

NORTHERN PWO KAREN NUMERAL CLASSIFIERS: SEMANTIC CATEGORIES AND STRUCTURES¹

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Abstract

Descriptions of the numeral classifier systems of Karenic (Tibeto-Burman) languages are limited to Eastern Kayah (Solnit 1997), Thai Sgaw Karen (Ratanakul 2001), and Kayan (Manson 2010). Thus, this paper aims to expand knowledge about Karenic classifiers by describing the numeral classifiers in a Northern Pwo Karen 103,000-word corpus of mostly narrative texts. Northern Pwo Karen is an under-documented Karenic language that is not intelligible with other Pwo Karen language varieties. The numeral classifiers include a small inventory of sortal classifiers and a more extensive inventory of mensural classifiers. Both sortal and mensural classifiers occur in interrogative and indefinite reference expressions. They also appear in adverbial phrases that provide more information about events.

Keywords: Karenic, Pwo Karen, numeral classifiers

ISO 639-3 codes: pww, ksw, pdu, eky, mja

1 Introduction

This paper introduces the numeral classifiers of Northern Pwo Karen (N. Pwo, hereafter), along with the noun phrase and other structures in which numeral classifiers occur. The article also compares the N. Pwo noun phrase with the noun phrases of other Karenic languages: Eastern Kayah (Solnit 1997), Thai Sgaw Karen (Ratanakul 2001), and Kayan (Manson 2010).

N. Pwo (Tibeto-Burman, Karenic, Pwo Karen) speakers live in Chiang Mai and Mae Hong Son provinces in northern Thailand, numbering approximately 52,000 (Dawkins & Phillips 2009a). The N. Pwo were forcibly relocated or migrated to northern Thailand from the Zwei Kabin hills of Karen State in Myanmar around the year 1800 (Renard 1980). N. Pwo is mutually unintelligible with other Pwo Karen language varieties (Dawkins & Phillips 2009a, 2009b).

Researchers define numeral classifiers as forms that occur with a numeral (Burling 1965; Craig 1992; Aikhenvald 2000). However, this does not mean that a classifier must always occur with a numeral. Furthermore, classifiers are of two types: (1) sortal classifiers that reflect an inherent property of a noun referent and (2) mensural (measure) classifiers that impose a measurement on the noun referent (Saul 1964; Grinevald 2000).

Some researchers consider sortal classifiers true classifiers (Greenberg 1972; Becker 1975; Adams 1989; Croft 1994; Bisang 1999; Enfield 2007). Furthermore, based on cross-linguistic research, sortal classifiers typically reflect the inherent properties of animacy, dimensionality (long, flat, round), and function (Adams & Conklin 1973; Croft 1994; Bisang 1999).

Jones (1970:3) proposes two noun phrase structures for numeral classifier languages depending on whether the classifier phrase (numeral + classifier) precedes or follows the noun head. In Karenic languages, the classifier phrase follows the noun head. He further classifies these noun phrase structures depending on whether the demonstrative precedes or follows the classifier phrase. Karenic languages show both orders.

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The data source for this paper is a 103,526-word corpus of mainly narrative texts representing both the Mae Hong Son and Chiang Mai varieties of N. Pwo. It spans a 30-year period, starting in 1980, and contains 99 numeral classifier forms. Where available, the article also includes genetically related Karenic language forms for Thai Sgaw Karen (Ratanakul 2001), Kayan (Manson 2010), and Eastern Kayah (Solnit 1997). In addition, Luangthongkum (2019) is the source of the Proto-Karen forms.

Section 2 describes the N. Pwo noun phrase. Then, sortal classifiers, mensural classifiers, and other classifiers are covered in Sections 3, 4, and 5, respectively. Sections 6 and 7 describe other uses of classifiers beyond enumerating noun referents. The paper concludes in Section 8 with a summary of the findings and directions for further research.

2 The N. Pwo noun phrase

The N. Pwo noun phrase includes possessor, modifier, quantifier, classifier, and demonstrative modification. Section 2.1 focuses on the simple noun phrase, comparing it with the noun phrase structures of other Karenic languages. Then, Section 2.2 lists the quantifiers that occur with numeral classifiers in the data. Finally, Section 2.3 summarizes the observations about the N. Pwo noun phrase and quantifiers.

2.1 Simple noun phrase

In the N. Pwo simple noun phrase, a possessor (noun phrase or possessive determiner) can precede the head while the remaining elements follow it. These post-head elements include modifier(s) (stative verb or noun), a quantifier (numeral or quantifying word), a numeral classifier, and a demonstrative (proximal, medial, distal), as in (1).²

- (1) *kəmĩ* *lə=* *uĕ* *ʔĩ* *maiʔ* *dí* *ʔə=pʰu* *mĩ* *kʰĩ*
 girl one CL.human this be.well with 3.POSS=offspring be.female two
uĕ *ʔĩ* *tê* *tê*
 CL.human this certainty certainty
 ‘This woman was very comfortable with his two daughters.’

Two noun phrases occur in (1). In the first noun phrase, the noun head is *kəmĩ* ‘girl’, and its modifiers are the quantifier *lə=* ‘one’, the sortal classifier for humans *uĕ*, and the proximal demonstrative *ʔĩ*. The direct object noun phrase is a maximal noun phrase with the head *pʰu* ‘offspring’. It takes the third-person possessive determiner *ʔə=* ‘his’ along with the stative verb modifier *mĩ* ‘be.female’, the quantifier *kʰĩ* ‘two’, the human classifier *uĕ*, and the proximal demonstrative *ʔĩ*.

While all four Karenic languages under consideration report a noun phrase structure in which a stative verb modifier can occur between the noun head and the classifier phrase (quantifier + classifier), both Sgaw Karen and Eastern Kayah allow a stative verb modifier after a classifier phrase or demonstrative. (2) illustrates an Eastern Kayah (Solnit 1997:180) noun phrase with the stative verb after the classifier phrase.

- (2) *ʔiswí* *nā* *bəl̀* *du*
 curry two bowl big
 ‘two big bowls of curry’

In (2), the modifier *du* ‘big’ occurs after the classifier phrase at the end of the noun phrase.

² The N. Pwo transcription follows the IPA (2020) chart. N. Pwo has six tones: four modal tones and two glottalized tones with glottal closure. The four modal tones are High (45) /á/, Mid (33) /a/, Falling (41) /â/, and Low (21) /à/. A raised final glottal stop indicates the two glottalized tones: Mid-glottalized (33ʔ) /aʔ/ and Falling-glottalized (32ʔ) /âʔ/.

(3) illustrates a similar Sgaw Karen (Ratanakul 2001:315) noun phrase.

- (3) *koʔ¹ (beʔ¹) ʔi² be² ye²*
 cake CL this tasty
 ‘this tasty cake’

In (3), the stative verb *be² ye²* ‘tasty’ functions as a modifier of the noun head within the noun phrase, occurring after the optional classifier and demonstrative.

In N. Pwo, a similar structure yields a descriptive clause (4).

- (4) *dâuʔ ʔî sâteâiʔ*
 house this be.brand.new
 ‘This house is brand new.’

In (4), the stative verb *sâteâiʔ* ‘be.brand.new’ functions as the predicate, not a modifier of a noun head as in Eastern Kayah (2) and Sgaw Karen (3).

Thus, in the noun phrase structures of N. Pwo, Sgaw Karen, Kayan, and Eastern Kayah, the classifier phrase follows the noun head, which fits into Jones’ (1970:3) Type II classifier construction. Also, a stative verb modifier occurs directly after the noun head in all four Karenic languages. However, in both Sgaw Karen and Eastern Kayah, a stative modifier can also appear after a classifier phrase or demonstrative.

As for demonstrative positioning in the noun phrase, the demonstrative follows the classifier in N. Pwo and Sgaw Karen (Ratanakul 2001:314). Conversely, the demonstrative precedes the (quantifier) + classifier in Kayan (Manson 2010:251) and Eastern Kayah (Solnit 1997:179). Furthermore, Solnit (1997:191) characterizes a demonstrative as an optional modifier of a classifier phrase. In contrast, the demonstrative can modify a noun head with or without a classifier in Kayan, Sgaw Karen, and N. Pwo. (5) shows a N. Pwo noun with a demonstrative modifier.

