

Background

- Shan is a Southwestern Tai language spoken in Myanmar and surrounding countries by approximately 3 million people (Lewis & Fennig 2016).
- Classifier languages often lack obligatory plural morphology on nouns (as noted by Greenberg 1972; Chierchia 1998; a.o.), as in (1)-(2).

- (1) mǎa nuŋ/sǎam tǔ (2) nām nuŋ/sǎam kók
 dog one/three CL.ANIMAL water one/three cup
 ‘one/three dog(s)’ ‘one/three cup(s) of water’

- Many of these languages have a lexical plural morpheme, such as Mandarin (e.g., Cheng & Sybesma 1999, Bošković & Hsieh 2012), Japanese (e.g., Ueda & Haraguchi 2008), and Korean (e.g., Lee 1992).
- Classifiers must appear with numerals and some quantifiers and can appear with demonstratives and modifiers like adjectives and relative clauses:

- (3) mǎa tǔ jǎu sǎam tǔ tsɿ nǎj
 dog CLF.A big three CLF.A PL this
 ‘these three big dogs.’

The Puzzle

Shan is a number neutral language, but has plural morpheme: *tsɿ*.

- QUESTIONS: 1. What is *tsɿ* in (3)?
 2. Why does it appear in a similar distribution to classifiers (1) and measure terms (2)?

Numeral Classifier

- (4) NOUN NUM _
- | | | |
|------------------|-----------------------|-----------------------|
| a. CLASSIFIER | b. PLURAL | c. MEASURE |
| màak.khǒ sǒŋ hǒj | màak.khǒ sǒŋ tsɿ | màak.khǒ sǒŋ kǒŋ |
| jujube two CLF | jujube two PL | jujube two pile |
| ‘two jujube’ | ‘two kinds of jujube’ | ‘two piles of jujube’ |

- For Armenian, Borer (2005) claimed that the lexical plural morpheme is in the same functional phrase as the classifier.
- Kim & Melchin (2018) argued that Borer’s (2005) analysis cannot explain languages like Japanese and Korean where the plural appears with a numeral and classifier.
- Jenks (2011) described the Thai (Southwestern Tai) plural morpheme as a measure word with different properties than the classifier: measure phrases like *kilogram* cannot appear in numberless constructions.
- Simpson (2005) argued that word order in Thai nouns stems from leftward movement of the NP and other elements, as in (5).

- (5) [[NP_i Num CL t_i]_k Dem t_k]

Data

- The plural morpheme *tsɿ*, classifiers, and measure terms can all appear with a demonstrative, as in (6), or with numerals and relative clauses, as summarized in Table 1.
- Measure terms that refer to containers pattern like *tsɿ*. Measure terms that do not refer to an object—like *kilogram*—can appear with a numeral, but are degraded with demonstratives, relative clauses, and quantifiers.

- (6) NOUN _ DEMONSTRATIVE
- | | | |
|------------------|------------------|-----------------------|
| a. CLASSIFIER | b. PLURAL | c. MEASURE |
| màak.khǒ hǒj nǎj | màak.khǒ tsɿ nǎj | màak.khǒ kǒŋ nǎj |
| jujube CLF this | jujube PL this | jujube pile this |
| ‘this jujube’ | ‘these jujube’ | ‘this pile of jujube’ |

STRUCTURE	CLASSIFIER	PLURAL	MEASURE
N NUM _	✓	✓	✓
N _ DEM	✓	✓	✓
N _ RC	✓	✓	✓
N QUANT _	✓	✓	✓

Table 1: Classifies, Plural Morpheme, and Measure terms with same pattern

- Like Japanese and Korean, the Shan plural morpheme can appear with a numeral and classifier (7a), as can measure phrases, as in (7b).
- While classifiers can appear in multiple places in the nominal expression, substituting a classifier for *tsɿ* in (7a) would be ungrammatical.
- The measure phrase and plural morpheme are not strictly in complementary distribution with the classifier.

- (7) a. PLURAL b. MEASURE:CONTAINER
- | | |
|-------------------------|------------------------------|
| (tsɿ) màak.khǒ síp hòj | (kǒŋ) màak.khǒ síp hòj |
| PL fruit-jujube ten CLF | pile fruit-jujube ten CLF.PL |
| tsɿ nǎj | kǒŋ nǎj |
| PL this | pile this |
| ‘these ten jujube.’ | ‘this pile of ten jujube.’ |

- In (7a) and (7b), the plural morpheme or measure word can optionally appear as the head noun of the phrase.

Other uses of the plural morpheme

- *tsɿ* can precede nouns (8), pronouns (10), and names (9) —for a plural or associative plural interpretations.

- (8) _ NOUN (9) _ NAME (10) _ PRONOUN
- | | | |
|-----------------------|-------------|----------|
| tsɿ luk-hén | tsɿ Khám | tsɿ khǎw |
| TSɿ child-study | TSɿ Kham | TSɿ 3.PL |
| ‘(group of) students’ | ‘the Khams’ | ‘they’ |

Count versus Measure

- Depending on the predicate a noun combines with and real world knowledge, a measure head noun may or may not be felicitous.

- (11) COUNT
- hǎw ʔǎw #(kók) nām sǎam kók tǔk
 1 take cup water three cup break
 ‘I broke three water cups/#cups of water.’
- (12) MEASURE
- thɛŋ pǎn (#kók) nām sǎam kók sǎu ti náu mǒ
 add give cup water three cup put at in pot
 ‘Add three cups of water/#water cups to the pot.’

- (13) CONTAINER+CONTENTS
- hǎw ʔǎw (kók) nām sǎam kók máa pǎn khǎk
 1 take cup water three cup come give guest
 ‘I brought three cups of water for the guests.’

- When the distinction between contents and container is not relevant (see Partee & Borschew 2012), the container head noun is optional: (13).
- Rothstein (2016) argued that classifiers can express both count and measure semantics, and this is represented with different syntactic structures. The data in (11)-(13) support such an analysis for Shan (cf. Bale et al. 2019).
- Hundius & Kölver (1983) and Simpson (2005), have noted that Thai has a set of measure terms which appear with no head noun.
- In Shan when a repeater classifier with the same form as the noun (14), the noun is optional for some words.

- (14) (tsuŋ.mɿŋ) sǒŋ tsuŋ.mɿŋ nân
 country two country that
 ‘those two countries’
- (15) [[tsɿ[= λPλx.[P(x) & GROUP(x) & ¬∃y(P(y) & GROUP(y) & y < x)]]
 (classifier form of plural morpheme; based on Nomoto 2013)

- The structures (7a)-(7b) come from a complex noun formed from the measure term and *màak khǒ síp hòj* ‘ten jujube’. When the container-contents distinction is not important, the measure term head noun can be deleted.

Conclusion

- The Shan plural morpheme is a noun meaning ‘group’ that can function as the head noun of a N-N compound, as in (8)-(10), or as a measure word, as in (6b) and (7a).
- The plural morpheme and measure terms like *kǒŋ* ‘pile’ have the same distribution as classifiers, but they can combine with numeral-modified nouns to form a complex noun phrase.
- Measure terms can be used for a count, measure, or Container+Contents meaning. This distinction affects the syntactic structure.