

A comparative look at Yao numerical classifiers

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Summary

This paper extends Donald R. Goral's (1978) descriptive analysis of numerical classifiers (CLs) found in several Southeast Asian languages to CLs found in Yao. What is presented is a necessary first step in our understanding of the syntax and semantics of Yao CLs. As is perhaps expected, Yao CLs are in many ways similar to the CLs found in neighboring languages. However, there are certain syntactic and semantic features that are peculiar to Yao. While the syntax of Yao CLs is relatively straightforward, they represent a rich and still not completely explored arena for semantic analysis. The appendices list eighty-one Yao CLs along with main selectional criteria and a beginning attempt at semantic classification. These lists should allow further comparisons between Yao CLs and those of neighboring languages.

Description of the data

These data were gathered from a native speaker of Yao who grew up in Northern Laos, in the village of Sam Sao, Houa Khong province.¹ This dialect is located in the same region as the Yao who were the sources for Lombard and Purnell's *Yao - English Dictionary*. These people, the Highland Yao, are distributed not only through Northern Laos, but have also migrated into Northern Thailand, and live in their greatest numbers in Southeast China. This dialect has seven tones - five live tones, and two dead.² The following symbols will be used for these tones:

<i>Live Tones:</i>	<i>Dead Tones:</i>
High-level: 55 □	High-level: 5 □
Mid-level: 33 □	
Low-level: 11 □	Low-level: 1 □
Falling: 51 □	
Rising: 15 □	

I SYNTAX

I-A General remarks on Yao syntax

Before we turn to Yao classifiers, some general remarks on Yao syntax are in order. These remarks will be limited to the basic constituent order, and areal syntactic features.

Word order in Yao is unique among the Southeast Asian languages. Like Thai, Yao uses prepositions and noun-adjective constructions, and like Chinese, it puts the head noun after the genitive attribute (see Figure 1 following; cf. Goral, Appendix 1; Purnell 1972, pp. 13-25).

Figure 1:
Sentence word order in Yao, Chinese, and Thai

Yao (and Meo)	SVO	Prepositions	Genitive-N	N-Adjective
Chinese	SVO	Postpositions	Genitive-N	Adjective-N
Thai	SVO	Prepositions	N-Genitive	N-Adjective

The following examples illustrate Yao word ordering:

SVO: y³³iə p¹⁵iin y³³iə ñ³³ɛɛ ñ⁵¹aan
 I{S} hide{V} [I+poss.] money{O}
 I hid my money.

Genitival: n⁵¹in ñ³³ɛɛ h⁵¹ee h³³aan
 {he+poss.} shoe lace
 his shoelace

Adjectival: c⁵⁵uu k⁵⁵iə
 dog black
 black dog

Prepositional: k¹¹a-d⁵⁵iə m⁵⁵iə
 in/under grass
 in the grass

Major Southeast Asian areal syntactic features listed in Matisoff (1978:25) are well represented in this dialect of Yao:

1.) Reduplication as an adverbializing process:

c ¹ 5aaw s ¹ i?	<i>red egg</i>
c ¹ 5aaw s ¹ i? s ⁵ i?	<i>very red egg</i>

2.) Sentence final particles for expressing "propositional attitudes", i.e. emotions of the speaker. These particles are frequent in Yao, and are quite difficult to fully describe. Particles such as ¹a?, ñ³3εε, and k³3ɔɔ occur at the end of declarative sentences. Their precise function has not yet been fully assessed.

3.) Aspect, not tense, as the primary inflectional category for verbs:

55m	k ⁵ 1uu-k ¹ 5oo	ts55əw	c55iən	nh ¹ 5aan
the	old woman	to cook{+prog.}	rice	
<i>The old woman is/was/will be cooking rice.</i>				

4.) Free topicalizability of noun-phrases, with a tendency towards topic prominence. While there is not sufficient space in this piece to fully demonstrate topicalizability in Yao, the following example shows a representative topicalized sentence:

w ³ 3uə	33ii	t ⁵ 1aw	m ⁵ 1iən	ɣ ¹ iət	t ⁵ 1aw	[m ⁵ 1iən]	ʔ ⁵ uət	33ii	t ⁵ 1aw	py55aa
those	two CL	people	one CL	{deleted}	break	two CL	sticks			
<i>As for those two people, each one broke two sticks.</i>										

5.) The nominalization of whole sentences, without their being embedded into any larger unit. The Yao particle ñ³3εε, which appears in genitive and relative clause constructions, may also appear at the end of a sentence, where it has a nominalizing function.