- (5) *nə= kʰâʔ kʰwè lī nɔ mə*
 2.SUBJ shoot observe **squirrel that** INTENS
 ‘‘You try to shoot that squirrel, please.’’

A demonstrative can modify both a modified noun and a classifier, as in (6).

- (6) *lái kʰâtʰâiʔ ʔî pʰê ʔî ẽĩ ɣî maʔ*
cave base this CL.side this be.cool be.good to.the.fullest
 ‘This base of the cave on this side was really cool and comfortable.’

In (6), the noun phrase comprises two nominals: a possessive noun phrase and a classifier-headed phrase. In the possessive noun phrase, the head *kʰâtʰâiʔ* ‘base’ and its possessor *lái* ‘cave’ takes the proximal demonstrative modifier to yield ‘this cave’s base’. The classifier *pʰê* also takes the proximal demonstrative in the headless prepositional phrase ‘this side’.

Noun phrase heads and their modifiers also differ between Karenic languages. N. Pwo noun phrases can be headed by common and proper nouns, pronouns, and classifiers. Common nouns, proper nouns, and pronouns can take quantifier, classifier, and demonstrative modifiers. A proper noun head is illustrated in (7).

- (7) *ʔâiʔsâiʔ lə= ɣê ʔî ʔə=nẽ ʔo sá jê jâuʔ*
AiSai one CL.human this 3.POSS=year exist three CL.hundred INCH
 Lit. ‘AiSai, one human, this, his years exist 300 already.’
 ‘This AiSai was already 300 years old.’

The clause in (7) comes from a story about several AiSai entities that differ by age. The proper noun head takes quantifier, classifier, and demonstrative modifiers. In contrast, Eastern Kayah (Solnit 1997:178) and Kayan (Manson 2010:110) proper noun heads typically take no modification.

N. Pwo pronoun heads also take quantifier, classifier, and demonstrative modifiers, as in (8).

- (8) *mê* =*âʔ* *lə=* *bě* *nɔ*
do 3.OBJ one CL.flat that
‘Just take that flat thing.’

In (8), the third-person object pronoun =*âʔ* functions as the head of the direct object noun phrase. It refers to a goose, referenced earlier in the text. Its modifiers include the classifier phrase *lə=bě* ‘one flat thing’ and the medial demonstrative *nɔ*. While pronouns can head noun phrases in Eastern Kayah, they generally do not take modifiers (Solnit 1997:184). The same is true for Kayan (Manson 2010:254).

In N. Pwo, classifiers function as noun phrase heads with or without a quantifier. Often, a demonstrative occurs with a classifier head, as in (9).

- (9) *ʔá* *tɛə=* *mə=* *mê* *lə=* *bě* *ʔú*
Ah! I.SUBJ IRR do one CL.flat yonder
‘Ah! I want that one yonder.’

In (9), the classifier-headed nominal *lə=bě ʔú* ‘yonder flat thing’ fills the direct object position of the clause. It refers to a goose introduced earlier in the discourse.

Classifier-headed phrases also function as time adverbials, as in (10).

- (10) *lí* *mê* *tʰé* *kʰí* *sá* *sá* *sá* *pʰá* *nɔ*
go do song two CL.night three CL.night CL.time that
‘(They) sang for two or three nights that time.’

(10) includes two temporal adverbials in the right periphery of the clause. The first, *kʰí sá sá* ‘two or three nights’, is discussed further in §7.2. The second temporal adverbial *pʰá nɔ* ‘that time’ comprises the classifier head *pʰá* ‘CL.time’ and the medial demonstrative *nɔ*. In (10), the classifier occurs without a quantifier, although this adverbial can also include a quantifier preceding the classifier. Before summarizing the N. Pwo noun phrase structure, the following section examines the quantifiers that occur with classifiers in the data.

2.2 Quantifiers

The quantifiers that occur with classifiers include both numerals and quantifying words. Table 1 lists the quantifiers in the data. An en dash (–) indicates missing data.

Table 1: *N. Pwo numerals and quantifying words*

Quantifier	N. Pwo	Proto-Karen	Sgaw Karen ³	Kayan	E. Kayah
‘one’	<i>lə=</i>	*t-la ^T	<i>tə</i> ³³	<i>là-/tà-</i>	<i>tə-</i>
‘two’	<i>k^hí</i>	*k-hnej ^A	<i>khi</i> ⁵⁵	<i>ní-/ŋú-</i>	<i>nā</i>
‘three’	<i>sá</i>	*səm ^A	<i>sə</i> ³³	<i>θyán-</i>	<i>sō</i>
‘four’	<i>lì</i>	*lit ^D /*hlwi ^A /*lwi ^A	<i>lwi</i> ¹¹	<i>lwé-</i>	<i>lwī</i>
‘five’	<i>jè</i>	*ŋjat ^D	<i>je</i> ¹¹	<i>ŋáí-</i>	<i>ŋē</i>
‘six’	<i>xú</i>	*khrow ^A	<i>xí</i> ³³	<i>s^hù-</i>	<i>sō swá</i>
‘seven’	<i>nwé</i>	*ŋwet ^D /*ŋwe ^A	<i>nwi</i> ²⁴⁵	<i>nwè-</i>	<i>sō swá tə-</i>
‘eight’	<i>xō</i> [?]	*khrət ^D /*grət ^D	<i>xɔ</i> ²⁴⁵	<i>s^hǝ-</i>	<i>lwī swá</i>
‘nine’	<i>k^hwí</i>	*kot ^D /*khwí ^A	<i>khwi</i> ³³	<i>k^hwí-</i>	<i>lwī swá tə-</i>
‘every’	<i>kú</i> [?]	–	–	–	–
‘not even one’	<i>ná</i>	–	–	–	–
‘not even one’	<i>t^hú</i>	–	–	–	–
‘many’	<i>t^həblái</i> [?]	–	–	–	–
‘many’	<i>xwí</i>	–	–	–	–
‘a lot’	<i>ʔɛ</i>	–	–	<i>à</i>	–
‘whole’	<i>ná</i>	–	–	–	–
‘whole’	<i>dá</i>	–	–	–	–
‘throughout’	<i>sé/sé</i>	–	–	–	–
‘some’	<i>bɛ</i>	–	–	–	–

2.3 Summary of noun phrase structure and quantifiers

To summarize, the N. Pwo noun phrase patterns like the Sgaw Karen noun phrase in which the head is preceded by a possessor noun phrase or possessive determiner and followed by a stative verb or noun modifier, quantifier, classifier, and demonstrative. The only obligatory element in the noun phrase is the noun head. Common nouns, proper nouns, pronouns, and classifiers with or without a quantifier can all function as the head of a noun phrase. Furthermore, all heads can take a demonstrative, while only common nouns, proper nouns, and pronouns can take classifier modification with or without a quantifier. Demonstratives precede the classifier phrase in Eastern Kayah and Kayan, while the demonstrative follows the classifier phrase in Sgaw Karen and Pwo Karen. Eastern Kayah demonstratives modify a classifier phrase, while Kayan, Sgaw Karen, and N. Pwo demonstratives can modify a common noun head without a classifier. Finally, a stative verb modifier follows the noun head in N. Pwo, Sgaw Karen, Kayan, and Eastern Kayah. However, in Sgaw Karen, a stative verb modifier can also occur after a demonstrative within a noun phrase. A stative verb can also appear after the classifier phrase in an Eastern Kayah noun phrase. N. Pwo, Sgaw Karen, and Kayan numerals one to nine reflect the Proto Karen numerals, while only Eastern Kayah numerals one to five reflect Proto Karen numerals. For quantifying words, the data is too limited to determine similarities, except for the N. Pwo *ʔɛ* and Kayan *à* ‘a.lot’.

Table 2 summarizes the N. Pwo noun phrase structures discussed in Section 2.

Table 2: *N. Pwo noun phrase structures*

Noun-headed noun phrase	(Possessor) + Noun + (Modifier) + (Quantifier) + (Classifier) + (Demonstrative)
Pronoun-headed noun phrase	Pronoun + (Quantifier) + (Classifier) + (Demonstrative)
Classifier-headed noun phrase	(Quantifier) + Classifier + (Demonstrative)

³ The Thai Sgaw Karen numerals come from L-Thongkum (2011).

