t\text{o}^1\) \( k\text{e}u^5\) \( j\text{a}^\ddagger\) \( ?o^n^4\) \( h\text{\text{o}}^3\)
    person     MW     cut     grass     feed     cow
    a person who cuts grass and feeds cows

f) coordinate construction

(13) \( s\text{\text{r}}^3 j\text{e}n^4\) \( p\text{hu}^3\) \( h\text{\text{a}m}^3\) \( t\text{a}n^6\) \( s\text{\text{a}}u^2 h\text{\text{e}r}^2\)
    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) \( t\text{s}a\text{\text{n}}^4\) \( l\text{o}n^1\)
    elephant     big
    a big elephant

(15) \( t\text{s}a\text{\text{n}}^4\) \( t\text{o}^1\) \( l\text{o}n^1\)
    elephant     MW     big
    an elephant which is big

(16) \( t\text{s}a\text{\text{n}}^4\) \( k\text{i}n^1\) \( f\text{\text{y\text{e}}}^2\)
    elephant     eat     hay
    An elephant eats hay.

(17) \( t\text{s}a\text{\text{n}}^4\) \( t\text{o}^1\) \( k\text{i}n^1\) \( f\text{\text{y\text{e}}}^2\)
    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) \( k\text{\text{u}}n^2\) \( ?\text{\text{\text{a}}}n^2\) \( n\text{\text{u}r}^6\) \( s\text{\text{r}}^3\) \( x\text{\text{a}u}^1\) \( k\text{o}^4\) \( n\text{\text{u}n}^6\)
    rén     (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 ?ān² nur³ sv³ xau¹ phun¹ nor⁶ rēn (de) chuān yī bái jiàn nēi

person who wear shirt white MW that

chuān nēi jiàn bái yīfu de rēn.

the person who wears that white shirt

(20) mî² kun² pāi² sw³ pop⁴ sam¹ kû⁴ yōu rēn qù māi shū sān ge

have person go buy book three MW

Yōu sān ge rēn qù māi shū.

There are three people who bought books.

(21) mî² kun² pāi² sw³ pop⁴ sam¹ noî⁵ yōu rēn qù māi shū sān bēn

have person go buy book three MW

Yōu rēn qù māi sān bēn shū.

There are people who bought three books.

In examples 18 and 19, which noun the demonstrative nāf⁶ 'that' refers to is determined by the occurrence of a measure word kû⁴ or phun¹. The word kû⁴ 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 kû⁴ or nor⁶ 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 bēn 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, nēi ge occurs before the verb chuān 'wear', while in example 19 nēi jiàn occurs after the verb. Also in examples 20 and 21, sān ge rēn and sān bēn 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: piŋ³ 'leech', which also has toŋ³ piŋ³ 'leech'; hr² 'boat' and lām² hr² 'boat'. A similar function also occurs in Chinese, for example: māŋ³ [horse/MW] 'horse', and zhe⁴zhā⁴ [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) \textit{to\textsuperscript{l} pir\textsuperscript{l}} leech \quad \textit{to\textsuperscript{l} nur\textsuperscript{t}} MW one

one leech

(23) \textit{to\textsuperscript{l} pir\textsuperscript{l}} leech \quad \textit{to\textsuperscript{l} dām\textsuperscript{l}} MW black

a black leech

In Chinese, the usage similar to the above Tai examples is not possible: *yi' pi' māpī [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)]:

\[(24)\] t\(\ddot{a}\)\(\ddot{a}\) m\(\ddot{a}\)\(\ddot{a}\) l\(\ddot{o}\)\(\ddot{a}\) t\(\ddot{o}\)\(\ddot{x}\)\(\ddot{a}\) s\(\ddot{o}\)\(\ddot{a}\) n\(\ddot{o}\)\(\ddot{n}\)\(\ddot{n}\)

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) \(\ddot{a}\)\(\ddot{a}\) 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:

\[(25)\] k\(\ddot{u}\)\(\ddot{u}\) \(\ddot{a}\)\(\ddot{a}\) n\(\ddot{u}\)\(\ddot{u}\) s\(\ddot{v}\)\(\ddot{v}\) x\(\ddot{u}\)\(\ddot{e}\) n\(\ddot{a}\)\(\ddot{n}\) s\(\ddot{m}\) k\(\ddot{o}\)