In summary, Yao shows the major areal syntactic features common to Southeast Asian languages, yet its basic word order is unlike that of any other language in the area, except for its sister language, Meo.

I-B. A syntactic definition of Yao numerical classifiers

Goral's syntactic definition of Vietnamese numerical classifiers is useful in describing Yao classifiers. In Yao, a classifier is *any lexical item which can appear in the frame Num + ____ + N, where Num=numeral and N=noun* (cf. Goral: p.6). Yao CLs constitute a subclass of nouns which appear in the above frame to specify a certain attribute of the following noun. Through this explicitly stated attribute the following noun can be counted. Furthermore, without the presence of the CL, the noun cannot be counted. Thus, some CLs not only *can* appear in the above frame, but *must* appear

(except for a very few exceptions to be explained below). For this reason, the above definition is useful in predicting the obligatory occurrence of CLs (and it is useful in eliciting CLs). However, this does not fully describe the range of noun-phrase frames where CLs will occur, nor the process of selecting CLs. Of course this definition is a wholly syntactic one, and CLs are primarily semantic in their function. In short, this definition is certainly very useful in eliciting which lexical items can and cannot be used as classifiers. So it approaches descriptive adequacy. It does not, however, define the entire distribution nor the selectional motivation for CLs, i.e. it does not provide explanatory adequacy. Goral's definition does make one thing certain concerning the distribution of CLs: *their obligatory presence in numerative noun-phrases*.

There are two further stages in the analysis of CLs in any language beyond a syntactic definition such as the above. The first stage is a functional semantic description of CLs.³ Studies show that CL systems can be very complex in the interaction between their syntax and semantics, and that the semantics of CL systems can be highly culture-specific. The second stage is more problematic: it is doubtful that a fully adequate description of numerical classifiers can be made without recourse to a satisfying explanation for their existence. Why are they found in such obligatory profusion in certain languages and not at all or vestigially in others? Such an explanation rests uncomfortably on extra-linguistic (psychological, philosophical, etc.) evidence. Until someone uncovers the reason(s) for the existence of complex CL systems and their semiotic function, CLs will continue to evade any explanatorily adequate analysis. This caveat is not given to excuse the shortcomings of the following analysis of Yao CLs, but merely to frame the information provided in the context of the task that lies ahead. For the purposes of this paper, Goral's definition of CLs, and some further notes on the syntactic and semantic features of various Yao CLs, will allow for comparisons between Yao and other Southeast Asian languages.

I-C The basic structure of the Yao numerative phrase

The following schema (Figure 2) shows the basic structure of the Yao numerative and/or demonstrative noun-phrase.

Figure 2:
Basic structure of Yao numerative phrase

+ preposition	+ Demonstrative	+ Number	+ CL	N O U N	+ A D J E C T I V E
		- Number	+ CL		
- preposition	+ Demonstrative	+ Number	+ CL		
+ preposition	- Demonstrative	+ Number	+ CL		
		- Number	- CL		

Notice that Yao preposes demonstratives and numeral+CLs, but postposes adjectives. By this, Yao differs from all other Southeast Asian languages (See Jones p. 6). Thai postposes demonstratives, numeral+CLs, and adjectives. Meo preposes numeral+CLs and postposes adjectives and demonstratives. Modern Chinese preposes demonstratives, numeral+CLs, and adjectives (See Fig. 3 below).

Figure 3: 4
Comparisons of numerative phrase structures

Yao:	Dem 	Num + CL 	NOUN 	Adj
Chinese:	Dem	Num + CL	Adj	NOUN
Meo:	Num + CL	NOUN	Adj	Dem
Thai:	NOUN	Adj	Num + CL	Dem
Lahu:	NOUN	Adj	Dem	Num + CL

The following Yao phrase shows the complete basic numerative phrase structure:

n55əy-t15əy py33ee t51aw c55uu c5iə?
 these four CL dog black
these four black dogs

In Yao prepositional phrases, the CL does not obligatorily occur after a demonstrative. A Yao noun phrase can thus exhibit the following structure:

PREP [+Dem.] [-Num.] [-CL] NOUN

In all other NPs, *a demonstrative must be followed by a CL*. It should also be noted that the number *one*, y1iət, can be omitted from the noun-phrase, leaving a structure such as the following:

[-Dem.] [-num] [+CL] NOUN

e.g. t51aw d51aw-m15aaw
 CL tiger
one tiger

Apart from the understood number *one*, the head-noun of an NP can never be modified by a classifier without the co-occurrence of either a numeral or a demonstrative.⁵ The role of the CL in prepositional phrases is apparently linked to the definiteness of the phrase and to the emphasis placed on the phrase.