3 N. Pwo sortal numeral classifiers

According to cross-linguistic studies, sortal classifiers typically reflect the noun head referent's animacy, dimensionality, and function (Adams & Conklin 1973; Croft 1994; Bisang 1999). The N. Pwo sortal classifiers follow this cross-linguistic pattern.

Starting with animacy, N. Pwo distinguishes human and non-human animates. For humans, N. Pwo has just one classifier *uĕ*, a reduced form of Proto-Karen *bra^A (Luangthongkum 2019). The shape of this classifier in Thai Sgaw Karen is *ya³³* (Ratanakul 2001), while the human classifiers in Kayan (Manson 2010:211) and Eastern Kayah (Solnit 1997:195) are *prà* and *phre ~ sí*, respectively.

The N. Pwo human classifier is used for all humans, regardless of social status or age (11).

- (11) *bedô[?] p^hi^se mĩ lə= uĕ ʔĩ ʔo wé lə= mai[?] bε*
 however **child be.female one CL.human this** exist 3.OBJ NEG be.well NEG
 ‘However, this girl was not happy.’

In (11), the noun head *p^hi^se* ‘child’ takes the human classifier *uĕ*. This human classifier also classifies parents, angels, devils, owners, enslaved people, rich and poor, friends, and foreigners.

In addition, a narrator can use the human classifier to classify an animal acting as a human, as in (12).

- (12) *ʔə=wé lə= mĕ wé bε besá[?] dí kəte^há[?]p^hu lə= uĕ ló*
 3.SUBJ NEG do 3.OBJ NEG want with **elephant.small one CL.human** EMPH
 ‘She did not want them; (she) wanted Small Elephant.’

In (12), a woman has married a small elephant. Since he has disappeared into the swamp, her father has suggested that she accept a new husband from among the young men. However, she does not want them. She only wants her elephant husband.

For non-human animates, three classifiers occur in the corpus: *dĩ*, *t^hǎ*, and *mĩ*. The first, *dĩ* ‘CL.animate’, is primarily used for four-footed animals. It is a reflex of Proto-Karen *ʔdə^A (Luangthongkum 2019). The Sgaw Karen form is *dĩ²* (Ratanakul 2001:302), the Kayan form is *dá* (Manson 2010:198), and the Eastern Kayah form is *do³³* (Solnit 1997:195).

(13) illustrates the N. Pwo animate classifier.

- (13) *t^hə^sú lə= dĩ nɔ nai[?] lá wé wai[?]*
bear one CL.animate NMLZ_{that} enter descend 3.OBJ immediately
 ‘As for the bear, (it) entered it immediately.’

In addition to domestic and wild four-footed animals, *dĩ* also classifies items associated with hunting or fishing, such as baskets, back baskets, rice baskets, and creels. This classifier also classifies giants, ghosts, serpents, and snakes.

The other two animate classifiers classify plants. The first, *t^hǎ*, classifies vertical plants, such as trees and tomato plants. Its probable source is the stative verb *t^hǎ* ‘be.vertical’. The second, *mĩ* ‘CL.vine’ likely came from the noun *mĩ* ‘main stem of a vine’. The Sgaw Karen form is *mi¹* (Ratanakul 2001), and the Kayan form is possibly *mān*, which classifies plants other than bamboos or grasses (Manson 2010). In Kayan, it also functions as a noun with the meaning ‘tree trunk’. The Eastern Kayah noun *mò* also means ‘tree trunk’ and classifies plants (Solnit 1997).

N. Pwo has sortal classifiers for one-dimensional (long), two-dimensional (flat), and three-dimensional (round) objects. They classify both animate and inanimate entities regardless of their size. Table 3 lists the Proto-Karen, N. Pwo, Sgaw Karen, Kayan, and Eastern Kayah dimensional classifiers.

Table 3: *Karenic dimensional classifiers*

Classifier	Proto-Karen	N. Pwo	Sgaw Karen	Kayan	Eastern Kayah
CL.long	*bɔN ^A	<i>bô</i>	<i>bo²</i>	<i>bón</i>	<i>bō</i>
CL.flat	*ba ^B	<i>bĕ</i>	<i>be[?]1</i>	<i>bĕn</i>	<i>be</i>
CL.round	*phlɔŋ ^B	<i>p^hlō̄/p^hlō̄</i>	<i>p^hlā[?]1</i>	<i>p^hlôn</i>	<i>plɔ</i>

The N. Pwo dimensional classifiers and the nouns they classify are listed in Table 4.

Table 4: *N. Pwo dimensional classifiers and the nouns they classify*

Classifier	Nouns	Frequency
<i>bḥ</i> ‘CL.long’	Saliently one-dimensional things (arm, bamboo, bamboo stick, boat, bracelet, fish, fishhook, monitor lizard, necklace, nose ring, one hair of a mustache, opium pipe, path, python, ring, river, rope, second toe, shovel, trousers, bridge, snake, sugar cane, switch, toothpick, vine, walking stick, whip)	114
<i>bē</i> ‘CL.flat’	Saliently two-dimensional things (ant, bench, bird, blanket, book, buffalo skin, chicken, cloth, comb, country, crab, cricket, crow, cup, dove, eagle/hawk, egret, fish, hammer, handsaw, hemp, hemp bark, knife, letter, moon, parrot, pheasant, picture, plate, shirt, serpent, skin, spade, spear, sword, tile, toad, turtle with eggs, wing, winnowing tray, world)	134
<i>p^hlō/p^hlō</i> ‘CL.round’	Saliently three-dimensional things (house, mountain, shoulder bag, song, bead, sesame seed, boat, bottle, bucket, clay jar, cooking pot, dried banana, egg, flour plug, gold, gong, handbasket, palace, pipe, rock, rockpile, silver piece, skull, slingshot pellets, small hut, snail, storehouse, swamp, termite hill, water buffalo bell, water pumpkin, watermelon)	126

As shown in Table 4, N. Pwo categorizes long things with their ends connected, such as necklaces and rings, with long things without any connections, such as snakes and bridges. The world and the moon fit in with flat entities, and three-dimensional entities include songs.

The last two sortal classifiers in the data classify entities based on their function. The first, *k^hé* ‘CL.hunting.implement’, classifies arrows, pellet-bows (slingshots), fishhooks, and guns. The other classifier, *tē^hḥ*, also classifies arrows along with carts, dams, eyeglasses, machines, spinning wheels, guq trees, and resurrection wood. The N. Pwo use guq trees to dye cloth and resurrection wood to magically resurrect people and animals in stories.

The N. Pwo sortal classifier inventory is small compared to Standard Thai and Burmese due to the lack of human classifiers that reflect social status and dimensional classifiers that distinguish size and rigidity. Additionally, the human, animal, and dimensional sortal classifiers can be traced back to Proto Karen for N. Pwo, Sgaw Karen, Kayan, and Eastern Kayah.

4 N. Pwo mensural classifiers

In contrast to sortal classifiers that refer to an inherent property of a noun referent, mensural classifiers impose a measurement or arrangement on a noun referent (Saul 1964). A mensural classifier is illustrated in (14).

- (14) *uḥ* *ḥə=wé* *təai* *dí* *ḥə=p^hu* *lə=* *mú*
 finish 3.SUBJ walk with 3.POSS=offspring one CL.group
 ‘Then, she walked with her group of children.’

In (14), the collective classifier *mú* ‘CL.group’ imposes a measurement on the noun head *p^hu* ‘offspring’, indicating a group of children.

The rest of this section follows Gerner (2006), who divides Kam-Tai mensural classifiers into standard (§4.1), non-standard (§4.2), and collective and partitive measures (§4.3). The section ends with a summary of N. Pwo mensural classifiers (§4.4).

4.1 Standard measure classifiers

Standard measure classifiers reflect regional and internationally recognized measures of “precise value”, including length, weight, volume, and time (Gerner 2006:289). Example (15) illustrates a volume classifier.

- (15) *jàilé* *ʔā wé ʔā uʔísáʔ lə= lé kʰí lé*
 work.for.hire eat 3.OBJ eat **uncooked.rice one CL.litre two CL.litre**
 ‘(They) worked for hire and got one or two litres of uncooked rice.’

In (15), *uʔísáʔ* ‘uncooked.rice’ is measured in *lé* ‘CL.litres’.

A time classifier is illustrated in (16).