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 \(\ddot{a}\)\(\ddot{a}\), however is optional. Notice the following example:

\[(26)\] k\(\ddot{u}\)\(\ddot{u}\) s\(\ddot{m}\) k\(\ddot{o}\) (\(\ddot{a}\)\(\ddot{a}\)) n\(\ddot{u}\)\(\ddot{u}\) s\(\ddot{v}\)\(\ddot{v}\) x\(\ddot{u}\)\(\ddot{e}\) n\(\ddot{a}\)\(\ddot{n}\)

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 n\(\ddot{a}\)\(\ddot{n}\) is in fact inserted only to function together with \(\ddot{a}\)\(\ddot{a}\) 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 \(\ddot{a}\)\(\ddot{a}\). See the subsequent examples in this paper.

\(^5\) Under this condition, if a numeral is 'one', then delete the numeral.

\(^6\) This n\(\ddot{a}\)\(\ddot{n}\) is somewhat similar to some usages of d\(\ddot{o}\)\(\ddot{u}\) in Chinese, for example:
Therefore, this nān⁶ is often deleted. All simple modifiers occur immediately after the head noun, and the order within a noun phrase remains unchanged, for example:

(27) tāŋ⁵ mǎ¹⁴ lōŋ¹ to¹ xa³ tān³ sāk³ kām² su¹⁴
chair wood big I CNT just buy

ma² nān⁶ sōŋ¹ noṭ⁵
come that two MW

my two big wooden chairs which (I) just bought

(28) tāŋ⁵ mǎ¹⁴ lōŋ¹ to¹ xa³ sōŋ¹ noṭ⁵
chair wood big I two MW

tān³ sāk³ kām² su¹⁴ ma² nān⁶
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) sūp³ xēp³ pūt⁵ ku¹ nuřf⁶
wear shoe worn MW one

(some one) wore a worn-out pair of shoes.

(pūt⁵ is a complement)

náŋzi sì yú huǒ dōu shù qiān rén
man die in fire all number thousand people

The men who died numbered ten thousand.

(Biography of Hé-líng)

mā lái shí chǎng ān dōu shù bāi pǐ
horse come eat Changan all number hundred MW

The horses that came to feed in Changan numbered hundreds.

(Shíjì: Píng zhūn 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) su¹ van⁵ nr¹ kat¹ sam¹ nor²  
buy bowl on market three MW  
(someone) bought three bowls from the market.  
(nr¹ kat¹ is a place adverbal modifier)

(31) jim¹ kǎ¹ dat¹ nǎŋ³ tan⁶ ha³ bin³  
borrow paper from he five MW  
(someone) borrowed five pieces of paper from him.  
(nǎŋ³ 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 tsāu³ pāi¹ lau⁴ tuŋ⁵ sam¹ ko⁴  
student you go work three MW  
Three of your students went to work.

(33) mak¹ mof⁶ sūk³ lynn¹ ma² sōŋ¹ nor²  
mango ripe yellow come two MW  
Two ripening mangoes

3. In cases where a phrase with the verb m̀² 'have' or ?au¹ '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) m̀² kwa⁵ me⁶ kin¹ ja³  
have water buffalo female eat grass  
ti⁴ pā⁵ ja³ sam¹ to¹  
at meadow three MW  
There are three water buffaloes eating grass in the meadow.

(35) ?au⁴ kār² nor² ?ān² sāk³ kām² su⁴  
take chicken small CNT just buy  
ma² nāŋ⁶ pāi¹ len⁴ si⁵ 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:

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(36) su4 van5 sam1 no1 ni5 m1 kat1
     buy bowl three MW this on market
     (Someone) bought these three bowls at the market.

(37) ?au1 kai5 no1 ha3 to1 na1 p1 le1
     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) malt jai2 sen1 lam2 ko4 pat4 lum4 sam4 le6
     shu1 da4 shi1 wan1 ke1 ye1 gua1 dao4 wan1 PAR
     tree big thousand MW also blow fall all PAR
     Shi1 wan1 ke1 da4 shu1 ye1 chu1nan1 dou1 gua1 dao4 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 xu2son1 sam1 ko4 ma2 son1 hau2
     have teacher three MW come teach we
     There are three teachers who came to teach us.

(40) meu2 to1 nurf6 p1 dam1 pa1
     cat MW one go grasp fish
     A cat went to catch fish.

