

# Highlights from three Language Families in Southwest China

Matthias Gerner

RFLR Monographs







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*Burmese-Lolo, Tai-Kadai, Miao*



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God created rare language phenomena like those hidden in the Burmese-Lolo, Tai-Kadai and Miao languages which are the subject of this monograph (Proverbs 25:2).

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## Preface

The Burmese-Lolo, Tai-Kadai, Miao-Yao and Chinese languages form a loose *Sprachbund* in Southwest China with hundreds of languages coexisting and assimilating to each other. Shared language patterns include grammaticalized prepositions and aspect particles.

Meanwhile individual languages showcase highly idiosyncratic properties not paralleled in any genetically or areally related language. In my fieldwork, I have encountered a range of rare sound phenomena: a bilabial trill in Nuosu, eleven retroflexive consonants in Neasu, three consonant clusters with alternating voicing in Nase, plosive-lateral consonant clusters in Hmong, nine short/long vowel contrasts in Lao, five plain/nasalized vowel contrasts in Xong and nine contrastive tones in Kam two of which are undulated.

Morphologically rare data sets include the sound-symbolic size prefixes in Nuosu, the ambiperfective aspect particle in Lolo, the two epistemic mood particles in Nase, the singular/plural classifiers in Northern Kam, the inflectional classifiers in the otherwise isolating Ahmao language and the serial demonstrative pronouns in Hmong.

In the domain of syntax, differential case marking and differential word order of four Burmese-Lolo languages are each spectacular in different ways: differential subject marking in Azhee and Nesu, differential object marking in Lolo and differential word order in Nuosu. Moreover, the six negation particles in Sānjiāng Kam and the counterfactual conjunction in Hmu are noteworthy.

From this picture, we conclude that the languages of this linguistic area have as much assimilated to each other as they have dissimilated.

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## Abbreviations

* (before expression)	ungrammatical
# (before expression)	unnatural, odd
~	reduplication
1.DL	First Person Dual
1.PL	First Person Plural
1.PL.EXCL	First Person Plural Exclusive
1.PL.INCL	First Person Plural Inclusive
1.SG	First Person Singular
2.DL	Second Person Dual
2.PL	Second Person Plural
2.PL.POSS	Second Person Plural Possessive
2.SG	Second Person Singular
3.DL	Third Person Dual
3.PL	Third Person Plural
3.SG	Third Person Singular
A	Agent or Addressee
ADJ	Adjective
ADVL	Adverbializer
AMP	Ambipерfective aspect
ART	Article
ART.PROX	Proximal Article
ART.DIST	Distal Article
ASP	Aspect
AUG	Augmentative
B	Recipient role of ditransitive predicate
BCL	Bare classifier
BN	Bare noun
C	Consonant
CL	Classifier

CL*	Classifier with sandhi tone
CL.AUG	Augmentative classifier
CL.AUG.DEF	Definite augmentative classifier
CL.AUG.INDEF	Indefinite augmentative classifier
CL.MED	Medial classifier
CL.MED.DEF	Definite medial classifier
CL.MED.INDEF	Indefinite medial classifier
CL.DIM	Diminutive classifier
CL.DIM.DEF	Definite diminutive classifier
CL.DIM.INDEF	Indefinite diminutive classifier
CL.PL	Plural Classifier
CL.SG	Singular Classifier
CL.plot	Classifier with nominal meaning
COMP	Complementizer
COMP.say	Complementizer derived from 'say'
COND	Conditional conjunction
CONJ	Conjunction
CONT	Continuous aspect
CONJ.then	Conjunction 'then'
COP	Copular
COUNT	Counterfactual conjunction
COV	Coverb
COV.give	Coverb derived from 'give'
COV.PASS	Passive Coverb
D	Dependent
DEM	Demonstrative
DEM.A.PROX	Proximal-to-addressee demonstrative
DEM.DIST	Distal demonstrative
DEM.FRO	Distal demonstrative
DEM.INT	Demonstrative intensifier
DEM.MED	Medial demonstrative
DEM.PROX	Proximal demonstrative
DEM.S	Speaker-based demonstrative
DEM.S&A.DIST	Distal-to-S&A demonstrative
DEM.S&A.FAM	Familiar demonstrative
DEM.S&A.PROX	Proximal-to-S&A demonstrative
DEM.S.BACK	Back-of-speaker demonstrative

DEM.S.FRO	Front-of-speaker demonstrative
DEM.S.DIST	Distal-to-speaker demonstrative
DEM.S.OPPOS	Opposed-to-speaker demonstrative
DET	Determiner
DIM	Diminutive
DOM	Differential Object Marking
DP	Dynamic perfect
DSM	Differential Subject Marking
EMP	Emphatic
EXCL	Exclamative
EXH	Exhaustion particle
EXP	Experiential
FUT	Futur tense
H	Head
HAB	Habitual
IDE	Ideophone
INCH	Inchoative aspect
INT	Interrogative
INT.why	Interrogative 'why'
LNK	Linker
LOC	Locative
LOG.PL	Plural logophor
LOG.SG	Singular logophor
MOD	Modal auxiliary or particle
MOD.can	Modal auxiliary 'can'
N	Noun
NEG	Negation
NESS	Necessity epistemic mood
NOM	Nominalization
NP	Noun phrase
NUM	Number
NUM.3	Number eight
O	Patient role of monotransitive predicate
PASS	Passive
POSS	Possible epistemic mood
PROG	Progressive
QUOT	Quotative

RES	Resultative
SEND	Resultative derived from 'send'
SENT.TOP	Sentence topic
SOL	Solicitation, feedback
SUG	Suggestion
T	Tone
TAM	Tense, aspect, modality
TOP	Topic
V	Vowel or Verb



# Chapter 1

## Burmese-Lolo Linguistics

### 1.1 Introduction

The Burmese-Lolo languages are divided into the Burmish and Loloish branch. Most Loloish languages are spoken by ethnic Yí 彝 people who constitute one of the 56 official nationalities in China. Ethnographic writers concur that the origin of most Loloish groups trace back more than 2000 years to an ancient group called Ni people. Steven Harrell<sup>1</sup>, quoting the Chinese ethno-historiographer Mǎ Chángshòu 马长寿, believes that the earliest mention of the Yí is in historical accounts of the Zhou dynasty (1048-250 B.C.). Early Chinese records referred to Southwestern peoples as *Wūmán* 乌蛮 (Black Barbarians) and *Báimán* 白蛮 (White Barbarians). These names may point to the basic color labels applicable to virtually every minority in Southwest China, not only the Yi, but also other groups such as the Miao, Tai, Lahu, Lisu, etc. After the 12<sup>th</sup> century, Chinese sources gradually employed the name *Lúo* 猺 that contained the pejorative animal radical. The name subsequently evolved into its reduplicated form *Lolo*. This appellation was the designation used by Chinese and Westerners for several centuries until 1949 when, it was substituted by the name *Yí* 彝 with the arrival of the People's Republic of China. In the language classification literature, *Lolo* survived within the language group designation *Loloish languages*.

### 1.2 Phylogenetics

The Burmese-Lolo languages belong to the Tibeto-Burman languages that are remote relatives of the Sinitic languages within the Sino-Tibetan family. The

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<sup>1</sup> See Harrell (1995: 76).

Burmese-Lolo languages are one of seven major language groups falling under the Tibeto-Burman nod.



According to scholars who have classified Tibeto-Burman languages, the Loloish languages constitute the principal component of the Burmese-Lolo language group. Most scholars however, exclude Qiang, the extinct Tangut (西夏) language and Nung from Burmese-Lolo. Meanwhile Sūn 孙 (1998) includes the Bai, Bisu and Tujia languages within the Yí (Loloish) group; these languages have been classified by Western scholars in other groups of Tibeto-Burman.



### 1.3 Documentation

The Lolish languages have shared the same geographical area with Chinese for thousands of years. They are not inflectional like most other Tibeto-Burman languages. Instead, they have assimilated into Chinese with an isolating

morphology. In this section, we document some typologically outstanding properties of Burmese-Lolo languages. Most of these properties have been published in academic journals over the past few years.

### 1.3.1 Phonology

#### A. Consonants

Consonant systems of different Yí languages resemble each other and tend to exhibit large numbers of simple consonants, but only a few complex consonants. For example, in *Lalo*<sup>2</sup> spoken in Wēishān 巍山 county, there is a three-way contrast between voiced, voiceless, and aspirated plosives for all three major points of articulation, i.e. bilabial, alveolar, and velar.

[p]:	ba <sup>33</sup>	'bright'	[d]:	da <sup>33</sup>	'horny'	[g]:	ga <sup>33</sup>	'help'
[p]:	ʔna <sup>21</sup> pu <sup>55</sup>	'ear'	[t]:	ga <sup>55</sup> tu <sup>55</sup>	'yard'	[k]:	ku <sup>55</sup>	'in'
[pʰ]:	pʰy <sup>55</sup>	'sprinkle'	[tʰ]:	tʰy <sup>55</sup>	'speak'	[kʰ]:	kʰy <sup>55</sup>	'gurgle'

Table 1.1: Voiced, voiceless and aspirated plosives in Wēishān Lalo

Furthermore, there are several rare consonants and sets of consonants in the Yí group. For example, *Liángshān Nuosu* displays a bilabial voiced trill in its sound inventory represented as [β]. It always occurs before the vowel [u] and sometimes with alveolar consonant onset as in [tβ]. This trill is more pronounced in creaky syllables and/or with alveolar consonant onset.

[β]:	zi <sup>33</sup> βu <sup>44</sup>	'roof'	[tβ]:	tβu <sup>55</sup>	'poison'		
[β]:	βu <sup>55</sup> ʂə <sup>33</sup>	'meadow'	[tβ]:	ʂw <sup>33</sup> tβu <sup>33</sup>	'steel'		

Table 1.2: Bilabial voiced trill in Liángshān Nuosu

The *Neasu* language spoken in Wēining 威宁 county (Guizhōu) has an extensive set of retroflex consonants. The retroflex stops and nasal are particularly noteworthy.

<sup>2</sup> See Björverud (1998:15-18).

Plosives	[ŋd]: ŋdɿ <sup>33</sup> 'traverse'	[d]: dɿ <sup>21</sup> 'fly'	[t]: tɿ <sup>55</sup> 'weave'	[tʰ]: tʰɿ <sup>55</sup> 'leave over'
Affricates	[ŋdʒ]: ŋdʒa <sup>33</sup> 'measure'	[dʒ]: dʒa <sup>21</sup> 'import'	[tʂ]: tʂa <sup>33</sup> 'support'	[tʂʰ]: tʂʰa <sup>33</sup> 'should'
Nasals/ Fricatives	[ŋ]: ŋu <sup>55</sup> 'event'	[z]: zɑ <sup>55</sup> 'forgive'	[s]: sɑ <sup>33</sup> χɿ <sup>33</sup> 'healthy'	

Table 1.3: Eleven retroflex consonants in Wēining Neasu

The Nase language spoken in Luóping 罗平 county (Yúnnán) has a double voicing alternation in the same consonant cluster. These oscillating clusters, which exist for the bilabial, alveolar and velar positions, consist of a voiced prenasal, a voiceless stop, as well as a breathy voicing release.