- (16) *mî lə= nî mə= nì be tʰə=maɪ tʰə=pʰâ lô*
day one CL.day IRR get strike happiness EMPH
 ‘One day, we will get happiness!’

In (16), the time adverbial is a noun phrase in which the classifier phrase *lə= nî* ‘one day’ modifies the noun head *mî* ‘day’.

Table 5 lists the other standard measure classifiers in the corpus, starting with money classifiers, then length and volume classifiers, and ending with time classifiers, which are the most numerous. No weight classifiers occur in the corpus.

Table 5: *N. Pwo standard measure classifiers*

Frequency	Classifier	Measure	Source	Proto-Karen	Sgaw Karen	Kayan	E. Kayah
4	<i>soʔ</i>	‘CL.satang’	–	–	–	–	–
6	<i>éú</i>	‘CL.10.satang’	–	–	–	–	–
33	<i>báʔ</i>	‘CL.baht’	Thai <i>bàat</i> ‘baht’	–	<i>baʔʔ</i>	–	<i>ba</i>
1	<i>kilo</i>	‘CL.kilometre’	English <i>kilometre</i>	–	–	–	–
5	<i>lé</i>	‘CL.litre’	English <i>litre</i>	–	–	–	–
186	<i>pʰá</i>	‘CL.time’	–	–	–	–	<i>phó</i>
11	<i>téʰúʔ</i>	‘CL.instance’	–	–	–	–	–
3	<i>pnaʔ</i>	‘CL.long.moment’	–	–	–	–	–
145	<i>tʰĩ</i>	‘CL.moment’	<i>tʰĩ</i> ‘moment’	–	–	–	–
4	<i>tʰô</i>	‘CL.period’	–	–	–	–	–
30	<i>wá</i>	‘CL.round’	–	–	–	–	–
14	<i>mô</i>	‘CL.hour’	Thai <i>téʰúamooy</i> ‘hour’	–	–	–	–
296	<i>nî</i>	‘CL.day’	–	*nej ^A	<i>ni</i> ²	<i>nî</i>	<i>nā</i>
22	<i>uʔô</i>	‘CL.morning’	<i>uʔô</i> ‘morning’	–	–	–	<i>rô</i>
9	<i>uʔé</i>	‘CL.evening’	<i>uʔé</i> ‘evening’	–	–	–	–
67	<i>sá</i>	‘CL.night’	–	–	<i>soʔ</i>	–	<i>sē</i>
7	<i>nê</i>	‘CL.night’	–	–	–	–	–
6	<i>nwé</i>	‘CL.week’	<i>nwé</i> ‘seven’	*ʔnwe ^A	<i>nwi</i> ²³	–	–
6	<i>lê</i>	‘CL.month’	<i>lê</i> ‘moon’	*ʔla ^A	–	–	–
54	<i>né</i>	‘CL.year’	<i>né</i> ‘year’	*hneɲ ^B	<i>ni</i> ¹	<i>nê/nên</i>	–

4.2 Non-standard measure classifiers

Gerner (2006:290) describes non-standard measure classifiers as an open class since speakers can utilize containers or other limiters that are “vague and not socially recognized.” Table 6 lists a selection of the non-standard measure classifiers in the corpus, starting with arrangements, event counting, and containers.

Table 6: N. Pwo non-standard measure classifiers

Frequency	Classifier	Measure	N. Pwo Source	Sgaw Karen
8	$\bar{l}\bar{o}$	lumps (shampoo, cooked rice, eye mucous)	–	lo^1
15	$p\hat{o}$	heaps (thatching grass, people, straw, branches, wealth, rocks, money)	–	–
9	$te^h\bar{a}u^?$	clusters (hair)	$te^h\bar{a}u^?$ ‘hold’	–
10	$t^h\acute{a}$	layers (cloth, cooking pot, house (floors), leaves, pillow)	–	–
4	$k^h\tilde{t}$	balls (thread, yarn)	$k^h\tilde{t}$ ‘wind.into.ball’	khi^1
6	$x\acute{a}$	steps (explain, do something step-by-step)	$x\acute{a}$ ‘stairs’	–
3	$k^h\bar{l}\bar{i}$	stair steps (vertical movement: stairs, trees)	–	–
6	$b\bar{o}$	packets (cooked rice, dried cabbage)	$b\bar{o}$ ‘wrap’	bo^2
7	$d\hat{o}/d\hat{o}$	small containers (shampoo, matches, cow’s milk, nests)	$d\hat{o}$ ‘small.container’	$d\partial^1$
7	$p^h\acute{a}$	storehouse (silver, gold, precious stones, rice)	$p^h\acute{a}$ ‘rice.barn’	–
6	$d\bar{u}$	handful (hair)	–	–
1	$u\bar{o}$	large pots (cooked rice)	–	–
10	$k\hat{o}$	bottles (shampoo, Coke, liquor)	$k\hat{o}$ ‘bottle’	–
3	$m\hat{o}$	mouthful (cooked rice)	–	$m\partial^2$
8	$p^h\bar{o}^?$	tubes (bamboo, water, lime)	–	–

4.3 Collective and partitive measure classifiers

Collective classifiers gather entities with inherent boundaries into groups and kinds, while partitive measures gather parts of a larger entity (Gerner 2006:288). Table 7 lists the collective and partitive measures in the corpus.

Table 7: N. Pwo collective and partitive measure classifiers

Classifier	Measure	Frequency	Source	Sgaw Karen
Collective classifiers				
<i>kũ</i>	pairs (snakes, frogs, people, husband/wife, shoes)	32		
<i>dõ</i>	families (people)	2	–	–
<i>mũ</i>	groups (pigs, children, friends, crows, fish, monkeys, soldiers)	26	–	–
<i>p^hε</i>	groups (people, things studied, animals, good things, stories, stones)	30	–	–
<i>põ</i>	sets (tree bark, ashes, food, drink)	17	–	–
<i>ʔâu^ʔ</i>	groups/types (people, things)	17	–	<i>ʔu^{ʔ3}</i>
<i>mê/mê</i>	kinds (entities, events)	280	–	<i>mi²</i>
Partitive classifiers				
<i>kâi</i>	pieces (trousers, bark, bamboo, crab shell)	4	–	–
<i>k^hó</i>	part (something blunt, water, hand, lower, stuff, dying, living, heart, place, people, money, evening, house, river)	38	–	–
<i>kâi^ʔ</i>	sections, half	10	–	<i>ki^{ʔ3}</i>
<i>ná</i>	some (cloth, face, body, leg, head, leaf, dust, splinters, people, hands, money, groceries, rice, an action)	21	–	–
<i>p^hê</i>	sides (mother's/father's family, sun, giant (back/front), ear, eye, wing, leg, riverbank, house, field, cave, heaven, water, arm, claw)	58	–	<i>pa²</i>
<i>pí</i>	bits (entities, states, and actions: a bit of milk, know a bit about something, do a bit of something)	76	<i>pí</i> 'be.little'	–
<i>xó</i>	part of a land area (lower area, other side)	14	–	–

4.4 Summary of N. Pwo mensural classifiers

N. Pwo mensural or measure classifiers span a range of measures. These measures include regionally and internationally recognized money, length, volume, and time units. In addition, speakers can utilize containers and other limiters to impose measurements on countable and non-countable entities, gather entities into groups or kinds, and single out parts of larger entities.

5 Other classifier types

The last three classifier types are specific classifiers, number bases, and auto-classifiers. Specific classifiers only occur with one noun referent (§5.1). Number bases combine with numerals to express larger numerals (§5.2), while auto-classifiers are noun heads that also function as a classifier of that noun head with a quantifier (§5.3).

5.1 Specific classifiers

Table 8 lists the specific classifiers that occur in the corpus with the noun they classify.

Table 8: N. Pwo specific classifiers

Classifier	Noun referent	Frequency
<i>p^hu̇</i> ‘CL.flower’	<i>t^h.p^hó</i> ‘flower’	16
<i>j̇</i> ‘CL.story, poetry, song’	<i>é̇</i> ‘story’	57
<i>pa[?]</i> ‘CL.book’	<i>lai[?]</i> ‘book, letter’	2
<i>k^hai[?]</i> ‘CL.tube.skirt’	<i>n̄/n̄</i> ‘tube.skirt’	2

5.2 Number base classifiers

Some N. Pwo number base classifiers distinguish between monetary amounts and non-monetary amounts. Table 9 lists the number bases in the corpus with the Proto-Karen, Sgaw Karen, Kayan, and Eastern Kayah forms.