I-D The use of CLs in anaphoric constructions

Goral's remarks on the anaphoric behavior of CLs in Vietnamese (pp.12-13) also hold for Yao CLs. As he pointed out, CLs can not stand alone when these serve as anaphors. This means that CLs never stand alone, since they either modify nouns or serve as anaphors for nouns in conjunction with a determiner. As in Vietnamese, *Yao CLs require a determiner when the CL serves as an anaphor*. The following sentences show various anaphoric constructions in Yao:

- D1) mh³³əy h⁵⁵aa dz¹¹ɔm y³³ie ñ¹¹an c⁵⁵iən w³³uə dz¹¹ɔm kh⁵⁵uu
 rice which CL I eat {+prog.} that CL taste
 [for bowlsful] [for bowlsful]
 h³³aa
 good
 The bowl of rice I am eating tastes good.
- D2) l⁵ut-m³³ee h⁵⁵aa n³³ɔm m⁵¹iŋ ʒ³³aan-b³³aan-ʒ¹¹ii w³³uə n³³ɔm
 bus which CL go Albany that CL
 [for bus] [for bus]
 t¹¹on
 to be late
 The bus that goes to Albany is late.
- D3) h⁵⁵aa p³³uən s³³əw m⁵¹əy t¹¹oo c⁵⁵iən... w³³uə p³³uən
 which CL book you to read{+prog.} that CL
 Which book are you reading?...That one.
- D4) ʒ⁵m k⁵¹uu-k¹⁵oo ts⁵⁵əw c⁵⁵iən nh¹⁵aan w³³uə h⁵⁵aa t⁵¹aw
 the old woman to cook{+prog.} rice that who CL
 Who is the old woman that is cooking rice?

In these examples, and in general, anaphoric CLs are preceded by a determiner. Notice also that the relative particle h⁵⁵aa (homophonous with the interrogative particle) follows the modified noun and precedes its CL, as in D1 and D2 above. To derive this relative clause structure transformationally, the coreferential noun is first moved in front of its CL, and is then replaced by the relative particle.

The question Goral (*op. cit.*) raises as to whether or not anaphoric CLs are CLs proper, or should be considered nouns, arises very seldom in Yao, because Yao CLs are rarely both homophonous and hyponymous/synonymous with nouns. In fact, it is only in the case of temporary measure CLs (see

below) that this problem is really apparent. In D1, the CLdz¹¹ɔm is a temporary measure CL derived from the noun dz¹¹ɔm, a Yao word for "bowl". One could argue that the second occurrence of dz¹¹ɔm in D1 is, in fact, the noun dz¹¹ɔm and not the CL. The majority of CLs are not homophonous and hyponymous/synonymous with nouns. Yet they do readily occur in similar anaphoric constructions. This supports an argument that perhaps all such anaphora are CLs, and not derived nouns.

I-E The issue of repeaters and CL+CL constructions

In Yao there are no repeaters or partial repeaters. Repeaters and partial repeaters are plentiful in languages such as Thai and Lahu, where the noun precedes the Numeral+CL. In fact, none of the languages of the area which place the Numeral+CL before the noun contain repeaters or partial repeaters. As Goral (*op cit*) posits, "in the languages with numerative phrases of the form Num+CL+Noun: Vietnamese, Chinese, and Indonesian, [and also Yao,] there are no repeaters, supporting the hypothesis that CL+CL sequences, or just sequences of identical morphemes, are generally discouraged" (p. 55). While Yao has no repeaters or partial repeaters, it does permit CL+CL constructions. In Yao, CLs are reduplicated to provide the meaning "every". For example:

ñh ⁵¹ aaŋ ñh ⁵¹ aaŋ	<i>every year</i>
t ⁵¹ aw t ⁵¹ aw	<i>everyone</i>

The reduplicated CLs are in close juncture, producing tone sandhi on the tone of the first syllable(s) of the reduplicated pair(s). The only tones permitted for the first syllable of a reduplicated CL are: falling, if the syllable is live, and low, if the syllable is dead. For example:

nh ⁵¹ ɔy nh ³³ ɔy	<i>every day</i>
t ⁵¹ ɔy t ¹¹ ɔy	<i>every generation</i>
dy ¹ ep dy ⁵ ep	<i>every drop</i>

This tone sandhi dissimilates many of the reduplicated pairs of CLs, but dissimilation is not the underlying factor here, as falling live tones and low dead tones are reduplicated without dissimilation. So Yao does not support the hypothesis that "CL+CL sequences, or just sequences of identical morphemes, are generally discouraged" (*op. cit.*).⁶

I-F Other uses of certain CLs

Certain CLs occur in constructions other than the basic NPs outlined above in I-C. In particular, certain CLs are used to quantify actions, i.e. verbs or deverbal nouns. A few nouns serve as their own CLs, and many nouns can serve as temporary measure CLs.