[mpʰ]: mp <sup>h</sup> u <sup>33</sup> 'fell'	[ntʰ]: nt <sup>h</sup> u <sup>55</sup> 'think'		[ŋkʰ]: ŋk <sup>h</sup> u <sup>21</sup> 'door'	
[mpʰ]: mp <sup>h</sup> a <sup>33</sup> 'word'	[ntʰ]: nt <sup>h</sup> o <sup>33</sup> 'drink'		[ŋkʰ]: ŋk <sup>h</sup> o <sup>33</sup> 'write'	

Table 1.4: Consonant clusters with alternating voicing in Luóping Nasu

## B. Vowels, Tones, and Syllables

Vowel systems are simple and basically comprise of monophthongs and sometimes of a few diphthongs, such as [iɛ] or [uɔ]. Most Yí languages we surveyed have unrounded central [i] and back vowels [u] or [ɿ] ([ɿ] is only attested in the *Neasu* language of Wēining county in Guizhōu). Most Yí languages have a contrast [i-ɪ] (e.g. *Liángshān Nuosu*) or [i-y] (e.g. *Wēishān Lalo*, *Wēining Neasu*).

All Yí languages have a stock of at least three contrastive tones: high [<sup>55</sup>], middle [<sup>33</sup>], and low [<sup>21</sup>] (sometimes [<sup>11</sup>]). *Liángshān Nuosu* exhibits only three tones in addition to one sandhi-tone [<sup>44</sup>] which is not fully contrastive. On the other hand, *Wēining Neasu* and *Milè Axi* have four and five contrasting tones, respectively. (Sandhi-tones exist in many Yí languages.)

Liángshān Nuosu	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>21</sup> ]		
(Sichuān)	bo <sup>55</sup> ‘party’	bo <sup>33</sup> ‘go’	bo <sup>21</sup> ‘shine’		
Wēiníng Neasu	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>21</sup> ]	[ <sup>13</sup> ]	
(Guìzhōu)	tʃhu <sup>55</sup> ‘spoiled’	tʃhu <sup>33</sup> ‘car’	tʃhu <sup>21</sup> ‘relatives’	tʃhu <sup>13</sup> ‘sweet’	
Mílè Axi	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>42</sup> ]	[ <sup>22</sup> ]	[ <sup>11</sup> ]
(Yúnnán)	ni <sup>55</sup> ‘fall over’	ni <sup>33</sup> ‘dew’	ni <sup>42</sup> ‘hungry’	ni <sup>22</sup> ‘sit’	ni <sup>11</sup> ‘ox’

The syllable structure in most Yí languages is relatively simple C(C)V(V)T (where T represents a suprasegmental tone). Syllables are open without nasal or obstruent closure. In addition to the regular modal phonation type, two other syllable types are widespread in the Yí group: creaky and nasalized syllables. The emergence of the latter type can be attributable to Chinese loanwords. Syllables with nasal closure were borrowed from Chinese and progressively truncated into nasalized open syllables.

### 1.3.2 Morphology

The Loloish languages contain some exceptional parts of speech that I succinctly sketch below. Several Loloish languages have definite articles. In *Axi* (Mílè, Yúnnán) and *Lolo* (Yǒngrén, Yúnnán), the general classifier, if deferred after the head noun N+CL, functions as definite article. In *Liángshān Nuosu*, definite articles are derived from classifiers by suffixing the nominalization particle *-su*.<sup>3</sup> The bare classifier functions as an indefinite article.

- |     |    |                                   |                   |  |    |                                   |                                    |  |
|-----|----|-----------------------------------|-------------------|--|----|-----------------------------------|------------------------------------|--|
| (1) | a. | tʃho <sup>33</sup>                | ma <sup>33</sup>  |  | b. | tʃho <sup>33</sup>                | ma <sup>44</sup> su <sup>33</sup>  |  |
|     |    | man                               | CL                |  |    | man                               | ART=CL*+DET                        |  |
|     |    | ‘a man’                           |                   |  |    | ‘the man’                         |                                    |  |
| (2) | a. | bu <sup>33</sup> ʃə <sup>33</sup> | təi <sup>33</sup> |  | b. | bu <sup>33</sup> ʃə <sup>33</sup> | təi <sup>44</sup> su <sup>33</sup> |  |
|     |    | snake                             | CL                |  |    | snake                             | ART=CL*+DET                        |  |
|     |    | ‘a snake’                         |                   |  |    | ‘the snake’                       |                                    |  |

<sup>3</sup> See Gerner (2003b).

### 1.3.2 Morphology

*Neasu* (Wēining, Guìzhōu) exhibits two definite articles with deictic information (close/far from speaker). These definite articles have been historically derived from the merger of demonstratives and the general classifier *mo*<sup>33</sup>. Originally, they included a medial definite article which further developed into a topic marker.<sup>4</sup>

	PROXIMAL	MEDIAL	DISTAL
Demonstratives	tʰa <sup>55</sup>	na <sup>55</sup>	ga <sup>55</sup>
Definite articles	tʰɔ <sup>33</sup>		gɔ <sup>55</sup>
Topic marker		nɔ <sup>33</sup>	

Table 1.5: Demonstratives, articles and topic marking in Wēining *Neasu*

- (3) a. hnu<sup>33</sup>tsʰɔ<sup>33</sup> tʰa<sup>55</sup> lə<sup>21</sup>      b. hnu<sup>33</sup>tsʰɔ<sup>33</sup> tʰɔ<sup>33</sup>  
 person      DEM:PROX CL      person      ART.PROX  
 ‘this person’      ‘the person (close to speaker)’
- (4) a. hnu<sup>33</sup>tsʰɔ<sup>33</sup> na<sup>55</sup> lə<sup>21</sup>      b. hnu<sup>33</sup>tsʰɔ<sup>33</sup> nɔ<sup>33</sup>  
 person      DEM:MED CL      person      TOP  
 ‘that person (at medial distance)’      ‘as for the person,...’
- (5) a. hnu<sup>33</sup>tsʰɔ<sup>33</sup> ga<sup>55</sup> lə<sup>21</sup>      b. hnu<sup>33</sup>tsʰɔ<sup>33</sup> gɔ<sup>55</sup>  
 person      DEM:DIST CL      person      ART.DIST  
 ‘that person (far away)’      ‘the person (far away)’

In the pronominal system, *Liángshān Nuosu* exhibits a rare African-style logophor with two suppletive forms: *i*<sup>33</sup> (singular) and *o*<sup>21</sup> (plural). In the narrow sense, a logophor is a proform that marks dependency on the speaker of a reported speech. *Nuosu* and *Mupun*<sup>5</sup> exhibit logophors with this function. In the extended sense, a logophor codes dependency on a secondary speaker and additionally, on the person to whom an attitude, thought, or feeling is ascribed. The *Chinese* long-distance reflexive *zìjǐ* 自己<sup>6</sup> is a logophor in the broader sense.

<sup>4</sup> See Gerner (2003b, 2012a).

<sup>5</sup> *Mupun* is an Afro-Asiatic language spoken in Nigeria by 150,000 people and studied by Frajzyngier (1993).

<sup>6</sup> See Huang and Liu (2001).

One feature of logophors in the narrow sense<sup>7</sup> like that in Nuosu is that they are not required to be c-commanded by their antecedents.

- (6) a. **ʃa<sup>33</sup>ma<sup>33</sup><sub>1</sub>** **m̩<sup>33</sup>ka<sup>55</sup><sub>2</sub>** **təo<sup>44</sup>** **hi<sup>21</sup>** **ko<sup>33</sup>** **i<sup>33</sup><sub>1/\*2/\*3</sub>** **vu<sup>33</sup>** **o<sup>44</sup>** **dj<sup>44</sup>**.  
 male name male name to say SENT.TOP LOG.SG crazy DP QUOT  
 ‘Shama<sub>1</sub> told Muka<sub>2</sub> that he<sub>1/\*2/\*3</sub> became crazy.’
- b. **m̩<sup>33</sup>ka<sup>55</sup><sub>1</sub>** **ʃa<sup>33</sup>ma<sup>33</sup><sub>2</sub>** **dj<sup>44</sup>** **ta<sup>33</sup>** **gw<sup>33</sup>** **hi<sup>21</sup>** **ko<sup>33</sup>** **o<sup>21</sup><sub>\*1/2/\*3</sub>**  
 male name male name at COV hear say SENT.TOP LOG.PL  
 vu<sup>33</sup> o<sup>44</sup> dj<sup>44</sup>.  
 crazy DP QUOT  
 ‘Muka<sub>1</sub> heard from Shama<sub>2</sub> that they<sub>\*1/2/\*3</sub> became crazy.’

Liángshān Nuosu exhibits a particularly strong synesthetic sound symbolism (for this semiotic notion, see Waugh, 1992, 1994). Prefixing *i-* to an adjectival root produces the diminutive member for a closed set of gradual antonym pairs, whereas prefixing *a-* to the same root yields the augmentative member.

[i] diminutive		[a] augmentative	
i <sup>44</sup> -ʃo <sup>33</sup>	‘short’	a <sup>33</sup> -ʃo <sup>33</sup>	‘long’
i <sup>44</sup> -tʃu <sup>33</sup>	‘thin’	a <sup>33</sup> -tʃu <sup>33</sup>	‘thick’
i <sup>44</sup> -l̩ <sup>33</sup>	‘light’	a <sup>44</sup> -l̩ <sup>33</sup>	‘heavy’
i <sup>44</sup> -dʒə <sup>33</sup>	‘narrow’	a <sup>33</sup> -dʒə <sup>33</sup>	‘wide’
i <sup>44</sup> -ŋ̩ <sup>33</sup>	‘few’	a <sup>44</sup> -ŋ̩ <sup>33</sup>	‘much, many’
i <sup>44</sup> -fu <sup>33</sup>	‘fine’	a <sup>33</sup> -fu <sup>33</sup>	‘coarse’
i <sup>44</sup> -nu <sup>33</sup>	‘soft’	a <sup>44</sup> -ko <sup>33</sup>	‘hard’
i <sup>55</sup> -tsi <sup>33</sup>	‘small’	a <sup>44</sup> -ʒə <sup>33</sup>	‘big’

Table 1.6: Synesthetic sound symbolism in Liángshān Nuosu

<sup>7</sup> See Gerner (2016a).

## 1.3.3 Syntax

The Loloish languages exhibit special types of syncretic and differential case marking. For clarification: *case syncretism*<sup>8</sup> is an *identical* marking of *different* syntactic relations; *differential case marking*<sup>9</sup> on the other hand, signifies *different* marking of the *same* syntactic relation. *Differential subject/object marking* (DSM/DOM) is reported in more than 300 languages worldwide. The factors that trigger DSM/DOM can be classified into four categories:

<b>Type</b>	<b>Category</b>	<b>Trigger</b>
I	Property of subject or object	Animacy/definiteness/person of subject or object
II	Relationship between subject and object	Their relative rank in animacy <sup>10</sup> / definiteness <sup>11</sup> / person-hierarchy <sup>12</sup>
III	Relationship between subject, object, predicate	Ambiguity of subject and object
IV	Property of relation between subject, object, predicate	Tense, aspect, mood

Table 1.7: Four categories of triggers for differential case marking

Burmese-Lolo exhibit languages of the trigger type I, III, IV. Subject marking in *Mílè Azhee* hinges on the subject's animacy as well as on the ambiguity of subject and object (type I and III), whereas object marking in *Yǒngrén Lolo* depends on the ambiguity of subject and object alone (type III). The aspect of the whole clause (type IV) decides the subject marking in *Gèjiù Nesu* and the basic word order in *Liángshān Nuosu*.