Table 9: N. Pwo number base classifiers

Frequency	Classifier	Proto-Karen	Sgaw Karen ⁴	Kayan	E. Kayah
38	<i>té^hi̇</i> ‘ten’	*chej ^A	<i>chi³³</i>	<i>s^hí</i>	<i>chá</i>
7	<i>jé</i> ‘hundred’	*g-rja ^A	—	<i>zà/yà</i>	<i>je</i>
42	<i>p^hà̇</i> ‘hundred (money)’	—	—	—	—
9	<i>má</i> ‘thousand’	—	—	<i>rèn</i>	<i>rí</i>
1	<i>sai</i> ‘ten thousand (money)’	—	—	—	<i>só</i>
1	<i>klá[?]</i> ‘ten thousand’	—	—	<i>θōn</i> (Burmese)	—

For most number base classifiers, the numeral precedes the classifier, as in (17).

- (17) *téop^huxwi* *mê* *nì* *téi* *lə=* *má* *t^hí* *lə=* *p^hà̇*
 male.orphan do get silver one CL.thousand gold one CL.hundred (money)
 ‘The orphan gathered the one thousand in silver and one hundred in gold.’

Two noun phrases with number base classifiers occur in (17). In the first noun phrase, headed by *téi* ‘silver/money’, the number base classifier is *má*, which counts monetary and non-monetary amounts. In the second noun phrase, headed by *t^hí* ‘gold’, the monetary classifier *p^hà̇* ‘CL.hundred (money)’ indicates that gold is a form of payment.

For multiples of ten, such as 20 or 30, the numeral follows the classifier, as in (18).

- (18) *ʔə=dī* *ʔo* *ʔə=p^hlō* *sáte^hí* *jé*
 3.POSS=egg exist 3.POSS=CL.round thirty complete
 ‘There were thirty eggs all together.’

In (18), the noun head is *dī* ‘egg’ with its possessor modifier *ʔə=*. Following the existence predicate, the classifier *p^hlō* ‘CL.round’ takes the third-person possessive determiner *ʔə=* and precedes the numeral *sáte^hí* ‘thirty’.

5.3 Auto-classifiers

The N. Pwo corpus includes several auto-classifiers or repeaters. An auto-classifier is a noun head that also functions as the classifier with a numeral, as in (19).

⁴ Thai Sgaw Karen number base from L-Thongkum (2011).

- (19) $t^h\partial=d\hat{e}$ $l\partial=$ $d\hat{e}$ $j\acute{e}$ $j\hat{o}$ $b\epsilon m\omega$ 'bet^h\acute{e}
 NMLZ_{thing}=lay.flat one CL.flat.place complete this be.sufficient
 'This flat place is sufficient...'

In (19), $d\hat{e}$ 'CL.flat.place' repeats the base morpheme $d\hat{e}$ 'lay.flat' in the nominalized verb construction $t^h\partial=d\hat{e}$ 'flat place'. Similarly, mountains ($t^h\partial=l\ddot{u}$) and valleys ($t^h\partial=?\hat{o}$) are classified by $l\ddot{u}$ 'CL.mountain' and $?\hat{o}$ 'CL.valley', respectively.

Two other auto-classifiers classify water, and a third classifies watering cans. Example (20) illustrates the auto-classifier for rivers.

- (20) $l\acute{i}$ $l\acute{i}$ $t^h\hat{s}$ $t^h\acute{i}$ du $kl\hat{s}$ $l\partial=$ $kl\hat{s}$ $d\hat{s}?$
 go go reach water be.big river one CL.river more
 'Going, they reached another large river.'

In (20), the general noun head $t^h\acute{i}$ 'water' takes two modifiers. The stative verb du 'be.big' specifies the size of the body of water, while the noun modifier $kl\hat{s}$ 'river' indicates the large body of water is a river. The auto-classifier $kl\hat{s}$ 'CL.river' classifies the noun and its modifiers.

The other water noun and its auto-classifier is $kw\acute{i}$ 'swamp', as in (21).

- (21) $d\epsilon$ $kw\acute{i}$ $p^h\hat{a}'du$ $l\partial=$ $kw\acute{i}$
 see swamp be.very.big one CL.swamp
 '(She) saw a very big swamp.'

In (21), the noun phrase comprises the head $kw\acute{i}$ 'swamp' with its modifiers $p^h\hat{a}'du$ 'be.very.big' and $l\partial=kw\acute{i}$ 'one swamp'.

The watering can classifier comes from the noun $t^h\hat{s}$ 'canister', as in (22).

- (22) $p^h\hat{s}$ $t^h\hat{a}$ $t^h\acute{i}t^h\hat{s}$ $k^h\acute{i}$ $t^h\hat{s}$ $l\acute{i}$ $t^h\hat{a}i$ $w\acute{e}$
 seize ascend water.canister two CL.canister go return 3.SUBJ
 '(He) picked up the two water canisters and went back...'

In (22), the head $t^h\acute{i}t^h\hat{s}$ 'water.canister' is a noun compound that comprises the nouns $t^h\acute{i}$ 'water' and $t^h\hat{s}$ 'canister'. It is $t^h\hat{s}$, the head of the compound, that functions as the classifier.

The other auto-classifiers in the corpus are $m\acute{s}$ 'clay.jar/CL.clay.jar', $t^h\partial=x\acute{o}'x\acute{o}?$ 'basket/CL.basket', $u\acute{y}\tilde{e}$ 'village/CL.village', $t\epsilon\tilde{s}$ 'place/CL.place', and $kl\hat{a}?$ 'place/CL.place'.

5.3 Summary of other classifier types

In addition to sortal and mensural classifiers, three other types of classifiers occur in N. Pwo: specific classifiers, number bases, and auto-classifiers. Specific classifiers classify one noun referent, while number base classifiers combine with the numerals 'one' to 'nine' to form larger numerals. The number base form for 'ten' is descended from Proto Karen and occurs in N. Pwo, Sgaw Karen, Kayan, and Eastern Kayah. Otherwise, number bases vary due in part to borrowing from other languages. N. Pwo also has a small inventory of auto-classifiers in which a noun head or part of a noun compound head functions as a classifier.

6 Classifiers in specialized argument structures

In N. Pwo, classifiers occur in some interrogative expressions (§6.1). Classifiers also occur in nominals that express indefinite reference (§6.2).

6.1 Interrogative expressions

N. Pwo interrogative expressions comprise a nominal and the question particle $l\hat{e}/l\hat{s}$, which fill argument positions within the clause. Interrogative expressions containing classifiers query locations (§6.1.1), quantity (§6.1.2), and kinds (§6.1.3).

6.1.1 Locations

Two classifiers occur in location interrogative expressions: the partitive mensural classifier *kʰó* ‘CL.part’ and the auto-classifier *tɛ̃* ‘CL.place’.

kʰó lê is the most frequent location interrogative expression in the corpus. It occurs with the existential predicate *ʔo* (23) and motion predicates (24).

- (23) *nə=mù* *nə=pʰɛ̃* *ʔə=uyê* *ʔo* *kʰó* *lê*
 2.POSS=mother 2.POSS=father 3.POSS=village exist **CL.part** **QUES**
 Lit. ‘Your mother your father their village exist where?’
 ‘Where is your mother and father’s village?’

- (24) *tɛ̃pʰuxwi* *nə=* *lí* *kʰó* *lê*
 male.orphan 2.SUBJ go **CL.part** **QUES**
 “Orphan, where are you going?”

In (23) and (24), *kʰó lê* ‘where’ fills the oblique position of the clause without a preposition, noun head, or quantifier.

In contrast, *tɛ̃* ‘CL.place’ heads the object of the preposition noun phrase within a prepositional phrase (25).

- (25) *nâ* *sədê* *kʰlâi* *tɛ̃hâ* =âʔ *nə=* *dɛ* *nì* *lũ*
 Ms. youngest speak reply 3.OBJ 2.SUBJ see get thread

pʰi *lə=* *tɛ̃* *lî*
at **one** **CL.place** **QUES**
 ‘Youngest Child answered her, “Where did you get the thread?”’