Yao has a CL dz¹¹un, which is used to count events or repetitions of an action. The semantic difference between an "event" and a "repetition" is the following. An event is a *discrete occurrence*. An event may include a repetitive action. Repetitions are re-occurrences of an action (which may itself be complex) within a *single event*. A syntactic distinction is found between these two uses of dz¹¹un. The following Yao phrases illustrate this:

b ⁵⁵ ʔ ʒʒii dz ¹¹ un	<i>hit twice</i>	2 EVENTS
ts ¹⁵ əw ʒʒii dz ¹¹ un b ⁵⁵ ʔ	<i>make two hits</i>	REPETITION
h ⁵⁰ ɔp ʒʒii dz ¹¹ un	<i>drink twice</i>	2 EVENTS
ts ¹⁵ əw ʒʒii dz ¹¹ un h ⁵⁰ ɔp	<i>take two sips</i>	REPETITION

To "drink twice" is to drink on two separate occasions, while to "take two sips" is to repeat an action in a single event. As these examples show, when the CL dz¹¹un is used to count events, it follows the verb it modifies, as do other adverbs in Yao. When used to count repetitions, the CL precedes a deverbal noun, which it modifies, e.g. dz¹¹un b⁵⁵ʔ "two hits."⁷

Certain nouns in Yao serve as their own classifier. This means that they occur in numerative phrases without a(nother) CL. These nouns are few, and are restricted semantically to a set of temporal nouns. The only self-classifying nouns that I have found in Yao are the following two: nh³³ɔy "day", and nh⁵¹aan "year", e.g.

ʒʒii nh ³³ ɔy	<i>two days</i>
ʒʒii nh ⁵¹ aan	<i>two years</i>

These noun/CLs are distinct among temporal nouns as they measure quantities of time which are empirically salient and non-conventional. Minutes, hours, weeks, etc., are standardized measures which subdivide natural units of time: days and years. Such arbitrary measures require classifiers. That certain units of time should be perceived as natural, and therefore require no further numerical classification, brings up the question of the need for classifiers to unitize objects such as houses, persons, trees, etc. Many languages take the single instance of an object as its natural measure, i.e. these create a subset of singular nouns which are then unmarked when classified as instances ("two trees"="two instances of trees"). Yao and many other languages do not have an unmarked set of nouns, except for these few self-classifying temporal nouns. Perhaps then,

the *single instance* of an object is not preeminently salient as a unitizing category in Yao (although it is in English). Only in the few cases where the single instance *is the only empirically relevant unit*, e.g. "day", "year", does this unmarked (or self-marking) appear in the Yao numerative phrase.

Many nouns can serve as temporary measure CLs. They are simply *ad hoc* measures for things. For example:

33ii t5liə s33əw
two table/CL book
two tables of books

The use of these CLs is determined closely by the context. Temporary measure CLs demonstrate the creative potential for CLs in Yao. Perhaps many Yao CLs were originally temporary measure CLs and have subsequently become conventionalized.

I-G Summary of a Yao CL syntax

In Yao, CLs occur in the frame "Num + CL + Noun." They serve anaphorically in conjunction with at least one determiner. CLs can be reduplicated to mean "every." Some CLs can modify verbs. Some nouns are self-classifying. Nouns can serve as temporary measure CLs. Finally, there is some still-unanalyzed connection between CLs and the definiteness of the NP (and between the definiteness of the NP and its possible topicalization).

II. SEMANTICS OF YAO CLS

II-A The semantic structure of Yao CLs

There is no simple semantic ordering to be found for Yao CLs. As Goral (p. 31) warns, "the evidence suggests that CL systems are combinations of structured subsystems and isolated, idiosyncratic relations." This is very much the case with Yao.

These features demonstrate the complex patterning of CLs within even general semantic domains. The semantic complexity of Yao CLs probably prevents an attempt at a componential analysis of the whole system. Even general componential features, such as "animate" or "human," cannot be imposed on the entire set of Yao CLs. For example, t5'aw is a CL for humans, [+animate, +human]; for animals, [+animate, -human]; and for doors, [-animate]. So t5'aw can classify nouns which *are or are not* human and/or animate.