## A. DSM in Mílè Azhee

DSM in *Azhee*<sup>13</sup> is triggered by the animacy of the subject (A) and also by potential A/O-ambiguity. It exhibits type I and III. Many Burmese-Lolo languages

<sup>8</sup> See Stolz (1996), Palancar (2002:41).

<sup>9</sup> See Bossong (1985, 1991).

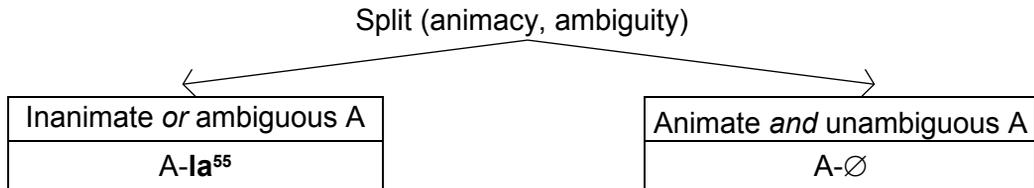
<sup>10</sup> Human > Animate > inanimate

<sup>11</sup> Pronoun > proper noun > definite > specific > nonspecific

<sup>12</sup> First/second > third person

<sup>13</sup> *Azhee* is a Central Loloish language spoken by about 90,000 natives in Mílè county of Yúnnán Province (P.R. of China). For an elaborate description, see Gerner (2016b).

mark the subject on the basis of its animacy. Animacy-triggered DSM is sparsely attested in only 10% of the world's languages.<sup>14</sup> The *Azhee* case marker *la*<sup>55</sup> marks either inanimate subjects or subjects that are ambiguous with objects; it does not mark other transitive subjects.



The postposition *la*<sup>55</sup> splits transitive clauses into sentences with inanimate and animate subjects. It marks one noun phrase as A, the instigating force. With zero marking, the sentence remains ungrammatical.

- (7) a. *lu*<sup>33</sup>*ho*<sup>21</sup> *la*<sup>55</sup> *go*<sup>33</sup>*mo*<sup>33</sup> *tie*<sup>21</sup> *bə*<sup>55</sup> *wa*<sup>55</sup>.  
 hail DSM wheat hit collapse DP  
 A O V

'The hail destroyed the wheat.'

- b. \* *lu*<sup>33</sup>*ho*<sup>21</sup> *go*<sup>33</sup>*mo*<sup>33</sup> *tie*<sup>21</sup> *bə*<sup>55</sup> *wa*<sup>55</sup>.  
 hail hit collapse DP  
 A O V

Intended: 'The hail destroyed the wheat.'

Word order is free as long as the inanimate A is marked by *la*<sup>55</sup>, which can occur in the initial or second position.

- (8) *po*<sup>33</sup>*lj*<sup>21</sup> *mə*<sup>55</sup>*tə*<sup>55</sup> *la*<sup>55</sup> *tʂo*<sup>33</sup>*ze*<sup>33</sup> *wa*<sup>55</sup>.  
 glass fire DSM melt DP  
 'The glass was melted by fire.'

The basic *Azhee* word order is unstable like in many other Loloish languages. Native speakers strongly prefer using the postposition *la*<sup>55</sup> to disambiguate

<sup>14</sup> This percentage is based on a typological investigation of 200 languages by Fauconnier (2011:535).

between the subject and object. The NP marked by *la*<sup>55</sup> can occur in both the first and second position.

- (9) a. 

<u>a<sup>33</sup>ʂa<sup>55</sup>po<sup>55</sup></u>	<u>a<sup>33</sup>nə<sup>33</sup></u>	<u>bu<sup>21</sup></u>
male name	female name	carry
A/O	O/A	V

  
'Ashabo carried Anna.' / 'Anna carried Ashabo.'
- b. 

<u>a<sup>33</sup>nə<sup>33</sup></u>	<u>a<sup>33</sup>ʂa<sup>55</sup>po<sup>55</sup></u>	<u>bu<sup>21</sup></u>
female name	male name	carry
A/O	O/A	V

  
'Anna carried Ashabo.' / 'Ashabo carried Anna.'
- (10) a. 

<u>a<sup>33</sup>ʂa<sup>55</sup>po<sup>55</sup></u>	<u>la<sup>55</sup></u>	<u>a<sup>33</sup>nə<sup>33</sup></u>	<u>bu<sup>21</sup></u>
male name	DSM	female name	carry
A		O	V

  
'Ashabo carried Anna.'
- b. 

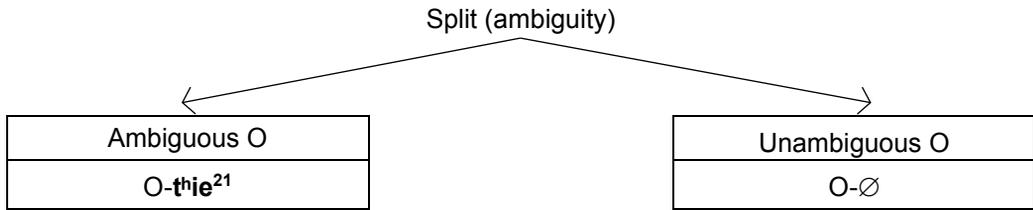
<u>a<sup>33</sup>nə<sup>33</sup></u>	<u>a<sup>33</sup>ʂa<sup>55</sup>po<sup>55</sup></u>	<u>la<sup>55</sup></u>	<u>bu<sup>21</sup></u>
female name	male name	DSM	carry
A	O		V

  
'Ashabo carried Anna.'

## B. DOM in Yongren Lolo

DOM in *Lolo*<sup>15</sup> is triggered by potential A/O-ambiguity and belongs to type III. The differential object marker *t<sup>h</sup>ie*<sup>21</sup> splits direct objects into those that are ambiguous with the subject and those that are not. This marker is only used if the meaning of the predicate does disambiguate between the subject and the object. This marker cannot be used when the predicate disambiguates between the subject and object.

<sup>15</sup> Lolo is a Central Loloish language spoken in Yǒngrén county of Yúnnán Province (P.R. of China). For a detailed description, see Gerner (2008).



The basic word order of subject and object is free. Ambiguous clauses such as those in (11) can and should be disambiguated by the object marker *thie*<sup>21</sup>.

- (11) a.   zɔ<sup>21</sup>   ɛɛ<sup>33</sup>mo<sup>33</sup>   tʃhɔ<sup>33</sup>   zi<sup>33</sup>.                      b.   ɛɛ<sup>33</sup>mo<sup>33</sup>   zɔ<sup>21</sup>   tʃhɔ<sup>33</sup>   zi<sup>33</sup>.  
           3.SG snake        follow go    snake        3.SG follow go  
 ‘He follows the snake. / The snake follows him.’ (For both a and b)

- (12) a.   si<sup>33</sup>ka<sup>55</sup>   χe<sup>33</sup>khu<sup>33</sup>   **thie**<sup>21</sup>   ti<sup>55</sup>   na<sup>33</sup>.  
           tree        house        DOM smash break  
           A                      O    V

‘The tree smashed the house.’

- b.   si<sup>33</sup>ka<sup>55</sup>   **thie**<sup>21</sup>   χe<sup>33</sup>khu<sup>33</sup>   ti<sup>55</sup>   na<sup>33</sup>.  
           tree        DOM house        smash break  
           A                      O    V

‘The house smashed the tree.’

The marker *thie*<sup>21</sup> is also used to disambiguate between the subject (A) and the indirect object (B). Sentence (13a) without *thie*<sup>21</sup> is ambiguous; sentence (13b) with *thie*<sup>21</sup> is disambiguated.

- (13) a.   ŋɔ<sup>33</sup>        su<sup>55</sup>bə<sup>21</sup>    zɔ<sup>21</sup>    mo<sup>55</sup>.  
           1.SG        book        3.SG    show  
           A/B                      O                      B/A        V

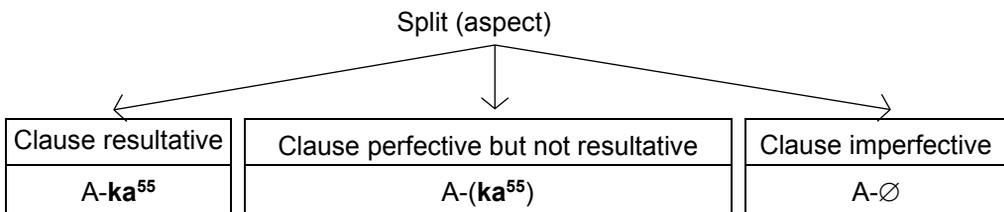
‘I showed him a book. / He showed me a book.’

- b.   ŋɔ<sup>33</sup>    su<sup>55</sup>bə<sup>21</sup>    zɔ<sup>21</sup>    **thie**<sup>21</sup>    mo<sup>55</sup>.  
           1.SG    book        3.SG    DOM    show  
           A                      O                      B    V

‘I showed him a book.’

## C. DSM in Gèjiù Nesu

DSM in *Nesu*<sup>16</sup> (and also Burmese) is triggered by the aspect of the clause and exhibits type IV. The Nesu particle *ka*<sup>55</sup> marks subjects differentially in accordance with the aspect of the whole clause. The subject must be case-marked, if the simple clause encodes a resultative state; it can be case-marked if the clause is perfective without implying a result. It cannot be case-marked if the clause is imperfective. The Burmese marker *ká*<sup>17</sup> exhibits similar properties as well.



The *Nesu* language has basic AOV order. The differential subject marker *ka*<sup>55</sup> is obligatory in monotransitive clauses with resultative state. This is also applicable on subjects (A) that are animate, as in (14), or inanimate, as seen in (15).

- (14)  $k\bar{a}^{55}$   $ka^{55}$   $nu^{33}mo^{21}s\bar{a}^{33}$   $tsi^{33}$   $a^{21}mu^{21}$   $t^h\epsilon^{21}$   $wa^{33}$ .  
 3.SG DSM yellow bean grind powder become DP  
 A O V

‘He ground the yellow beans to a fine powder.’

- (15)  $mu^{33}h\bar{i}^{33}$   $ka^{55}$   $h\bar{i}^{21}$   $p\epsilon^{21}$   $p\bar{a}^{33}$   $wa^{33}$ .  
 wind DSM house blow collapse DP  
 A O V

‘The storm blew down the house.’

<sup>16</sup> Nesu is a Southern Loloish language spoken by about 20,000 natives in Gèjiù city of Yúnnán Province (P.R. of China). For a description, see Gerner (2012b).

<sup>17</sup> See Jenny and Tun (2012).

The subject can be optionally marked in clauses that are not resultative or imperfective. Example (16) shows a quantized event, whereas example (17) exhibits a bounded event. Furthermore, ditransitive subjects can be optionally marked by *ka*<sup>55</sup>, as evidenced in (18).