In (25), the classifier *tɛ̃* ‘CL.place’ heads the object of the preposition phrase, taking the quantifier *lə=* ‘one’ and the question particle *lî* without a noun head.

At this point, the usage differences between these two locative interrogative phrases are not clear, although in the corpus, the *tɛ̃* interrogative phrase occurs with the existential verb, motion predicates and other dynamic verbs, such as *mí* ‘sleep’ and *ʔãxí* ‘seek’, while the *kʰó* interrogative phrase only occurs with existential and motion predicates.

6.1.2 Quantity

N. Pwo speakers question quantities with the quantifier *xwì* ‘how.many’, a classifier representing the quantified entity, and the question particle *lê*. The corpus includes both human (26) and time (27) quantity queries.

- (26) *nə=pʰu* *ʔo* *xwì* *uyê* *lê*
 2.POSS=offspring exist **how.many** **CL.human** **QUES**
 Lit. ‘Your offspring exist how many humans?’
 ‘How many children do you have?’

- (27) *kə=* *pʰâʔ* *loʔ* *sâʔ* *xwì* *mõ* *lê*
 1P.SUBJ appoint together heart **how.many** **CL.hour** **QUES**
 Lit. ‘We appoint together how many hours?’
 ‘What time did we make our appointment?’

As with the location interrogative phrases, *xwì* ‘how.many’ interrogative phrases occur without a noun head with both sortal and mensural classifiers.

6.1.3 Kinds

A nominalized form of the classifier $m\hat{e}/m\hat{e}$ ‘CL.kind’ is used with a question particle for ‘what kind’ questions, as in (28).

- (28) $\text{ɔ̃}t\hat{e}c\hat{a}^?$ $w\acute{e}$ $m\grave{u}p^{h\acute{e}}$ $n\partial=$ $m\hat{e}$ $t^{h\partial}=m\hat{e}$ $l\hat{s}$
 ask 3.OBJ mother.father 2.SUBJ do NMLZ_{thing}=CL.kind QUES
 Lit. ‘(She) asked them, “Mother (and) Father, you do what kind?”
 ‘(She) asked them, “Mom and Dad, what did you make?”’

In (28), the classifier $m\hat{e}$ ‘CL.kind’ takes the nominalizer $t^{h\partial}=$, which comes from the noun $t^{h\partial}$ ‘thing’, with the question particle $l\hat{s}$. This structure fills the direct object position of the clause. The daughter is asking her parents about the kind of food they have prepared. However, we only know this because of the discourse context.

The $t^{h\partial}=m\hat{e}$ Q structure can also refer to a person, as in (29).

- (29) $\text{ɔ̃}\partial=p^{h\acute{t}}$ $l\partial=$ $u\acute{y}\acute{e}$ $d\hat{\partial}$ $k^{h\acute{t}}l\hat{a}i^?$ p^{hu} \hat{s} $me^?$
 3.POSS=grandmother one CL.human TOP turtle be.small Oh! be_{be.true}
 $t^{h\partial}=m\hat{e}$ $n\hat{e}$ $m\partial=$ $\text{ɔ̃}e$ $n\hat{e}$ $l\partial=$ $m\hat{e}$ $t\acute{e}\hat{a}i^?$ $d\acute{e}$
 NMLZ_{thing}=CL.kind right? IRR love 2.OBJ one CL.kind say d\acute{e}
 ‘His grandmother (answered), “Small turtle, who will love you?”’

In (29), a small turtle wants to marry a human girl. The question structure $t^{h\partial}=m\hat{e} n\hat{e}$ fills the subject position of the transitive clause, conveying the sense ‘who’ with no specific referent in mind. Without an interrogative particle, $t^{h\partial}=m\hat{e}$ functions as an indefinite reference form.

6.2 Indefinite reference

N. Pwo speakers utilize classifiers, with or without a noun head or quantifier, to express indefinite reference to anything or nothing, everything, everyone or no one, everywhere or nowhere, whenever or at no time.

The nominalized classifier $m\hat{e}$ ‘CL.kind’ conveys the idea of ‘anything’ (30), which is the only indefinite reference structure that does not require a quantifier.

- (30) $n\partial=$ $me^?$ $d\acute{e}$ $t^{h\partial}=m\hat{e}$ $t^{h\partial}=m\hat{e}$ $p^{h\acute{t}}$ $l\partial=uy\acute{i}$ \hat{s}
 2.SUBJ be_{be.true} see NMLZ_{thing}=CL.kind NMLZ_{thing}=CL.kind seize don’t OK?
 ‘If you see anything, don’t touch it, OK?’

In (30), the nominalizer $t^{h\partial}=$ in $t^{h\partial}=m\hat{e}$ is optional. Reduplication of this structure indicates that the actor is looking around at a variety of things. Also, the only difference between an interrogative structure with $t^{h\partial}=m\hat{e}$ in (28) and (29) is the presence of a question particle.

A noun phrase with the quantifier $k\hat{u}^?$ ‘every’ and the relevant classifier expresses indefinite reference to ‘everything’ (31) and ‘everywhere’ (32).

- (31) $p^{h\acute{t}}\hat{l}\hat{o}$ $\text{ɔ̃}\partial$ $w\acute{e}$ $\text{ɔ̃}\partial=k^{hu}$ $t\acute{e}\acute{e}$ $w\acute{e}$ $m\hat{e}$ $t^{h\partial}$ $k\hat{u}^?$ $\text{ɔ̃}\partial=m\hat{e}$
 person exist 3.OBJ 3.POSS=head use 3.OBJ do thing every 3.POSS=CL.kind
 ‘Humans exist on their heads and use them (elephants) to do things of every kind (everything).’

In (31), the noun phrase $t^{h\partial} k\hat{u}^? \text{ɔ̃}\partial=m\hat{e}$ comprises the noun head $t^{h\partial}$ ‘thing’ with the quantifier $k\hat{u}^?$, and the nominalized classifier $\text{ɔ̃}\partial=m\hat{e}$.

A place classifier is part of the structure expressing ‘everywhere’ (32).

- (32) $uy\acute{e}$ $\text{ɔ̃}\partial=w\acute{e}$ $j\grave{i}l\acute{e}i^?j\grave{i}l\acute{e}$ $kem\acute{a}$ $p^{h\acute{t}}\hat{l}\hat{o}$ $k\hat{u}^?t\acute{e}\acute{e}k\hat{u}^?t\acute{e}\acute{e}$ $uy\acute{e}$ $t^{h\partial}=b\hat{o}t^{h\partial}=t^{h\acute{a}}$
 finish 3.SUBJ send.letter give person every.CL.place come NMLZ_{thing}=laud
 ‘Then, she sent letters to have people everywhere come make merit.’

In (32), the noun phrase $p^h l\hat{o} k\hat{u}^? t\epsilon\tilde{\delta} k\hat{u}^? t\epsilon\hat{o}$ refers to people everywhere. In this noun phrase, the noun head is $p^h l\hat{o}$ ‘person’. It is modified by the classifier elaborate expression $k\hat{u}^? t\epsilon\tilde{\delta} k\hat{u}^? t\epsilon\hat{o}$ ‘everywhere’. The elaborate expression comprises the quantifier $k\hat{u}^?$ ‘every’ in slots one and three, the classifier $t\epsilon\tilde{\delta}$ ‘CL.place’ in slot two, and the rhyming form $t\epsilon\hat{o}$, with no independent meaning, in slot four.

The quantifier $n\hat{a}$ ‘not.even.one’ and the relevant classifier convey negative indefinite reference to nothing (33), no one (34), and at no time (35).

- (33) $t\epsilon\hat{o}= m\hat{\epsilon} t^h\hat{\delta} n\hat{a} m\hat{\epsilon}^? \text{?e}^?$
 1.SUBJ do; want **thing** **not.even.one** **CL.kind** NEG
 Lit. ‘I want thing not even one kind.’
 ‘I want nothing, or I don’t want anything.’

In (33), N. Pwo employs both a negative noun phrase $t^h\hat{\delta} n\hat{a} m\hat{\epsilon}^?$ ‘nothing’ and the final negation marker $\text{?e}^?$ to indicate that the speaker wants nothing. In the noun phrase, the noun head is $t^h\hat{\delta}$ ‘thing’, with the quantifier and classifier modifiers $n\hat{a} m\hat{\epsilon}^?$ ‘not even one kind’.