It seems imprecise to even describe Yao CLs as forming a single, internally-ordered semantic system. Yao CLs are at most a set of lexical items with certain defining syntactic properties, expressing a variety of semantic relations. The central function of these relations is to provide a unit reference for nouns. Secondly, CLs provide definiteness to nouns.

and they emphasize topically salient features for the referents of the nouns they modify. CLs also function to disambiguate potential homophones, a particularly useful function in monosyllabic languages such as Yao.

If Yao CLs do not themselves constitute an ordered system, it should be remembered that Yao CLs, as a set, refer to the entire range of countable nouns in Yao, and that as a whole, these do not form a single, semantically-ordered system. Furthermore, unlike Burmese (see Becker), where CLs provide an order for nouns, Yao CLs are attached to their nouns with varying degrees of conventionality and meaningfulness. They do not order nouns as much as they are disordered by the nouns they modify. While Yao CLs do not collectively systematize the nouns they modify, many Yao CLs individually describe subsets of nouns which are ordered according to some common salient feature.⁸ A few remarks on the selectional criteria for CLs, and the study of CLs in general, will conclude this paper.

II-B The selectional criteria for Yao CLs

In Yao there are a variety of criteria for pairing any one CL with a particular noun. Some selections are semantically unmotivated and purely conventional. These CL-Noun pairs are simply memorized (e.g. #67 in Appendix I). Other CLs are matched with nouns according to some topically salient (physical) feature of the noun's referent object (e.g. #17 in Appendix I). Then there is $n^{33\text{om}}$.

The CL $n^{33\text{om}}$, used for birds, hours, and weeks, serves also as a general CL for any non-human object which is not properly modified by another CL. All objects which are alien to Yao culture can be modified by $n^{33\text{om}}$. There is some evidence that $n^{33\text{om}}$, as an unmarked CL, is beginning to replace other CLs in this dialect of Yao, or at least that $n^{33\text{om}}$ can be used when the appropriate CL cannot be remembered.

Because CLs often focus on a single, topically salient feature of the modified noun's referent, CLs are sensitive to the topic of discourse. For example, the same two people might be referred to in the following ways:

w ³³ uə ʒ ³³ i t ⁵¹ aw m ⁵¹ iən	<i>These two people [are people]</i>
w ³³ uə ʒ ³³ i t ⁵⁵ aa m ⁵¹ iən	<i>These two people [belong to the same family]</i>
w ³³ uə t ¹⁵ ɔy m ⁵¹ iən	<i>These [two] people [form a couple]</i>
w ³³ uə h ⁵¹ əw m ⁵¹ iən	<i>These [two] people [are a married couple]</i>
w ³³ uə mhw ⁵⁵ aŋ m ⁵¹ iən	<i>These [two] people [comprise a family]</i>

The selection of the CL serves to foreground certain attributes of the modified noun's referent. Sometimes there is only one possible CL for a given noun. In many cases, however, the choice of the CL is determined by pragmatic considerations, such as the topic of discourse or stylistic constraints.

II-C Yao CLs and theories of classification

As was mentioned above, it is inappropriate to describe Yao CLs as forming a semantic system. This means theories which describe systems of classification cannot readily be applied over the complete set of Yao CLs. The following is a summary of descriptive statements which can be applied to Yao CLs:

- 1) There are no discernible componential features which operate over the entire set of Yao CLs in any non-trivial way. Any set of descriptive semantic features, such as those in Appendix II, will not operate over the entire set of Yao CLs in a hierarchical fashion.
- 2) The selection among alternate possible CLs seems to be made on the basis of (a) the topic of discourse, or (b) stylistic or metaphorical considerations.
- 3) The notion that shape is an organizing feature for CLs (see Adams and Conklin) applies only to a subset of CLs in Yao. Some Yao CLs are organized according to function instead, and still others are not organized according to any prototypical shape or function. Such CLs are paired with nouns by convention, and the resultant CL-Noun pairs are learned.
- 4) Yao CLs unitize objects in three ways:

PARTICULARIZING: describing a unit which is neither a set of objects, nor part of a larger whole.

COLLECTIVIZING: describing a unit as a set of objects.

FRACTIONALIZING: describing a unit as a part of a larger whole.

- 5) Some Yao CLs carry diminutive meaning; some modify abstract nouns.

In sum, taken as a complete set, Yao CLs are not amenable to description by current theories of semantic classification. Any complete description of Yao CLs, particularly if it aims at explaining the selectional criteria, will require a thorough analysis of the semantics of Yao nouns. Prototypes and componential analysis can be used to describe various subsets of Yao CLs, however. Such an analysis is provided in Appendix II.