(16)	kə <sup>55</sup>	<b>(ka<sup>55</sup>)</b>	sɿ <sup>33</sup>	sɛ <sup>33</sup>	dzə <sup>55</sup>	dzi <sup>33</sup>	wa <sup>33</sup> .
	3.SG	DSM	tree	NUM.3	CL	fell	DP
	A		O		V		

'He fell three trees.'

(17)	kə <sup>55</sup>	<b>(ka<sup>55</sup>)</b>	hĩ <sup>21</sup>	go <sup>21</sup>	pi <sup>21</sup> k <sup>h</sup> ə <sup>55</sup>	wa <sup>33</sup> .
	3.SG	DSM	house	door	close	DP
	A		O		V	

'He closed the door.'

(18)	kə <sup>55</sup>	<b>(ka<sup>55</sup>)</b>	zi <sup>21</sup> mo <sup>21</sup>	ts <sup>h</sup> i <sup>33</sup>	ŋo <sup>33</sup>	dze <sup>21</sup>	wa <sup>33</sup> .
	3.SG	DSM	money	lend	1.SG	COV.give	DP
	A		O	V	B		

'He lent me money.'

The differential subject marker *ka*<sup>55</sup> is prohibited in progressive transitive clauses, as seen in (19); in stative transitive clauses (20); and in intransitive clauses (21).

(19)	kə <sup>55</sup>	<b>(*ka<sup>55</sup>)</b>	t <sup>h</sup> ɛ <sup>33</sup> ɕe <sup>21</sup>	ts <sup>h</sup> i <sup>33</sup>	dzə <sup>21</sup> .
	3.SG	DSM	clothes	wash	PROG
	A		O	V	

'He is washing clothes.'

(20)	zi <sup>21</sup> fɛ <sup>21</sup>	p <sup>h</sup> o <sup>21</sup>	vi <sup>55</sup> la <sup>21</sup>	<b>(*ka<sup>55</sup>)</b>	zi <sup>21</sup>	ŋɛ <sup>33</sup> ts <sup>h</sup> ə <sup>21</sup> .
	dry	NOM	flower	SDM	water	need
	A				O	V

'The dry flower needs water.'

(21)	kə <sup>55</sup>	<b>(*ka<sup>55</sup>)</b>	ŋw <sup>55</sup>	tj <sup>21</sup> tj <sup>21</sup> .
	3.SG	DSM	cry, weep	IDE~
	S		V	

'He is weeping bitterly.'







- (32)    tsho<sup>33</sup>    hj<sup>55</sup>    zo<sup>21</sup>su<sup>33</sup>    thw<sup>21</sup>ze<sup>33</sup>    hu<sup>21</sup>    sa<sup>55</sup>.  
 people    NUM.8    ART (CL-DET)    book    see, read    EXH  
 ‘The eight people are all reading books.’
- (33)    tsho<sup>21</sup>yo<sup>44</sup>    si<sup>21</sup>hmi<sup>33</sup>    tsh<sup>33</sup>    ma<sup>33</sup>    dzu<sup>33</sup>    sa<sup>55</sup>    o<sup>44</sup>.  
 3.PL    nut    NUM.10    CL    eat    EXH    DP  
 (i) ‘They all ate ten nuts.’ (ii) ‘They completely ate up ten nuts.’ (iii) ‘They all completely ate up ten nuts.’
- (34)    i<sup>33</sup>ti<sup>44</sup>    a<sup>33</sup>dzi<sup>44</sup>    gu<sup>44</sup>    ndza<sup>55</sup>    sa<sup>55</sup>.  
 garment    DEM:DIST    CL    beautiful    EXH  
 ‘That garment is the most beautiful.’

### B. Ambiperfective Aspect in Yongren Lolo

In *Lolo*,<sup>22</sup> the sentence-final particle *do*<sup>55</sup>, termed ambiperfective particle, is used to convey imperfective (progressive) and perfective (completive) meanings, depending on the aspectual constitution of the clause. Table 1.8 depicted below provides an overview of the semantic contribution of the particle *do*<sup>55</sup> to different types of underlying clauses.

Underlying Clause	Contribution of ambiperfective <i>do</i> <sup>55</sup>
Punctual event	Perfective
Quantized event	Perfective / Imperfective
Bounded event	Perfective
Cumulative event	Imperfective

Table 1.8: The ambiperfective marker in Yǒngrén Lolo

Illustrations are given below. The ambiperfective particle, if appended to punctual events, conveys a (recent) perfective meaning, as seen in (35).

<sup>22</sup> Lolo is a Central Loloish language spoken in Yǒngrén county of Yúnnán Province (P.R. of China). The ambiperfective aspect is sketched in an article written by Gerner (2009c).

- (35)    ɔ<sup>55</sup>mu<sup>21</sup>lɔ<sup>33</sup>    tʰie<sup>21</sup>    ɔ<sup>55</sup>mu<sup>21</sup>ba<sup>21</sup>    tʰu<sup>21</sup>    lɔ<sup>33</sup>    do<sup>55</sup>.  
           sky                    LOC    flash                    exit    come    AMP  
           'A flash has (just) appeared in the sky.'

For quantized events,<sup>23</sup> the ambiperfective particle *do*<sup>55</sup> conveys both of its meanings: perfective as well as imperfective meaning, resulting in ambiguous sentences.

- (36)    zɔ<sup>21</sup>    ɔ<sup>55</sup>ɣo<sup>21</sup>    tʰɔ<sup>21</sup>    mo<sup>33</sup>    tɕhɛ<sup>21</sup>    do<sup>55</sup>.  
           3.SG    song            NUM.1    CL            sing    AMP  
           (i) 'She is singing a song.' (ii) 'She has just sung a song.'

Bounded events satisfy the property of *final stage closure*.<sup>24</sup> These are events such as *walk to the station*, for which each final stage again reflects an event of the type *walk to the station*. When appended to bounded events, the ambiperfective particle *do*<sup>55</sup> switches to a perfective marker.

- (37)    zɔ<sup>21</sup>    dzə<sup>21</sup>pʰi<sup>21</sup>    lɯ<sup>33</sup>    tʂo<sup>33</sup>    mo<sup>33</sup>    do<sup>55</sup>.  
           3.SG    money            purse    search    perceive    AMP  
           'She has just found her purse.'

Finally, for cumulative events,<sup>25</sup> the Ambi-Perfective operator communicates an imperfective meaning; its perfective meaning is eclipsed.

- (38)    zɔ<sup>21</sup>    kɛ<sup>55</sup>zi<sup>33</sup>    do<sup>33</sup>    do<sup>55</sup>.  
           3.SG    sweat            exit            AMP  
           'He is sweating.'

<sup>23</sup> The term *quantized* events was coined by Krifka (1989, 1992, 1998). These are quantified events, such as *eat three apples*, for which no proper subevent can again be of the type *eat three apples*.

<sup>24</sup> This property was first described by Krifka (1992) and Naumann (2001).

<sup>25</sup> The term cumulative event was first introduced by Quine (1960). Cumulative events are events for which any extension is again of the same event type.



# Chapter 2

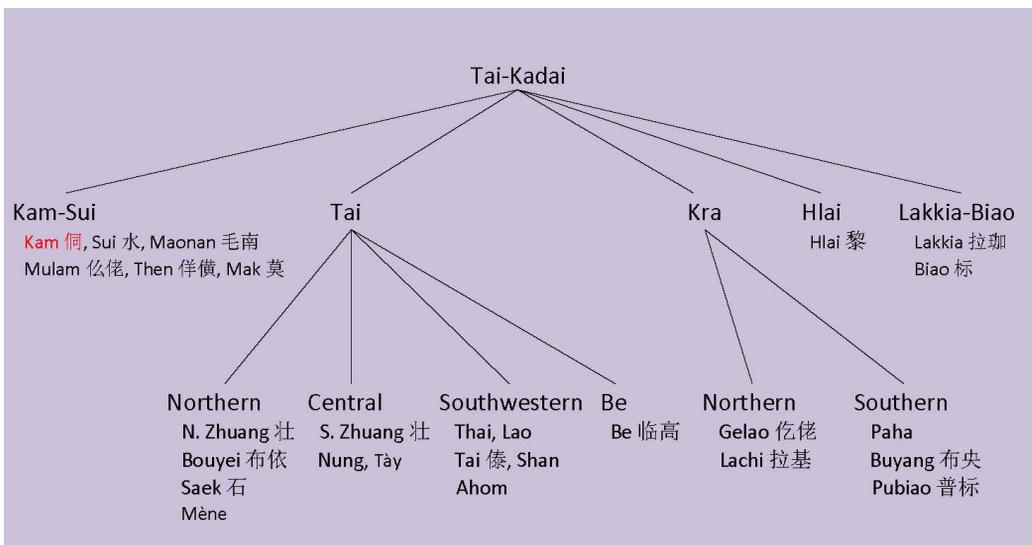
## Tai-Kadai Linguistics

### 2.1 Introduction

In this section, we describe a long-term phylogenetic project and document linguistic highlights of the Tai-Kadai family. The Tai-Kadai (or Kadai) languages are spoken in a large area of Southeast Asia that extends from Guizhou Province (China) in the North to half way down the Malay Peninsula.

### 2.2 Phylogenetics

Part of the content presented in the section “Phylogenetics” was published in Gerner (2014).



The Tai-Kadai (or Kadai) languages are spoken in a large area of Southeast Asia extending from Guizhōu Province (China) in the North<sup>1</sup> to half way down the Malay Peninsula. The westernmost languages of Tai-Kadai are the Shan dialects of Tai in Myanmar. In the East, we find Zhuang dialects spoken in Guǎngdōng Province.

‘Tai-Kadai’ is used as provisional term and subject to ongoing discussion over the past eighty years. The term ‘Kadai’ was coined by Benedict in the 1940s from the Gelao prefix *ka-* for *man* and from *dai*, which is one of the selfnames of the Hlai living on Hainan island (China). It originally accounted for non-Tai groups outside of Thailand. Since then, the label Kadai has undergone several transformations. At least four types of internal classification of Tai-Kadai languages have been proposed. The most common<sup>2</sup> of these classifications splits the Tai-Kadai languages into five groups: Kam-Sui, Tai, Kra, Hlai, and Lakia-Biao.

All previous phylogenetic work on Tai-Kadai languages was undertaken by linguists using the comparative method to a greater or lesser extent. No computational phylogenetic work has been undertaken so far. An integrative approach is necessary as the previous reconstruction work emphasized only smaller segments<sup>3</sup> of the Tai-Kadai languages.