With a change in classifier, it is possible to refer to ‘no one’, as in (34).

- (34) $l\hat{o}= s\hat{\epsilon} n\hat{a} u\hat{\epsilon} l\hat{a} b\epsilon x\hat{o}^?$
 NEG sound **not.even.one** **CL.human** at.all NEG EMPH
 Lit. ‘Not sound not even one human at all!’
 ‘No one made a sound!’

In (34), a group of sailors are speechless after losing all their goods and freedom. The classifier phrase $n\hat{a} u\hat{\epsilon}$ ‘not even one human’, along with the negation pair $l\hat{o}=$ and $b\epsilon$, indicate that no one made a sound. Since these sailors were referenced earlier in the discourse, no overt noun head is required.

A $n\hat{a}$ structure can also indicate ‘at no time’, as in (35).

- (35) $[s\hat{u} d\epsilon s\hat{a}^? t\epsilon\hat{i}]_{CL1} [l\hat{o}= d\epsilon b\epsilon t\epsilon\hat{i} n\hat{a} p^h\hat{a} b\epsilon]_{CL2}$
 desire see heart money NEG see strike money **not.even.one** **CL.time** NEG
 Lit. ‘(He) desire see heart money, not see strike money not even one time.’
 ‘(He) wanted to see money but had never seen money even one time.’

In the second clause of (35), the time classifier phrase $n\hat{a} p^h\hat{a}$ ‘not even one time’ with the negation pair $l\hat{o}=$ and $b\epsilon$ indicates that the orphan had never seen money before. In N. Pwo discourse, time classifiers typically occur without a noun head.

6.3 Summary of specialized argument structures

Table 10 presents a summary of the classifier argument structures discussed in this section.

Table 10: N. Pwo classifier specialized arguments

Interrogative expressions	Structure
‘where’	$k^h\hat{o} + l\hat{\epsilon}$ ‘CL.part’ + QUES’
‘where’	$(p^h\hat{i}) + l\hat{o}=t\epsilon\tilde{\delta} + l\hat{o}$ ‘at +one + CL.place + QUES’
‘how much’	$xw\hat{i} + \text{Classifier} + l\hat{\epsilon}$ ‘how.many + Classifier + QUES’
‘what; who’	$t^h\hat{\delta}=m\hat{\epsilon} + l\hat{\epsilon}$ ‘NMLZ _{thing} =CL.kind + QUES’
Indefinite reference	Structure
‘anything’	$(t^h\hat{\delta}=)m\hat{\epsilon}$ ‘NMLZ _{thing} =CL.kind’
‘everything’	$t^h\hat{\delta} k\hat{u}^? \text{?}\hat{o}=m\hat{\epsilon}$ ‘thing + every + (3.POSS=)CL.kind’
‘nothing’	$t^h\hat{\delta} n\hat{a} m\hat{\epsilon}$ ‘thing + not.even.one + CL.kind’
‘everywhere’	$k\hat{u}^? + \text{Classifier}_a + k\hat{u}^? + \text{Classifier}_b$ ‘every + CL.place + every + rhyming form’
‘no one’	$n\hat{a} u\hat{\epsilon}$ ‘not.even.one + CL.human’
‘at no time’	$n\hat{a} p^h\hat{a}$ ‘not.even.one + Time Classifier’

All the classifier interrogative phrases include the question particle *lê/lô* and a classifier. However, these structures do not always include a quantifier or noun head. Without the question particle, *(tʰə=)mê* is used for indefinite reference. The quantifier *kû* ‘every’ occurs in ‘everything’ and ‘everywhere’ indefinite structures, while the quantifier *nâ* ‘not.even.one’ occurs in negative indefinite structures. Often, a noun head occurs but is not required depending on the discourse context.

7 Classifiers in adverbial phrases

Classifiers also figure in adverbial phrases that communicate more detail about an event. These phrases indicate distributed actions or objects (§7.1) and temporal contexts (§7.2).

7.1 Distributed actions and objects

Adverbial phrases that include classifiers indicate repeated actions by a single actor (as in 35) or parallel actions of multiple actors (as in 36).

- (35) *ʔə=mù* *ʔə=pʰè* *lî* *uêloʔ* *wé* *lə=* *tɛʔ* *lə=* *blɛ*
 3.POSS=mother 3.POSS=father go treat 3.OBJ **one** **CL.place** **NEG** **recover**

lə= *tɛʔ* *lə=* *blɛ*
one **CL.place** **NEG** **recover**

‘His mother and father went from place to place for a cure (traditional healer), but (the child) did not recover.’

In (35), the complex predicate *lî uêloʔ* ‘go treat’ indicates the action of a child’s mother and father. However, it is the right peripheral expression *lə=tɛʔ lə=blɛ* ‘one place not recover’ that indicates that the child’s parents went from place to place without finding a cure for their child’s illness. The first two syllables *lə=tɛʔ* ‘one CL.place’ refers to the place the parents went, and the last two syllables *lə=blɛ* ‘not recover’ encode the situation they encountered at the place. Reduplicating this structure indicates that they went to more than one place looking for a cure.

A classifier with a verb indicates the parallel actions of multiple actors. The first syllable numeral classifier refers to the actor, and the second syllable verb refers to the actor’s activity (36).

- (36) *lî* *klâ* *nì* *wé* *uétʰâi* *jûʔ* *wé* *uê* *jûʔ*
 go slash get 3.OBJ return shoulder 3.OBJ **CL.human** **shoulder**

uê *jûʔ*
CL.human **shoulder**

‘They went, slashed and got it and returned shouldering it, each person carrying a load.’

In (36), two people have gone to get some switches that they carry home on their shoulders. The reduplicated classifier and verb combination, *uê jûʔ* ‘CL.human, shoulder’ indicates that each person shouldered the switches they had cut.

Changing the second-syllable verb to another numeral classifier communicates the distribution of objects, as in (37).

- (37) *ʔə=wé* *dɛ* *kelâ* *pʰlô* *ʔə=tɛi* *uê* *ɛú*
 3.SUBJ dɛ give person 3.POSS=money **CL.human** **CL.10.satang**

uê *ɛú* *kûʔ* *ʔə=uê* *swâʔ*
CL.human **CL.10.satang** every 3.POSS=CL.human finished
 ‘She gave every person 10 satang apiece.’

In (37), *uê ɛú* indicates that every person referenced by the human classifier *uê* received a 10-satang coin, referenced by *ɛú*, the classifier for ten-satang coins. The repetition of this phrase indicates that many people received the money. In addition, the final classifier phrase *kûʔ ʔə=uê* ‘every person’ further emphasizes that every person received a coin.

7.2 Temporal information

Temporal adverbial phrases utilize classifiers to indicate precise time and approximate time. For precise time, classifier adverbial phrases can provide information about the total time of an event, repeated events, and habitual events. The total duration of an event expressed in an adverbial phrase is illustrated in (38).

- (38) *lòmí* *kʰè* *nwé* *ɥɛ* *nwé* *ɥô*
 rockpile snap **seven** **CL.night** **seven** **CL.morning**
 ‘The rockpile broke up for seven days and nights.’

The total time adverbial phrase in (38) consists of two coordinate classifier phrases without a noun head or a coordinate conjunction.

A reduplicated classifier phrase indicates a repeated event over a long time in (39).

- (39) *lə=* *nî* *lə=* *nî* *lə=* *sí*
one **CL.day** **one** **CL.day** NEG die
 ‘Day after day, (they) did not die.’

In (39), a classifier phrase appears without a noun head to provide temporal information about someone not dying. The repetition of the classifier phrase indicates the repetition of the event.

With a change of quantifier, a habitual event is expressed in (40).

- (40) *teái?* *teə=mù* *ní* *teə=pʰè* *lí* *pʰe?* *nā*
 say 1.POSS=mother and 1.POSS=father go weed grass
kû? *nê* *kû?* *nê*
every **CL.day** **every** **CL.day**
 ‘(He) said, “My mother and my father went weeding grass every day.”’

In (40), the quantifier *kû?* ‘every’ with *nê* ‘CL.day’ without a noun head indicates a habitual behaviour that occurs every day. The reduplication of the classifier phrase indicates the repetition of the event.