Notes

1. Several linguists working with one or another Southeast Asian language have been able to describe in increasing detail the intricate workings of complex CL systems. Placzek's (1978) work with Thai, and Becker's (1975) work with Burmese, show that perseverance will lead the linguist to a more precise description of a CL system.

2. Adopted from Jones, p. 6. Lahu information from James Matisoff (personal communication).
3. Thai also permits the numeral one to be omitted (Matisoff: personal communication).
4. Lahu also allows for the approximate reduplication of CLs. (Matisoff: personal communication).
5. Rather like English "strike twice" (two events) and "strike two blows" (two repetitions).
6. The same types of nouns are self-classifying in other South East Asian languages, notably Chinese (Goral: p.29). It is curious that the term for "lunar month" (lh¹⁵aa) is not self-classifying while the terms for "day" and "year" are.
7. Appendix I shows a large selection of Yao CLs. Standard measure CLs such as 1⁵it for "liter," etc. have been omitted. In Appendix II, the CLs from Appendix I are described according to some general semantic features. A finer feature analysis of Yao CLs is, of course, possible, and would no doubt uncover some of the more complex selectional criteria for individual CLs. Such an analysis would require a more highly sophisticated understanding of Yao lexical semantics, and of Yao culture in general, than this author now possesses.
8. The Yao consultant replaced CLs occurring in Lombard and Purnell's Yao-English Dictionary with n⁵⁵om five times exclusively, and several other times as an acceptable alternate CL.

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APPENDIX I

Yao Classifiers

Note: ㄣ indicates a cross-reference to a classifier in Appendix E of Lombard and Purnell's *Yao-English Dictionary*.

ㄣ	1.	c ¹ 5aa	Occasions, periods of time
ㄣ	2.	c ⁵ 5aw	Groups of travelers travelling at different times. Cf. #28 kw ³ 3an
ㄣ	3.	ch ¹ 5oŋ	Small fields and small rooms
ㄣ	4.	c ¹ 5iəw	Words or phrases
	5.	c ⁵ 1oy	Bunches/clusters of fruit
	6.	d ¹ 1aaŋ	Spatial directions
ㄣ	7.	dy ⁵ ep	Drops of liquid
	8.	d ⁵ 5om	Hollow objects
ㄣ	9.	d ¹ 5?	Cubits
	10.	d ^w 33ii	Piled up objects
	11.	dz ¹ 1aan	Letters of the alphabet
	12.	dz ¹ 1om	Sides, e.g. sides of house
ㄣ	13.	dz ³ 3oŋ	Fields to be cultivated
	14.	dz ⁵ op	Clusters of large plants; trees, forests, bamboo groves. Cf. #50 p ³ 3om
ㄣ	15.	dz ¹ 1un	Times or occurrences
ㄣ	16.	g ¹ 5an	Chunks, parts of a whole
	17.	g ¹ 1ən	Long round objects
ㄣ	18.	gw ¹ 1aa	Branches and limbs
	19.	h ⁵ 1əw	Married couples