 [dam 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. We can see that there is a close relationship between syntactic

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8 In example 39, both 'teacher' and 'we' could have the same measure word ko4 as in sam1 ko4 'three people'. If sam1 ko4 is placed at the end of the sentence, as in mi2 xu2son1 ma2 son1 hau2 sam1 ko4, '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)  

\begin{align*}
\text{teu}^3 & \quad \text{tar}^2 & \quad \text{nur}^6 & \quad \text{su}^5 & \quad \text{so}^1 \\
\text{walk} & \quad \text{way} & \quad \text{one} & \quad \text{manage} & \quad \text{two} \\
\text{kan}^1 & \quad \text{ba}^3 & \quad \text{nur}^6 & \quad \text{thai}^8 & \quad \text{so}^1 \\
\text{works} & \quad \text{shoulder} & \quad \text{one} & \quad \text{lift} & \quad \text{two} \\
\text{kan}^2 & \quad \text{bau}^5 & \quad \text{dai}^3 & \quad \text{to}^1 & \quad \text{nur}^6 \\
pole & \quad \text{not} & \quad \text{able} & \quad \text{MW} & \quad \text{one} \\
\text{kin}^1 & \quad \text{so}^1 & \quad \text{van}^5 & \quad \text{ni}^6 & \quad \text{dai}^3 \\
\text{cat} & \quad \text{two} & \quad \text{bowl} & \quad \text{this} & \quad \text{able} & \quad \text{to}
\end{align*}

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

(42)  

\begin{align*}
\text{si}^6 & \quad \text{ta}^1 & \quad \text{ha}^3 & \quad \text{hu}^1 & \quad \text{hok}^3 & \quad \text{xa}^3 \\
four & \quad \text{eye} & \quad \text{five} & \quad \text{ear} & \quad \text{six} & \quad \text{leg} \\
\text{teu}^2 & \quad \text{pai}^3 & \quad \text{ta}^3 & \quad \text{mu}^2 & \quad \text{pa}^1 & \quad \text{va}^1 & \quad \text{sop}^3 \\
\text{walk} & \quad \text{go} & \quad \text{open} & \quad \text{hand} & \quad \text{in the manner of} & \quad \text{mouth} \\
\text{xu}^2 & \quad \text{hor}^6 & \quad \text{va}^2 & \quad \text{kva}^1 & \quad \text{kva}^1 & \quad [\text{kum}^2 & \quad \text{thai}^1 & \quad \text{na}^2] \\
\text{again} & \quad \text{call} & \quad \text{speak} & \quad \text{imitation sounds} & \quad \text{(person plough rice field)} \\
\text{What has four eyes, five ears, six legs, and walks with open} & \quad \text{hands and makes calling sounds?} & \quad \text{[a farmer] (riddle)}
\end{align*}

(43)  

\begin{align*}
\text{tsa}^4 & \quad \text{hdo}^4 & \quad \text{ma}^4 & \quad \text{hdo}^4 \\
elephant & \quad \text{hundred} & \quad \text{horse} & \quad \text{hundred} \\
\text{vo}^2 & \quad \text{xva}^2 & \quad \text{ka}^4 & \quad \text{tsa}^4 & \quad \text{dai}^3 \\
cow & \quad \text{buffalo} & \quad \text{then} & \quad \text{type} & \quad \text{which} \\
\text{hdo}^4 & \quad \text{hdo}^4 \\
hundred & \quad \text{hundred} \\
\text{One hundred elephants, one hundred horses, cows and water} & \quad \text{buffaloes also one hundred each...} & \quad \text{(story)}
\end{align*}

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\textsuperscript{2} p\textsuperscript{1} d\textsuperscript{1} ma\textsuperscript{1} pa\textsuperscript{1} to\textsuperscript{1} nur\textsuperscript{6}, the meaning is also changed to 'cat(s) went to catch one fish'.