To express an approximate amount of time, paired classifier phrases occur with different numerals (41).

- (41) *ʔo* *ʔo* *ʔo* *pʰɔ̃xwbi?* *kʰí* *sá* *sá* *sá*
 exist exist exist pass **two** **CL.night** **three** **CL.night**
 ‘Two or three nights passed.’

In (41), the reduplicated existence predicate *ʔo* indicates the passage of time. The numerals in the approximate time adverbial phrase show the range of time units represented by the classifier *sá* ‘CL.night’.

7.3 Summary of classifier adverbial phrases

In all the adverbial phrases that provide event information, classifiers head phrases with or without a quantifier and no noun head. Table 11 summarizes the adverbial phrases that contain classifiers illustrated in this section.

Table 11: N. Pwo classifier adverbial phrases

Adverbial effect	Structure
Repeated actions of a single actor	Numeral + Classifier + NEG + Verb
Parallel actions of multiple actors	Classifier + Verb
Distributed objects to multiple entities	Entity Classifier + Object Classifier
Total event time	Numeral _a + Classifier _a + Numeral _a + Classifier _b
Repeated event	Numeral + Time Classifier
Habitual event	<i>kû?</i> ‘every’ + Classifier
Approximate event time	Lower range numeral + Classifier _a + Upper range numeral + Classifier _a

8 Conclusion

In N. Pwo and other Karenic languages, the classifier phrase follows the noun head. However, the demonstrative follows the classifier in N. Pwo and Sgaw Karen, and the demonstrative precedes the classifier phrase in Kayan and Eastern Kayah. Furthermore, demonstratives can directly modify noun heads in N. Pwo, Sgaw Karen, and Kayan, while in Eastern Kayah, demonstratives are modifiers of classifier phrases.

The N. Pwo sortal classifier inventory is limited, with one human classifier, one four-footed animal classifier, two plant classifiers, three dimensional classifiers, and two function classifiers.

The mensural inventory is more extensive and includes the following:

- Standard measures (money amounts, lengths, volume, and time).
- Non-standard measures (arrangements, event enumeration, containers, and places).
- Collective measures (groups and kinds).
- Partitive measures (pieces and parts).

The remaining classifier categories include:

- Specific classifiers that only classify one noun referent.
- Number bases that occur with numerals 1–9 to form larger numerals.
- Auto-classifiers where the noun head functions as its own classifier.

Classifiers also occur in specialized argument structures, including interrogative expressions for ‘where’, ‘how much’, ‘what kind’, and ‘who’. Classifiers also occur in indefinite reference structures for ‘anything’, ‘everything’, ‘everywhere’, ‘nothing’, ‘no one’, and ‘at no time’. Two quantifiers that figure in these indefinite phrases are *kù* ‘every’, and *nã* ‘not.even.one’. Adverbial phrases containing classifiers express distributed actions and objects as well as total, repeated, habitual, and approximate times.

The information on numeral classifiers in this paper is only a start. More classifiers exist in conversation and other discourse genres. Furthermore, the function of classifiers in discourse requires investigation, especially functional differences between sortal and mensural classifiers, meaning differences between classified nouns and bare nouns, and the triggers for pronoun- and classifier-headed nominals.

References

- Adams, Karen L. & Conklin, Nancy F. 1973. Toward a theory of natural classification. In Corum, C. W. & Smith-Stark, T. C. & Weiser, A. (eds.), *Ninth Regional Meeting of the Chicago Linguistic Society*, vol. 9, 1–10. Chicago: Chicago Linguistic Society.
<https://www.ingentaconnect.com/contentone/cls/pcls/1973/00000009/00000001/art00001>
- Adams, Karen Lee. 1989. *Systems of numeral classification in the Mon-Khmer, Nicobarese and Aslian subfamilies of Austroasiatic* (Pacific Linguistics, B). Vol. 101. Canberra: Department of Linguistics, Research School of Pacific Studies, The Australian National University.
- Aikhenvald, Alexandra Y. 2000. *Classifiers: A typology of noun categorization devices*. Oxford/New York: Oxford University Press.
- Becker, Alton. 1975. A linguistic image of nature: The Burmese numerative classifier system. *Linguistics* 13.165:109–122.
- Bisang, Walter. 1999. Classifiers in East and Southeast Asian languages: Counting and beyond. In Gvozdanovic, Jadranka (ed.), *Numeral types and changes worldwide* (Trends in Linguistics. Studies and Monographs 118), 113–185. Berlin/New York: Mouton de Gruyter.
- Burling, Robbins. 1965. How to choose a Burmese numeral classifier. In Spiro, Melford E. (ed.), *Context and meaning in cultural anthropology*, 243–264. New York: Free Press.
- Craig, Colette G. 1992. Classifiers in a functional perspective. In Fortescue, Michael & Harder, Peter & Kristoffersen, Lars (eds.), *Layered structure and reference in a functional perspective* (Pragmatics & Beyond New Series 23), 277–301. Amsterdam: John Benjamins Publishing Company.
- Croft, William. 1994. Semantic universals in classifier systems. *Word* 45.2:145–171.
- Dawkins, Erin & Phillips, Audra. 2009a. A sociolinguistic survey of Pwo Karen in northern Thailand. Chiang Mai, Thailand: Payap Linguistics Institute.
<https://drive.google.com/file/d/1nwZxB3fmmN5ApC3uK8oqLCyVmiOmRKJo/view?usp=sharing%20Sociolinguistic%20Survey%20of%20Pwo%20Karen%20in%20Northern%20Thailand.pdf>

- Dawkins, Erin & Phillips, Audra. 2009b. An investigation of intelligibility between West-Central Thailand Pwo Karen and Northern Pwo Karen. Chiang Mai, Thailand: Payap Linguistics Institute.
<https://drive.google.com/file/d/1TN50tJAAshAJqDuO8zuBrysanjLIL5MG/view?usp=sharing>
- Enfield, N. J. 2007. *A grammar of Lao* (Mouton Grammar Library 38). Berlin/New York: Mouton de Gruyter.
- Gerner, Matthias. 2006. Noun classifiers in Kam and Chinese Kam-Tai languages: Their morphosyntax, semantics and history. *Journal of Chinese Linguistics* 34.2:237–305.
- Greenberg, Joseph H. 1972. Numeral classifiers and substantival number: Problems in the genesis of a linguistic type. *Working Papers on Language Universals* (9).
- Grinevald, Colette. 2000. A morphosyntactic typology of classifiers. In Senft, Gunter (ed.), *Systems of nominal classification*, 50–92. Cambridge: Cambridge University Press.
- Jones, Robert B. 1970. Classifier constructions in southeast Asia. *Journal of the American Oriental Society* 1–12.
- L-Thongkum, Theraphan. 2011. Numerals and classifiers in Modern Karenic languages and Proto-Karen. Mysore, India. Presented at the 44th international Conference on Sino-Tibetan Languages and Linguistics, Mysore, India. https://www.arts.chula.ac.th/~ling/Karen/pages/presents-conference/3-Numerals_and_Classifiers_India_Theraphan.pdf
- Luangthongkum, Theraphan. 2019. A view on Proto-Karen phonology and lexicon. *Journal of the Southeast Asian Linguistics Society* 12.1:i–lii.
- Manson, Kenneth Neil. 2010. *A grammar of Kayan, a Tibeto-Burman language*. Melbourne: La Trobe University. Ph.D. dissertation.
- Ratanakul, Suriya. 2001. Numeral classifiers in Sgaw Karen. In Adams, Karen L. & Hudak, Thomas John (eds.), *Papers from the Sixth Annual Meeting of the Southeast Asian Linguistics Society*, vol. 6, 299–318. Tempe, Arizona: Arizona State University, Program for Southeast Asian Studies.
<http://sealang.net/sala/seals/htm/6/SURIYARatanakul.htm>
- Renard, Ronald D. 1980. *Kariang: History of Karen-T'ai relations from the beginnings to 1923*. Honolulu: University of Hawai'i. Ph.D. dissertation.
- Saul, Janice E. 1964. Classifiers in Nung. *Lingua* 13:278–290.
- Solnit, David B. 1997. *Eastern Kayah Li: Grammar, texts, glossary*. Honolulu: University of Hawai'i Press.

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