- | | | |
|-----|----------------------|---|
| 20. | h ⁵⁵ iŋ | Opposite poles of time or space |
| 21. | j ¹¹ un | Bolts of cloth |
| 22. | k ⁵⁵ əw | Sections, divisions of an object |
| 23. | kh ⁵⁵ uu | Needles, pins, small instruments |
| 24. | kh ⁵⁵ ʔ | For measuring dried fruit, bark, etc. |
| 25. | khw ⁵⁵ ay | Flat, thin things; a general CL; e.g. doors, paper, planks, pages |
| 26. | k ¹⁵ ʲun | Lumps of things, e.g. sugar |
| 27. | k ⁵⁵ ɔp | Small boxes, e.g. match boxes |
| 28. | kw ³³ an | Groups; a general CL; e.g. herds of animals, crowds of people, flocks of chickens |
| 29. | ky ^{1a} ʔ | Hands and feet |
| 30. | l ⁵¹ aan | Unrelated adult humans |
| 31. | l ⁵⁵ ɛŋ | Pairs; used for shoes |
| 32. | lh ¹⁵ am | Sections of bamboo |
| 33. | lh ¹⁵ ɛŋ | Slices of fruit |
| 34. | lw ¹⁵ ii | Litters of animals |
| 35. | m ¹⁵ ən | Parts, edges, sides |
| 36. | mhw ⁵⁵ aŋ | A family as a group |
| 37. | n ¹⁵ aam | Hand spans |
| 38. | n ³³ ɔm | Objects in general: birds, hours, weeks; general CL used for all objects alien to Yao culture |
| 39. | ñ ³³ aw | Fistfuls of objects |
| 40. | ñ ³³ ɔm | Bundles of paddy |
| 41. | ñ ¹¹ uŋ | For counting <i>kinds</i> of things |
| 42. | ŋ ^{5a} ʔ | Lengths of bamboo |
| 43. | p ^{5a} ʔ | Bundles of things |
| 44. | p ¹⁵ ɛŋ | Pencils, pens; general CL for long, thin objects |
| 45. | ph ³³ aan | Mosquito nets, floor mats |
| 46. | ph ¹⁵ əw | Ships, scissors |
| 47. | phw ⁵⁵ aŋ | Double handfuls |
| 48. | p ⁵¹ iən | Basins of rice |
| 49. | p ⁵ ip | Dry measures |
| 50. | p ³³ ɔm | Plants growing in clumps, small stands of bamboo, clumps of grass, etc.; this CL is used for clusters of plants which are smaller than clusters classified by dz ⁵ op. |
| 51. | pw ⁵⁵ ən | Books |
| 52. | pw ³³ ən | Hours, minutes |
| 53. | pw ¹¹ ən | Families, households |
| 54. | pw ³³ ii | Basketfuls (used with a certain type of basket which is carried on the back) |
| 55. | py ¹¹ en | Round, doughnut shaped things, e.g. wheels |
| 56. | py ⁵¹ oŋ | Clusters of things |

♂	57.	s ⁵⁵ ɛɛŋ	Small bamboo containers
♂	58.	s ⁵⁵ im	Lengths of roofing thatch
♂	59.	s ³³ uun	Pairs of things, e.g. chopsticks
♂	60.	t ⁵¹ aw	People, animals, doors
♂	61.	t ¹¹ əw	Legs of a journey, periods of time
♂	62.	t ¹⁵ əy	Trousers, jackets, strings of money
♂	63.	th ¹⁵ oŋ	Crops, marriages, calamities
♂	64.	th ⁵⁵ ʔ	Bunches of bananas
♂	65.	t ³³ iəm	Dots, periods
♂	66.	t ⁵¹ iw	Long narrow objects; a general CL, e.g. roads, snakes, matchsticks, tails of animals, stairways, etc.
♂	67.	t ¹¹ iw	Reasons
♂	68.	t ³³ o	Clouds, large bunches
♂	69.	t ¹⁵ oy	Pairs of things, couples; not used for shoes
♂	70.	t ¹¹ ooy	Generations
♂	71.	ts ¹¹ an	Cups of tea
♂	72.	ts ⁵⁵ ey	Letters, books, newspapers, magazines, pamphlets, etc.
	73.	ts ⁵⁵ əy	Tied-up bunches of vegetables
♂	74.	tsh ¹⁵ aam	Crops, periods of time, approximately 12 to 20 days, i.e. the normal planting period
	75.	ts ⁵¹ oəm	Groups of people seated
	76.	ts ⁵⁵ uŋ	Bedrolls
♂	77.	ts ³³ uŋ	Knives
	78.	ts ¹⁵ uun	Amounts of silver wire
	79.	ty ⁵⁵ aa	Members of a family
♂	80.	y ⁵⁵ en	Bowlfuls
	81.	y ¹¹ əm	Dresses

APPENDIX II

Yao Classifiers—a Semantic Analysis

Key to legend: [a] is the number from Appendix 1; [b] is the Yao CL; [c-e] indicate whether the CL [c] particularizes, [d] fractionalizes, or [e] collectivizes the noun it modifies; [f-g] show whether the CL is used with nouns which are [f] concrete, or [g] animate; [h-i] specify whether or not the CL is coupled with its noun because of [h] quantity or [i] function; [j] remarks on the use of shape or dimensionality as a prototype; [k] comprises various comments. Abbreviations: dimens. (dimensional), dimin. (diminutive), gen. (general).