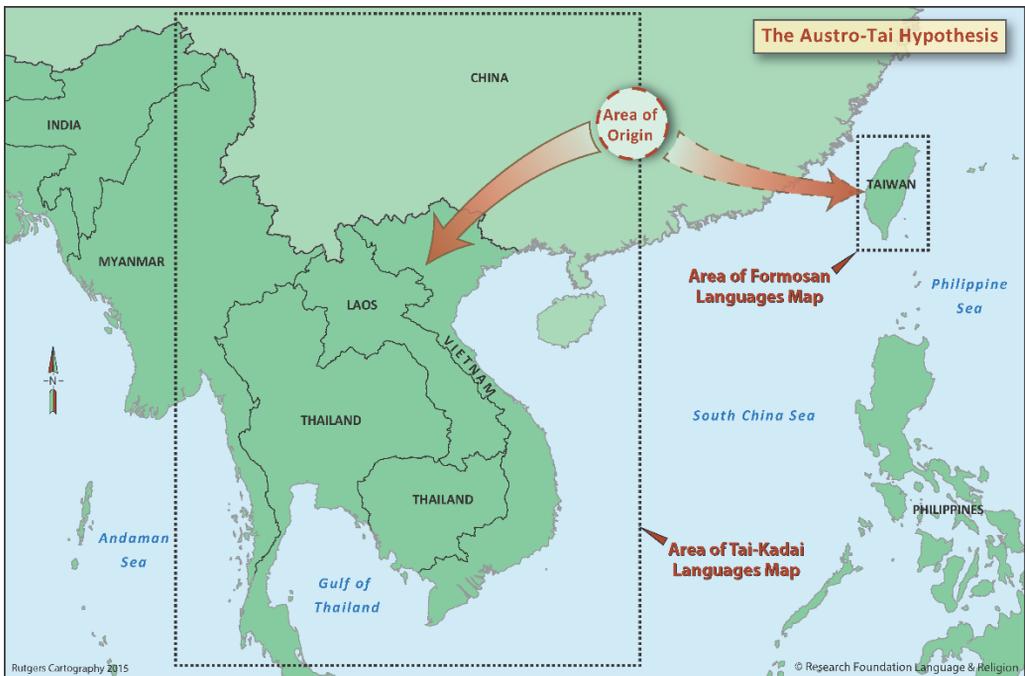
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<sup>1</sup> There are some minor Kam settlements in Hubei Province.

<sup>2</sup> Benedict (1975) and Edmondson and Solnit (1988) arranged the Kadai family into three groups: Kam-Tai, Hlai and Geyang, a residual group of lesser known languages. Later, they revised this classification for Kam-Tai by dissociating Tai and Kam-Sui (Edmondson and Solnit, 1997; Chamberlain, 1997; Diller, Edmondson and Luo, 2008). Subsequent classifications detailed the internal structure of other subgroups of the Kadai family such as the Kra group, a new name given to the Geyang group (Ostapirat, 2000) or the Hlai group (Norquest, 2007). Ostapirat’s “Krai-Dai” grouping provides an elaborate classification of 17 Gelao dialects (previously called Geyang or Kadai). Ostapirat’s classification is based on three shared innovations: partition of implosives, loss of labial endings, and lexical innovations. Ostapirat (2000:15) adopts the term ‘Kra’ as the reconstructed selfname of the Gelao ancestor. However, he also discards the term Kadai and Geyang. Norquest’s dissertation is a phonological reconstruction of Proto-Hlai on the basis of 12 Modern Hlai varieties, all of which are spoken on the island of Hainan (Norquest, 2007).

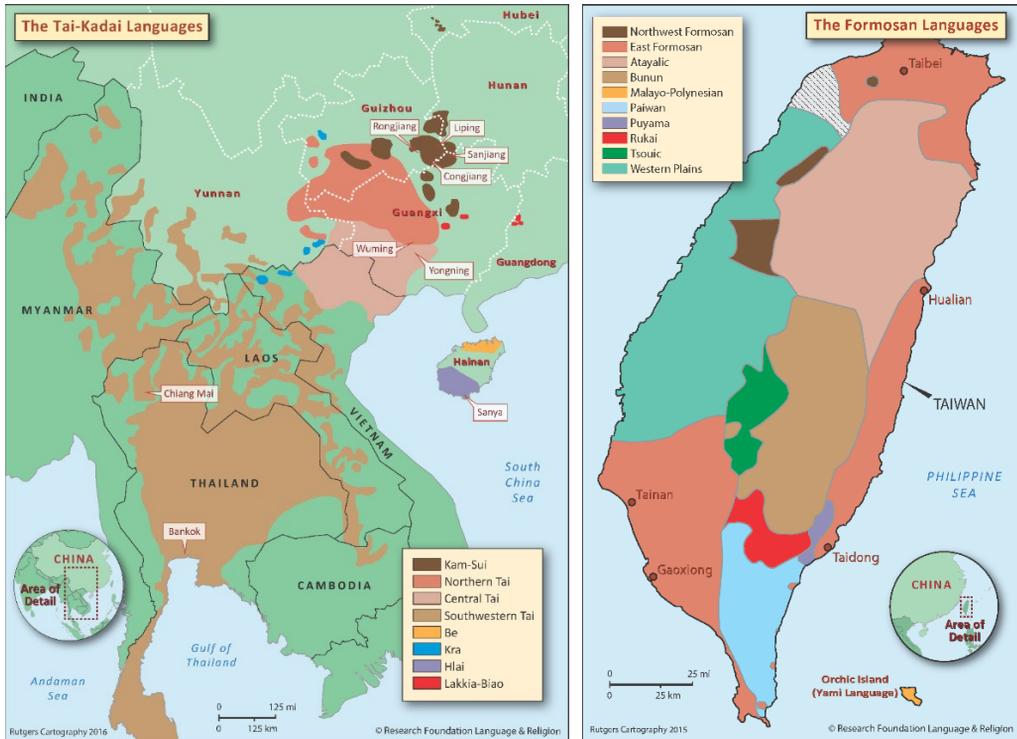
<sup>3</sup> This is especially true for the work of Ostapirat (2000) and Norquest (2007).

The linkage of the Tai-Kadai family with other language families in East Asia is a contentious issue. Paul Benedict<sup>4</sup> related Tai-Kadai to Austronesian languages (*Austro-Tai Hypothesis*), but Austronesian linguists were skeptical about the reconstructions and have characterized them as “too loose”.<sup>5</sup> If Tai-Kadai languages are genetically related to the Austronesian phylum, the “Austro-Tai” languages must have originated from an area in South China. During pre-historical times, the Austronesian peoples would have migrated to Taiwan (and then to other places across the Pacific Ocean), while the Tai-Kadai peoples moved to the Southwest (Malay Peninsula). The internal genetic relationship of Tai-Kadai languages would indicate the direction of this migration.



<sup>4</sup> Paul Benedict first proposed this connection between Tai-Kadai and Austronesian languages in 1942 and refined the “Austro-Tai Hypothesis” later in 1975 (Benedict 1942, 1975).

<sup>5</sup> Comments made by Ross (1994: 96).



The Formosan languages<sup>6</sup> spoken in Taiwan reflect the oldest layer of the massive Austronesian family. Linguists estimate the number of Formosan languages to be approximately 26: seven of which are extinct,<sup>7</sup> one or two of which are moribund,<sup>8</sup> and several more that are endangered. The indigenous

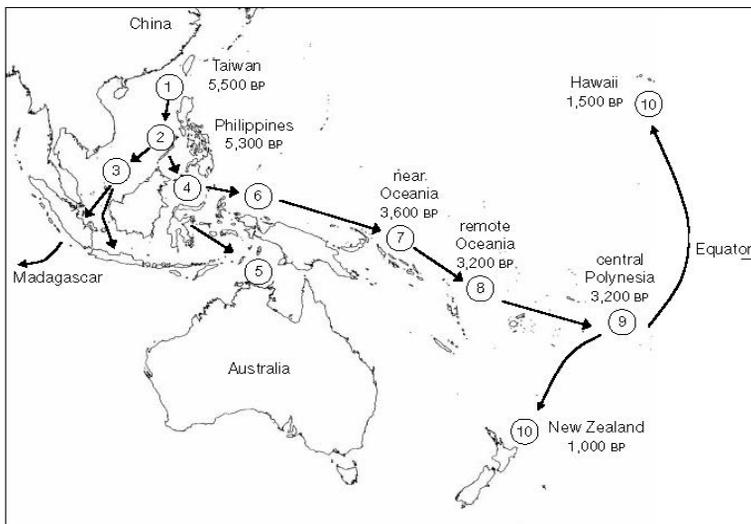
<sup>6</sup> Before 1958, Taiwan was called Formosa, a name derived from the Portuguese expression *Ilha Formosa* which means “Beautiful Island.”

<sup>7</sup> Basay 巴赛 (East Formosan, Kavalan) extinguished in the mid-20<sup>th</sup> century; Ketagalan 凯达格兰 (East Formosan, Kavalan) extinguished at an unknown date; Favorlang 虎尾壑 (Northern Formosan, Western Plains) extinguished in the mid-17<sup>th</sup> century; the Sinicized Papora 巴布拉 language (Northern Formosan, Western Plains) extinguished at an unknown date; the Sinicized Hoanya 和安雅 language (Northern Formosan, Western Plains) extinguished at an unknown date; Siraya 西拉雅 (Eastern Formosan) extinguished at the end of the 19<sup>th</sup> century; Pazeh 巴宰 (Northwest Formosan) extinguished in 2010.

<sup>8</sup> Babuza 巴布萨 (Northern Formosan, Western Plains) with 3-4 speakers in 2000 is moribund.

speakers belong to 16 official tribes<sup>9</sup> numbering 533,600 people, which comprise 2% of the island's population.

Important Austronesian include Malay, Javanese, Tagalog, Hawaiian, Malagasy (westernmost), Māori (southernmost), Rapanui (easternmost). The Austronesian languages are believed to have originated from Taiwan. Within a short lapse of time (between 4,000 and 2,000 BC), Austronesian speakers 'rapidly' moved throughout the Pacific. Austronesian specialists refer to this migration wave as the "express train to Polynesia" (see map below). From Taiwan, Austronesians moved to the Philippines, split into those who set out for Sumatra and later to Madagascar and those who went eastward to Sulawesi, West Papua, Oceania, Polynesia and even New Zealand (Maori) and the island of Hawaii. The "express train to Polynesia"-Hypothesis was validated by computational phylogenetic methods.<sup>10</sup>



Map: *The Austronesian Colonization of the Pacific*<sup>11</sup>

<sup>9</sup> According to *The China Post* dated June 27, 2014, there are 16 officially recognized tribes in Taiwan: Amis 阿美族, Atayal 泰雅族, Bunun 布农族, Saaroa 沙阿鲁阿族, Kanakanvu 卡那卡那富族, Kavalan 噶玛兰族, Paiwan 排湾族, Puyuma 卑南族, Rukai 鲁凯族, Saisiyat 赛夏族, Yami 雅美族, Thao 邵族, Tsou 邹族, Truku 太鲁阁族, Sakizaya 撒奇莱雅族, and Seediq 赛德克族.

<sup>10</sup> See Gray and Jordan (2000).

<sup>11</sup> This map is quoted from Gray and Jordan (2000:1053).

## 2.3 Documentation

In this section, we survey the Tai-Kadai family in the domains of phonology, morphology, syntax, tense, aspect, and mood.

### 2.3.1 *Phonology*

Tai-Kadai languages exhibit similar phonological systems, with (C)(C)V(V)(C)<sup>T</sup> being the basic syllable structure. These languages use relatively large inventories of consonants, vowels, and tones.

#### A. Consonants

The hallmark of Tai-Kadai consonant systems is the presence of labialized/palatalized consonants and their relatively large size (with more than 30 simple and 15 labialized/palatalized consonants). We sketch two outstanding consonant systems below: the *Buyang*<sup>12</sup> simple consonants and the *Thai*<sup>13</sup> complex consonants.