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are: tan⁵ nump⁶, sor⁷ kan¹, ba⁵ nump⁶, sor⁷ kan², sor⁷ van⁵, si⁶ ta¹, ha³ hu¹, hok³ xa¹, tsar⁷ ho¹, ma⁴ ho¹, ho¹ ho¹ [ho¹ ho¹ is from vo² ho¹ to¹, xvai² ho¹ 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 ?ai² or hej⁷. 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 fun⁷ '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, sin⁷ for tan⁵ 'road' demonstrates “thin and long” image, or nor⁷ for mak¹ mor⁶ '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 mor⁶ to¹ xa³
   mango       I
   my mango

\[(45)\]  mak¹ mor⁶ hej⁵ to¹ xa³
   mango       belong to   I
   a mango of mine

\[(46)\]  mak¹ mor⁶ nor⁵ to¹ xa³
   mango       MW       I
   my mango

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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 nor\(^5\) occurs only in example 46. We can see that this nor\(^5\) is optional since it is deleted in example 44 and is replaced by hef\(^5\) 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 hef\(^5\) to indicate possessive relation and thus put the emphasis of a sentence on "what I have." Example 46 uses a measure word nor\(^5\), 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 to\(^1\) in tsaf\(^4\) to\(^1\) log\(^j\) clarifies the modifying relation in the tsaf\(^4\) log\(^j\) phrase. However, a measure word in this usage is optional and a phrase connector ?an\(^2\) can also be used instead. The word ?an\(^2\) in tsaf\(^4\) ?an\(^2\) log\(^j\) 'an elephant which is big' and tsaf\(^4\) ?an\(^2\) kin\(^1\) fn\(^j\) 'an elephant which eats hay' is similar to the usage of to\(^1\), which indicates that log\(^j\) and kin\(^1\) fn\(^j\) modify tsaf\(^4\). Although the syntactic function can be similar, only a measure word carries nuances in meaning. When ?an\(^2\) replaces to\(^1\), the quantity of tsaf\(^4\) is not clear, and the physical form description of the head noun tsaf\(^4\) 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:

\[
\begin{align*}
(47) & \text{syr}^3 \quad \text{phun}^1 \quad \text{v\text{\'}an}^2 \text{va}^2 \quad \text{to}^3 \text{xa}^3 \quad \text{nuf}^6 \quad ?\text{an}^2 \\
\text{shirt} & \text{MW} \quad \text{yesterday} & \text{I} & \text{wear} & \text{CNT} \\
\text{hunr}^2 \text{harf}^6 & \text{yarf}^6 \text{m\text{\'}ar}^6 \quad \text{n\text{\'}ar}^6 \\
\text{style} & \text{new} & \text{that} & \\
\text{that} & \text{new} & \text{style} & \text{shirt} & \text{that} & \text{I} & \text{wore} & \text{yesterday}
\end{align*}
\]

When there is only one modifier phrase connected to the head noun, a measure word is optional, and ?an\(^2\) 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 ?an\(^2\) twice. A measure word is placed before and ?an\(^2\)
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 to1 p1, la2 h2 (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:

\[(48)\] sod\(^1\) k\(a\)\(^4\) po\(^6\) luk\(^4\) per\(^1\) x\(\dot{a}\)u\(^3\) n\(\ddot{u}\)m\(^2\) \\
  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:

\[(49)\] k\(\ddot{a}\)u\(^3\) van\(^5\) x\(\dot{a}\)u\(^3\) k\(a\)\(^4\) da\(^\ddot{a}\) n\(\ddot{o}\) sip\(^3\) van\(^5\) ja\(^1\) \\
nine bowl rice also in vain PAR ten bowl medicine \\
k\(a\)\(^4\) da\(^\ddot{a}\) n\(\ddot{o}\) sip\(^3\) m\(\ddot{o}\)ja\(^1\) b\(\ddot{a}\)u\(^5\) \\
also in vain PAR ten doctor not \\
?\(\ddot{a}\)u\(^1\) po\(^6\) t\(\ddot{a}\)i\(^2\) d\(\ddot{a}\)\(^\ddot{a}\) \\
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:

\[(50)\] tid\(\ddot{a}\)n\(\ddot{s}\) ban\(^3\) luk\(^4\) n\(\ddot{a}\)n\(^6\) m\(\ddot{l}\) k\(\ddot{a}\)u\(^3\) sip\(^3\) k\(\ddot{a}\)u\(^3\) \\
about village MW that have nine ten nine \\
ti\(\ddot{e}\) l\(\ddot{a}\)n\(^1\) h\(\ddot{a}\)n\(^2\) v\(\ddot{a}\)n\(^2\) na\(^2\) \\
MW house a story is going around that 

It has been said that there are ninety-nine houses in that village. (ti\(\ddot{e}\) 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 /ä/ and long /a/ only. In a few words, where the vowel is followed by a glottal stop, the vowel is shortened. For example:

pe^3 & '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