[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
1.	c ¹⁵ aa	❖			-	-				
2.	c ⁵⁵ aw			❖	+	+				
3.	ch ¹⁵ oŋ	❖			+	-	✓			dimin.
4.	c ¹⁵ iəw	❖			-	-				

[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
5. c ⁵ by				❖	+	-			bunches	
6. d ¹ laaŋ	❖				-	-				
7. dy ⁵ ep	❖				+	-	✓		drop-shaped	
8. d ⁵ om	❖				+	-			hollow	
9. d ¹ o?	❖				+	-	✓			
10. dw ³ ii				❖	+	-			piles	
11. dz ¹ laaŋ	❖				+	-				
12. dz ¹ om	❖				+	-		✓	sides	
13. dz ³ oŋ	❖				+	-				
14. dz ⁵ op				❖	+	-				
15. dz ¹ un			❖	❖	±	-				for verbs
16. g ¹ an			❖		+	-				
17. g ¹ en	❖				+	-			2-dimens., round	
18. gw ¹ aa	❖				+	-			2-dimens.	
19. h ⁵ əw				❖	+	+			pairs	
20. h ⁵ in	❖				-	-				
21. j ¹ un	❖				+	-	✓			
22. k ⁵ əw			❖		+	-				
23. kh ⁵ uu	❖				+	-		✓		
24. kh ⁵ o?	❖			❖	+	-				for dry objects
25. khw ⁵ ay	❖				+	-			2- or 3-dimens.	
26. k ¹ l ⁵ un	❖			❖	+	-			lumps	
27. k ⁵ op	❖				+	-			box-like	dimin.
28. kw ³ an				❖	+	+				
29. ky ¹ a?	❖				+	+		✓		
30. l ⁵ aan	❖				+	+				
31. l ⁵ əŋ				❖	+	-		✓	pairs	
32. lh ⁵ am	❖				+	-				
33. lh ⁵ əŋ			❖		+	-				
34. lw ¹ ii				❖	+	+		✓		
35. m ¹ ən			❖		+	-				

[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
36. mhw ⁵⁵ aŋ				❖	+	+				
37. n ¹⁵ aam	❖				+	-	✓			spans
38. n ³³ om	❖				±	±				gen. CL
39. ñ ³³ aw				❖	+	-	✓			
40. ñ ³³ om				❖	+	-	✓			bundles
41. ñ ¹¹ uŋ	❖				±	±		✓		kinds of objects
42. ŋ ^{5a?}										lengths
43. p ^{5a?}				❖	+	-	✓			bundles (gen.)
44. p ¹⁵ εŋ	❖				+	-			2-dimens.	
45. ph ³³ aan	❖				+	-			woven	
46. ph ¹⁵ əw	❖				+	-		✓	ship-like	
47. phw ⁵⁵ aŋ				❖	+	-	✓			double handfuls
48. p ⁵¹ iən				❖	+	-	✓			basins (of rice)
49. p ⁵¹ ip	❖			❖	+	-	✓			a dry measure
50. p ³³ om				❖	+	-				dim.
51. pw ⁵⁵ ən	❖				+	-				
52. pw ³³ ən	❖				-	-	✓			
53. pw ¹¹ ən				❖	+	+				
54. pw ³³ ii				❖	+	-	✓		basketfuls	
55. py ¹¹ ən	❖				+	-			round, flat	
56. py ⁵¹ oŋ				❖	+	-				clusters (gen.)
57. s ⁵⁵ εεŋ	❖				+	-				dimin.
58. s ⁵⁵ im	❖			❖	+	-				
59. s ³³ uunŋ				❖	+	-		✓		pair (gen.)
60. t ⁵¹ aw	❖				+	±				
61. t ¹¹ əw		❖			-	-		✓		
62. t ¹⁵ əy	❖				+	-		✓		
63. th ¹⁵ oŋ	❖				±	-		✓		
64. th ^{5a?}				❖	+	-				
65. t ³³ iəm	❖				+	-			1-dimens.	

[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
66. t ⁵ liw	❖			+	-				2-dimens., long	gen. use
67. t ^l liw	❖			-	-					for reasons
68. t ³³ ɔɔ			❖	+	-				large bunch	
69. t ^l ɔy			❖	+	±					pairs (non- functional)
70. t ^l ɔy		❖	❖	+	+					generations
71. ts ^l an	❖			+	-					
72. ts ⁵⁵ ey	❖			+	-			✓		written items
73. ts ⁵⁵ əy			❖	+	-		✓			
74. tsh ^l aam	❖	❖		±	-					
75. ts ^l ɔm			❖	+	-					<i>seated</i> groups
76. ts ⁵⁵ uŋ	❖			+	-					
77. ts ³³ uŋ	❖			+	-					
78. ts ^l uun		❖	❖	+	-		✓			
79. ty ⁵⁵ aa		❖		+	+					
80. y ⁵⁵ en	❖		❖	+	-		✓			bowlsful
81. y ^l əm	❖			+	-			✓		