The *Buyang* language exhibits a remarkable system of 28 non-fricative consonants<sup>14</sup> which contrast aspirated with non-aspirated consonants throughout all points and modes of articulation. Of particular significance are the subsets of four unvoiced plosive (first frame), three voiced plosive (second frame), four nasal (third frame), two glide (fourth frame) and one lateral points of articulation (fifth frame).

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<sup>12</sup> The *Buyang* 布央 language is spoken by a group of 2,000 people in three locations: in eight villages of Fùníng 富宁 county of Yúnnán 云南; in Guǎngnán 广南 county, Yunnan province and in Nàpō 那坡 county of Guǎngxī 广西 province. The data originate from Li and Luo's grammar published in 2010.

<sup>13</sup> Thai, or Siamese, is the national and official language of Thailand and the first language of 20 million Thai people, in addition to being the second language of 40 million people. Thai is a Southwestern Tai language. The data in this section have been quoted from Iwasaki and Ingkaphirom's Thai reference grammar (2005).

<sup>14</sup> In addition to these 28 non-fricative consonants, there are also 10 fricative, 5 palatalized, and 15 labialized consonants.

[p]: pi <sup>33</sup> 'duck'	[t]: ta:k <sup>33</sup> 'vomit'		[k]: ka <sup>322</sup> 'handle'	[q]: qa <sup>322</sup> 'grass'
[p <sup>h</sup> ]: p <sup>h</sup> i <sup>33</sup> 'smell'	[t <sup>h</sup> ]: t <sup>h</sup> a:k <sup>33</sup> 'to nail'		[k <sup>h</sup> ]: k <sup>h</sup> ɔ <sup>33</sup> 'afternoon'	[q <sup>h</sup> ]: q <sup>h</sup> ɔ <sup>33</sup> 'bone'
[b]: ba:u <sup>33</sup> 'hug'	[d]: da <sup>33</sup> 'boat'		[g]: ga <sup>45</sup> 'water'	
[b <sup>h</sup> ]: b <sup>h</sup> a:u <sup>33</sup> i <sup>33</sup> 'wave'	[d <sup>h</sup> ]: d <sup>h</sup> a <sup>33</sup> 'wine'		[g <sup>h</sup> ]: g <sup>h</sup> a <sup>45</sup> 'light'	
[m]: man <sup>322</sup> 'flee'	[n]: nuŋ <sup>322</sup> 'dirty'	[ŋ]: ŋɛ <sup>33</sup> 'only'	[ŋ]: ŋu <sup>33</sup> 'pus'	
[m <sup>h</sup> ]: m <sup>h</sup> an <sup>322</sup> 'porcupine'	[n <sup>h</sup> ]: n <sup>h</sup> uŋ <sup>322</sup> 'muddy'	[ŋ <sup>h</sup> ]: ŋ <sup>h</sup> ɛ <sup>33</sup> 'sea'	[ŋ <sup>h</sup> ]: ŋ <sup>h</sup> u <sup>33</sup> 'sweet'	
[w]: wi <sup>33</sup> 'night'		[j]: ja <sup>11</sup> 'female'		
[w <sup>h</sup> ]: w <sup>h</sup> i <sup>33</sup> 'sack'		[j <sup>h</sup> ]: j <sup>h</sup> a <sup>11</sup> 'throw'		
		[l]: la:k <sup>33</sup> 'understand'		
		[l <sup>h</sup> ]: l <sup>h</sup> a:k <sup>33</sup> 'collapse'		

Table 2.1: The Buyang aspirated consonants

In *Thai*,<sup>15</sup> it is not the simple consonants, but the 11 consonant clusters that are truly remarkable. These clusters, which involve a voiceless plosive and a liquid ([l], [r]) or glide sound ([w]), are exemplified below.

[pr]: pra <sup>42</sup> wat <sup>42</sup> 'story'	[tr]: truat <sup>11</sup> 'examine'		[kr]: kruŋ <sup>33</sup> the:p <sup>42</sup> 'Bangkok'
[p <sup>h</sup> r]: p <sup>h</sup> ra <sup>24</sup> son <sup>24</sup> 'monk'			[k <sup>h</sup> r]: k <sup>h</sup> ru: <sup>33</sup> 'teacher'
[pl]: pla: <sup>33</sup> 'fish'			[kl]: kla: <sup>42</sup> 'brave'
[p <sup>h</sup> l]: p <sup>h</sup> lo: <sup>11</sup> 'appear'			[k <sup>h</sup> l]: k <sup>h</sup> lan <sup>33</sup> 'treasury'
			[kw]: kwa:ŋ <sup>42</sup> 'wide'
			[k <sup>h</sup> w]: k <sup>h</sup> wa:ŋ <sup>42</sup> 'hurl'

Table 2.2: The Thai consonant clusters

<sup>15</sup> See Iwasaki and Ingkaphirom (2005: 5).

## B. Vowels and Tones

The vowel system in *Lao*<sup>16</sup> represents the Tai-Kadai languages with a typologically large number of distinct points in the vowel space, nine, and with regular short/long contrasts. Furthermore, there are three diphthongs. The vowel system is almost identical to the vowel system of *Thai*.<sup>17</sup>

Vowel type	unrounded			rounded
	front	central	back	back
Monophthongs	high i, i:		ʉ, ʉ:	u, u:
	mid e, e:	ə, ə:		o, o:
	low ɛ, ɛ:	a, a:		ɔ, ɔ:
Diphthongs	ia		wa	ua

Table 2.3: *The Lao vowel system*

Tai-Kadai languages exhibit between five and nine phonological tones. Thai with five contrastive tones is at the low end and Kam with nine contrastive tones at the high end of this scale. *Maonan*,<sup>18</sup> *Nung*<sup>19</sup> use six and *Buyang*<sup>20</sup> seven

<sup>16</sup> The Lao language is spoken as first language by more than 21 million people: by three million out of 5.6 million citizens in the Lao People's Democratic Republic, and by more than 18 million people in northeastern Thailand where it is referred to as the Isan language. Lao/Isan is intelligible with Thai, the national language of Thailand. The Thai and Lao scripts are similar in that both are derived from the Khmer script in Angkor in 1283 (Thai) and in 1350 (Lao). However, they differ in several respects as well. The Lao script uses fewer characters and the shape of its characters is more curvilinear (Ronnakiat 1992; Lew 2014). In this section, the language data originate from Enfield's *Lao Grammar* (2007).

<sup>17</sup> See Iwasaki and Ingkaphirom (2005: 5).

<sup>18</sup> According to the Chinese 2000 census, the Maonan 毛南 language is spoken by 107,166 people in eight counties of Northwestern Guangxi (环江 Huánjiāng, Héchí 河池, Nándān 南丹, Tiān'é 天峨, Dū'ān 都安, Yízhōu 宜州, Róng'ān 融安) and in three counties of Southern Guizhou (Píngtáng 平塘, Huishuǐ 惠水, Dúshān 独山).

<sup>19</sup> According to the 2009 census of the Vietnamese Government, different varieties of the Nung language are spoken by 970,000 people in the provinces of Lạng Sơn and Cao Bằng of Northern Vietnam as well as across the border in Nàpō 那坡 County of Guangxi Province, China. The Nung language is a Central Tai language. The data presented in this section originate from Saul and Freiberger Wilson's grammar published in 1980.

<sup>20</sup> See Li and Luo (2010: 11).

tones. The two undulated tones of *Maonan* and *Kam* ([<sup>231</sup>] and [<sup>213</sup>], respectively [<sup>323</sup>] and [<sup>453</sup>]) are notable.

<b>Thai</b> <sup>21</sup>	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>11</sup> ]	[ <sup>24</sup> ]	[ <sup>42</sup> ]		
(Thailand)	kʰa: <sup>55</sup> 'trade'	kʰa: <sup>55</sup> 'unsettle'	kʰa: <sup>11</sup> 'root'	kʰa: <sup>24</sup> 'leg'	kʰa: <sup>42</sup> 'kill'		
	5 tones						
<b>Maonan</b> <sup>22</sup>	[ <sup>44</sup> ]			[ <sup>24</sup> ]	[ <sup>42</sup> ]	[ <sup>51</sup> ]	[ <sup>231</sup> ] [ <sup>213</sup> ]
(China)	ma <sup>44</sup> 'to steep'			ma <sup>24</sup> 'rack'	ma <sup>42</sup> 'dog'	ma <sup>51</sup>	ma <sup>231</sup> 'tongue' ma <sup>213</sup> 'feed'
	6 tones						
						'stepmother'	
<b>Buyang</b> <sup>23</sup>	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>11</sup> ]	[ <sup>24</sup> ]	[ <sup>31</sup> ]	[ <sup>45</sup> ]	[ <sup>322</sup> ]
(China)	tɿ <sup>55</sup> 'one'	tɿ <sup>33</sup> 'pair'	tɿ <sup>11</sup> 'bowl'	tɿ <sup>24</sup> 'whittle'	tɿ <sup>31</sup> 'wash'		tɿ <sup>322</sup> 'empty'
	7 tones						
	tan <sup>55</sup> tɕʰu <sup>33</sup> 'market'	tan <sup>33</sup> 'flat'		tan <sup>24</sup> 'soak'	tan <sup>31</sup> 'paddle'	tan <sup>45</sup> 'stand'	
<b>Kam</b> <sup>24</sup>	[ <sup>55</sup> ]	[ <sup>33</sup> ]	[ <sup>11</sup> ]	[ <sup>13</sup> ]	[ <sup>31</sup> ]	[ <sup>35</sup> ]	[ <sup>53</sup> ] [ <sup>323</sup> ] [ <sup>453</sup> ]
(China)	ma <sup>55</sup> 'vegetables'	ma <sup>33</sup> 'chew'	ma <sup>11</sup> 'tongue'		ma <sup>31</sup> 'horse'	ma <sup>35</sup> 'come'	ma <sup>323</sup> 'cloud' ma <sup>453</sup> 'soak'
	9 tones						
	ja <sup>55</sup> 'cloth'	ja <sup>33</sup> 'also'	ja <sup>11</sup> 'two'	ja <sup>13</sup> 'handkerch.'	ja <sup>31</sup> 'evil'	ja <sup>53</sup> 'field'	ja <sup>453</sup> 'red'

### 2.3.2 Morphology

The Tai-Kadai languages use an isolating morphology with an overwhelming supply of mono- and disyllabic words. With the exception of Thai, which was in contact with inflectional languages, Tai-Kadai languages use grammaticalized semi-bound clitics, as opposed to bound fixes. In this regard, reduplication processes are a ubiquitous morphological tool employed by Tai-Kadai languages. In this section, we survey common clitics, reduplication processes, personal pronouns, and nominal classifiers of Tai-Kadai languages.

<sup>21</sup> See Iwasaki and Ingkaphirom (2005:5).

<sup>22</sup> The Maonan 毛南 data originate from Lu Tianqiao (2008:91)'s *Grammar of Maonan*. In addition to the tones listed here, Lu reports two tone variants of [<sup>44</sup>] and [<sup>24</sup>] in checked syllables.

<sup>23</sup> With regard to the data in Buyang, see Li and Luo (2010: 11).

<sup>24</sup> The Kam data originate from Southern Kam (Róngjiāng 榕江 county) and are the fieldwork data of Matthias Gerner 1995-2008.

## A. Clitics in Tai-Kadai

Tai-Kadai languages employ clitics instead of affixes. Clitics exhibit less strong bonds with their hosts and preserve their original lexical meaning in many cases. *Thai* is the only Tai-Kadai language that uses affixes in addition to clitics. It is interesting to note that most of these affixes are borrowed from *Sanskrit*, *Pali*, or *Khmer* with which *Thai* was in contact for centuries. The most common clitics in the Tai-Kadai languages are the diminutive and augmentative clitics, the clitic of professions, and the spatial clitic. The diminutive proclitic is lexicalized<sup>25</sup> from *\*luk* ‘child’, whereas the augmentative proclitics are lexicalized either from *\*me* ‘mother’ or *\*pa* ‘father’ in the Proto-Tai-Kadai language. The ‘profession’ proclitic is derived from the old noun *\*ɕaŋ* ‘artisan’, and the spatial proclitic is lexicalized from *\*kʰaŋ* ‘side’ which can also be used as classifier for members of a pair in many Tai-Kadai languages. (Cognate forms in Table 2.4 are marked in bold font.)

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<sup>25</sup> There is lack of consensus among scholars on derivational affixes/clitics. Lehmann (1989:12) and others opine that derivational affixes are derived from roots in compounds as an instance of lexicalization (e.g. the Old High German noun *haidus* ‘pattern’ > Modern High German Schön-*heit*), while Ramat (1992), Hopper and Traugott (1993) and others contend that these processes are examples of grammaticalization. For us, *productivity* is an important criterion: The English productive suffix *-ly* (from *-lic* ‘body’) is an instance of grammaticalization, while the derivational suffixes *-heit*, or *-dom* look like instances of lexicalization.

Clitic and host	<i>Kam</i> <sup>26</sup>	<i>Zhuang</i> <sup>27</sup>	<i>Thai</i> <sup>28</sup>	<i>Buyang</i> <sup>29</sup>	<i>Hlai</i>
diminutive					
'child, son'	lak <sup>31</sup> (un <sup>323</sup> )	luk <sup>21</sup>	lu:k <sup>42</sup> (tə'hɑ:j <sup>33</sup> )	la:k <sup>11</sup>	ɬw:k <sup>55</sup>
'girl, daughter'	lak <sup>31</sup> miek <sup>323</sup>	luk <sup>21</sup> θa:u <sup>24</sup>	lu:k <sup>42</sup> sa:w <sup>24</sup>	la:k <sup>11</sup> pa <sup>33</sup> mai <sup>11</sup>	ɬw:k <sup>55</sup> u:ŋ <sup>53</sup>
'piglet'	lak <sup>31</sup> ŋu <sup>453</sup>	mou <sup>24</sup> luk <sup>21</sup>	lu:k <sup>42</sup> mu: <sup>24</sup>	la:k <sup>11</sup> mu <sup>31</sup>	ɬw:k <sup>55</sup> bou <sup>53</sup>
'chestnut'	lak <sup>31</sup> lət <sup>11</sup>	luk <sup>21</sup> lat <sup>21</sup>	lu:k <sup>42</sup> hɛ:w <sup>42</sup>	la:k <sup>11</sup> ma <sup>55</sup> oi <sup>33</sup>	
'finger' (little hand)	lak <sup>31</sup> mia <sup>11</sup>	luk <sup>21</sup> furŋ <sup>42</sup>		la:k <sup>11</sup> qɛ <sup>322</sup>	
'spindle' (little loom)	lak <sup>31</sup> ɬa <sup>13</sup>				
'bullet' (little bomb)		luk <sup>21</sup> ma <sup>33</sup>	lu:k <sup>42</sup> kraʔ <sup>11</sup> sun <sup>24</sup>		
augmentative					
'mother'	nəi <sup>31</sup>	me <sup>21</sup>	mɛ: <sup>42</sup>	ja <sup>11</sup>	pai <sup>11</sup>
'female'	məi <sup>31</sup>	me <sup>21</sup>	mɛ: <sup>42</sup>	ja <sup>11</sup>	pai <sup>11</sup>
'father'	pu <sup>31</sup>	po <sup>21</sup>	pʰɔ: <sup>42</sup>	pa <sup>33</sup>	pʰa <sup>11</sup>
'male'	dak <sup>11</sup>	pou <sup>33</sup>	pʰu: <sup>42</sup>	pa:u <sup>45</sup>	pʰa <sup>11</sup>
'uncle; godfather'	pu <sup>31</sup> lau <sup>31</sup>	po <sup>21</sup> kei <sup>44</sup>	pʰɔ: <sup>42</sup> ʔup <sup>11</sup> pa <sup>11</sup> tham <sup>24</sup>	pa <sup>33</sup> la:u <sup>31</sup>	
'bull'	dak <sup>11</sup> sən <sup>11</sup>	ɬw <sup>33</sup> pou <sup>33</sup>	wu:a <sup>33</sup> tu:a <sup>33</sup> pʰu: <sup>42</sup>	pa:u <sup>45</sup> nhw <sup>33</sup>	pʰa <sup>11</sup> ŋju <sup>53</sup>
'cow'	məi <sup>31</sup> sən <sup>11</sup>	ɬw <sup>33</sup> me <sup>21</sup>	mɛ: <sup>42</sup> kʰo: <sup>33</sup>	ja <sup>11</sup> nhw <sup>33</sup>	pai <sup>11</sup> ŋju <sup>53</sup>
'rooster' (male)	dak <sup>11</sup> ai <sup>53</sup>	kai <sup>44</sup> pou <sup>33</sup>	kaj <sup>11</sup> tu:a <sup>33</sup> pʰu: <sup>42</sup>	pa:u <sup>45</sup> qai <sup>322</sup>	pʰa <sup>11</sup> kʰai <sup>53</sup>
'hen' (female)	məi <sup>31</sup> ai <sup>53</sup>	kai <sup>44</sup> me <sup>21</sup>	mɛ: <sup>42</sup> kaj <sup>11</sup>	ja <sup>11</sup> qai <sup>322</sup>	pai <sup>11</sup> kʰai <sup>53</sup>
'thumb' (big hand)	məi <sup>31</sup> mia <sup>11</sup>	me <sup>21</sup> furŋ <sup>42</sup>	hu:a <sup>24</sup> mɛ: <sup>42</sup> mw: <sup>33</sup>	ja <sup>11</sup> qɛ <sup>322</sup>	pai <sup>11</sup> zi:ŋ <sup>55</sup>
'thigh' (big leg)		me <sup>21</sup> ka <sup>24</sup>		ɬa <sup>11</sup> pa:u <sup>45</sup>	
'daytime' (big day)					pai <sup>11</sup> hwan <sup>53</sup>
'river' (big water)			mɛ: <sup>42</sup> na:m <sup>55</sup>	ja <sup>11</sup> ʔɔŋ <sup>45</sup>	

Table 2.4: Clitics in five Tai-Kadai languages

<sup>26</sup> The Kam data originate from Southern Kam (Róngjiāng 榕江 county) and are the fieldwork data of Matthias Gerner 1995-2003.

<sup>27</sup> The Zhuang data in this section are Standard Zhuang (from Guǎngxī 广西, Nǎnníng 南宁, Wǔmíng 武鸣) that were collected by Matthias Gerner during 1996-2003. The data were compared with Qin (2004)'s lexicological data. The diminutive and augmentative affixes are generally preposed to the noun, and are sometimes suffixed as well. The term for 'father' is *po*<sup>21</sup> and sounds similar to the human classifier *pou*<sup>33</sup>. Both forms are used to encode different social relations.

<sup>28</sup> See Iwasaki and Ingkaphirom (2005: 18). The diminutive clitic *lu:k*<sup>42</sup> in Thai also functions as classifier for large roundish objects.

<sup>29</sup> See Li and Luo (2010: 29).

Clitic and host	<i>Kam</i>	<i>Zhuang</i> <sup>30</sup>	<i>Thai</i>	<i>Buyang</i>	<i>Hlai</i>
'profession'					
'blacksmith'	ɛaŋ <sup>33</sup> tun <sup>53</sup>	ɛaŋ <sup>21</sup> ti:t <sup>44</sup>	tɛa:ŋ <sup>42</sup> tj:33lek <sup>11</sup>	tɛa:ŋ <sup>31</sup> qan <sup>45</sup>	tʂhai <sup>11</sup> be <sup>55</sup> tʂai:i <sup>55</sup> go:i <sup>53</sup>
'goldsmith'	ɛaŋ <sup>33</sup> tɛəm <sup>55</sup>	ɛaŋ <sup>21</sup> kim <sup>24</sup>	tɛa:ŋ <sup>42</sup> tʰo:ŋ <sup>33</sup>	tɛa:ŋ <sup>31</sup> tɛa:i <sup>45</sup>	tʂhai <sup>11</sup> be <sup>55</sup> tʂhai <sup>53</sup>
'carpenter'	ɛaŋ <sup>33</sup> məi <sup>31</sup>	ɛaŋ <sup>21</sup> fai <sup>33</sup>	tɛa:ŋ <sup>42</sup> ma:j <sup>55</sup>	tɛa:ŋ <sup>31</sup> ma <sup>55</sup> ti:322	tʂhai <sup>11</sup> be <sup>55</sup> tʂhai <sup>53</sup>
'song master'	ɛaŋ <sup>33</sup> a <sup>55</sup>	ɛaŋ <sup>21</sup> fu:n <sup>24</sup>		(pa <sup>33</sup> θu <sup>31</sup> jan <sup>33</sup> )	
'wizard'	ɛaŋ <sup>33</sup> səu <sup>13</sup>	ɛaŋ <sup>21</sup> jaw <sup>55</sup> ti:k <sup>21</sup>		(pa <sup>33</sup> pi <sup>45</sup> )	
'servant'	(lak <sup>31</sup> əi <sup>13</sup> )	(pou <sup>33</sup> ho:i <sup>44</sup> )		(pa <sup>33</sup> pa <sup>24</sup> )	
'side'					
'in front of'	maŋ <sup>53</sup> un <sup>53</sup>	pa:i <sup>21</sup> na <sup>55</sup>	kʰa:ŋ <sup>42</sup> na: <sup>42</sup>	ʔan <sup>322</sup> jha <sup>33</sup>	(dan <sup>53</sup> )
'behind'	maŋ <sup>53</sup> lən <sup>11</sup>	pa:i <sup>21</sup> lan <sup>24</sup>	kʰa:ŋ <sup>42</sup> lan <sup>24</sup>	ʔan <sup>322</sup> lan <sup>31</sup>	(dui <sup>11</sup> )
'left'	maŋ <sup>53</sup> ɛe <sup>323</sup>	pa:i <sup>21</sup> θu:w:i <sup>33</sup>	kʰa:ŋ <sup>42</sup> sa:j <sup>55</sup>	ma <sup>33</sup> mit <sup>11</sup>	pʰai <sup>11</sup> tʰum <sup>11</sup>
'right'	maŋ <sup>53</sup> wa <sup>35</sup>	pa:i <sup>21</sup> kva <sup>42</sup>	kʰa:ŋ <sup>42</sup> kʰwa: <sup>24</sup>	ma <sup>33</sup> ma:ŋ <sup>24</sup>	pʰai <sup>11</sup> ten <sup>55</sup>
'above'	maŋ <sup>53</sup> u <sup>55</sup>	pa:i <sup>21</sup> kwn <sup>42</sup>	kʰa:ŋ <sup>42</sup> nɛa <sup>24</sup>	ma:ŋ <sup>33</sup> naw <sup>24</sup>	pʰai <sup>11</sup> tew <sup>53</sup>
'below'	maŋ <sup>53</sup> te <sup>323</sup>	pa:i <sup>21</sup> la <sup>55</sup>	kʰa:ŋ <sup>42</sup> ta:j <sup>42</sup>	ma:ŋ <sup>33</sup> də <sup>33</sup>	pʰai <sup>11</sup> fou <sup>53</sup>

Table 2.4: *Clitics in five Tai-Kadai languages (continued)*

## B. Reduplication in Zhuang and Kam

Tai-Kadai languages allow the reduplication of nouns, classifiers, verbs, adjectives, ideophones, as well as certain determiners and adverbs. This reduplication conveys expressive and even sound-symbolic meanings. In this section, we describe two representative languages: Zhuang and Kam.<sup>31</sup>

It is possible to reduplicate monosyllabic count nouns, classifiers, and measure nouns, which can convey the meaning of distributive universal quantification.

<sup>30</sup> Alternative forms for pa:i<sup>21</sup>θu:w:i<sup>33</sup> 'left' and pa:i<sup>21</sup>kva<sup>42</sup> 'right' are mbi:ŋ<sup>55</sup>θu:w:i<sup>33</sup> 'left' and mbi:ŋ<sup>55</sup>kva<sup>42</sup> 'right'.

<sup>31</sup> The data presented in this section originate from Gerner (2010), a journal article which integrates elicited data of the Zhuang and Kam languages. The varieties used are Standard Zhuang (from Guǎngxī 广西, Nánning 南宁, Wǔmíng 武鸣), and Southern Kam (from Guizhōu 贵州 Róngjiāng 榕江).



- (4) a. pu<sup>31</sup> lak<sup>31</sup> father son  
'father-son; clan; tribe'
- b. pu<sup>31</sup>pu<sup>31</sup> lak<sup>31</sup>lak<sup>31</sup> father~all son~all  
'whole clan; whole tribe'

Reduplication is possible on the majority of verbs in Zhuang and Kam, but not on a substantial portion of these two languages. No clear rule distinguishes those that can from those that cannot. Equivalent verbs of other Tai-Kadai languages follow Zhuang and Kam and tend either to allow or to disallow reduplication.

<i>Zhuang</i>	<i>Kam</i>	<i>Meaning</i>	<i>Zhuang</i>	<i>Kam</i>	<i>Meaning</i>
tai <sup>55</sup>	ne <sup>323</sup>	'cry'	tai <sup>55</sup> tai <sup>55</sup>	ne <sup>323</sup> ne <sup>323</sup>	'cry and cry'
vu:n <sup>33</sup>	wan <sup>33</sup>	'change'	vu:n <sup>33</sup> vu:n <sup>33</sup>	wan <sup>33</sup> wan <sup>33</sup>	'change and change'
ɛa:m <sup>24</sup>	ham <sup>453</sup>	'ask'	ɛa:m <sup>24</sup> ɛa:m <sup>24</sup>	ham <sup>453</sup> ham <sup>453</sup>	'ask and ask'
θwi <sup>35</sup>	ɛuk <sup>323</sup>	'wash'	θwi <sup>35</sup> θwi <sup>35</sup>	ɛuk <sup>323</sup> ɛuk <sup>323</sup>	'wash and wash'
θo:n <sup>24</sup>	eu <sup>323</sup>	'teach'	θo:n <sup>24</sup> θo:n <sup>24</sup>	eu <sup>323</sup> eu <sup>323</sup>	'teach and teach'
bin <sup>24</sup>	pən <sup>323</sup>	'fly'	bin <sup>24</sup> bin <sup>24</sup>	pən <sup>323</sup> pən <sup>323</sup>	'fly and fly'
haw <sup>55</sup>	to <sup>323</sup>	'give'	haw <sup>55</sup> haw <sup>55</sup>	to <sup>323</sup> to <sup>323</sup>	'give and give'
dai <sup>55</sup>	lɪ <sup>323</sup>	'receive'	*dai <sup>55</sup> dai <sup>55</sup>	*lɪ <sup>323</sup> lɪ <sup>323</sup>	---
tuɔk <sup>33</sup>	tɛaŋ <sup>323</sup>	'be'	*tuɔk <sup>33</sup> tuɔk <sup>33</sup>	*tɛaŋ <sup>323</sup> tɛaŋ <sup>323</sup>	---
θan <sup>35</sup>	sən <sup>453</sup>	'believe'	*θan <sup>35</sup> θan <sup>35</sup>	*sən <sup>453</sup> sən <sup>453</sup>	---
ɣo <sup>33</sup>	ləu <sup>33</sup>	'leak'	*ɣo <sup>33</sup> ɣo <sup>33</sup>	*ləu <sup>33</sup> ləu <sup>33</sup>	---
lum <sup>31</sup>	lam <sup>11</sup>	'forget'	*lum <sup>31</sup> lum <sup>31</sup>	*lam <sup>11</sup> lam <sup>11</sup>	---
tok <sup>55</sup>	tok <sup>55</sup>	'fall'	*tok <sup>55</sup> tok <sup>55</sup>	*tok <sup>55</sup> tok <sup>55</sup>	---
law <sup>24</sup>	tap <sup>11</sup>	'lose'	*law <sup>24</sup> law <sup>24</sup>	*law <sup>24</sup> law <sup>24</sup>	---
puŋ <sup>35</sup>	sup <sup>323</sup>	'run into'	*puŋ <sup>35</sup> puŋ <sup>35</sup>	*puŋ <sup>35</sup> puŋ <sup>35</sup>	---

Table 2.6: Reduplication of monosyllabic verbs

Zhuang exhibits submorphemic reduplication of the verb, a rare pattern found in no other Tai-Kadai language. The initial consonant of a verb (C) is copied to the epenthetic syllable *aw*<sup>35</sup> (C-*aw*<sup>35</sup>). This process conveys the speed of a dynamic activity.

Verb	Verb~C-aw <sup>35</sup>	Verb	Verb~C-aw <sup>35</sup>
ai <sup>24</sup> 'cough'	ai <sup>24</sup> aw <sup>35</sup> 'cough quickly'	fou <sup>24</sup> 'rub'	fou <sup>24</sup> faw <sup>35</sup> 'rub quickly'
eu <sup>55</sup> 'break'	eu <sup>55</sup> aw <sup>35</sup> 'break quickly'	va:t <sup>35</sup> 'dig'	va:t <sup>35</sup> vaw <sup>35</sup> 'dig quickly'
i:t <sup>35</sup> 'stretch'	i:t <sup>35</sup> aw <sup>35</sup> 'stretch quickly'	ve <sup>33</sup> 'draw'	ve <sup>33</sup> vaw <sup>35</sup> 'draw quickly'
o:k <sup>35</sup> 'exit'	o:k <sup>35</sup> aw <sup>35</sup> 'exit quickly'	θak <sup>33</sup> 'wash'	θak <sup>33</sup> θaw <sup>35</sup> 'wash quickly'
pan <sup>35</sup> 'turn'	pan <sup>35</sup> paw <sup>35</sup> 'turn quickly'	θi <sup>55</sup> 'write'	θi <sup>55</sup> θaw <sup>35</sup> 'write quickly'
pi:n <sup>35</sup> 'change'	pi:n <sup>35</sup> paw <sup>35</sup> 'change quickly'	ɛa:t <sup>35</sup> 'wipe'	ɛa:t <sup>35</sup> ɛaw <sup>35</sup> 'wipe quickly'
pja:i <sup>55</sup> 'walk'	pja:i <sup>55</sup> paw <sup>35</sup> 'walk quickly'	ɛuk <sup>35</sup> 'tie'	ɛuk <sup>35</sup> ɛaw <sup>35</sup> 'tie quickly'
bin <sup>24</sup> 'fly'	bin <sup>24</sup> baw <sup>35</sup> 'fly quickly'	jaŋ <sup>42</sup> 'raise'	jaŋ <sup>42</sup> jaw <sup>35</sup> 'raise quickly'
tam <sup>55</sup> 'weave'	tam <sup>55</sup> taw <sup>35</sup> 'weave quickly'	ɣam <sup>55</sup> 'cut'	ɣam <sup>55</sup> ɣaw <sup>35</sup> 'cut quickly'
tik <sup>55</sup> 'kick'	tik <sup>55</sup> taw <sup>35</sup> 'kick quickly'	ɣiŋ <sup>42</sup> 'roll'	ɣiŋ <sup>42</sup> ɣaw <sup>35</sup> 'roll quickly'
dek <sup>35</sup> 'throw'	dek <sup>35</sup> daw <sup>35</sup> 'throw quickly'	ha:k <sup>33</sup> 'learn'	ha:k <sup>33</sup> haw <sup>35</sup> 'learn quickly'
kai <sup>42</sup> 'push'	kai <sup>42</sup> kaw <sup>35</sup> 'push quickly'	lum <sup>31</sup> 'forget'	lum <sup>31</sup> law <sup>35</sup> 'forget quickly'
ke <sup>35</sup> 'count'	ke <sup>35</sup> kaw <sup>35</sup> 'count quickly'	ma <sup>55</sup> 'grow'	ma <sup>55</sup> maw <sup>35</sup> 'grow quickly'
kʷa <sup>35</sup> 'pass'	kʷa <sup>35</sup> kaw <sup>35</sup> 'pass quickly'	niŋ <sup>24</sup> 'move'	niŋ <sup>24</sup> naw <sup>35</sup> 'move quickly'
kja <sup>24</sup> 'add'	kja <sup>24</sup> kaw <sup>35</sup> 'add quickly'	ŋip <sup>33</sup> 'sew'	ŋip <sup>33</sup> ŋaw <sup>35</sup> 'sew quickly'
fat <sup>55</sup> 'sprinkle'	fat <sup>55</sup> faw <sup>35</sup> 'sprinkle quickly'	ŋa:u <sup>31</sup> 'shake'	ŋa:u <sup>31</sup> ŋaw <sup>35</sup> 'shake quickly'

Table 2.7: Submorphemic epenthetic verb reduplication in Zhuang (I)

There is a longer and more expressive pattern of submorphemic reduplication in Zhuang. This construction expresses a sense of speed and vividness.

Verb	Verb~C-i <sup>55</sup> ~Verb~C-aw <sup>35</sup>
eu <sup>55</sup> 'break'	eu <sup>55</sup> i <sup>55</sup> eu <sup>55</sup> aw <sup>35</sup> 'break quickly'
pi:n <sup>35</sup> 'change'	pi:n <sup>35</sup> pi <sup>55</sup> pi:n <sup>35</sup> paw <sup>35</sup> 'change quickly'
tik <sup>55</sup> 'kick'	tik <sup>55</sup> ti <sup>55</sup> tik <sup>55</sup> taw <sup>35</sup> 'kick quickly'
ke <sup>35</sup> 'count'	ke <sup>35</sup> ki <sup>55</sup> ke <sup>35</sup> kaw <sup>35</sup> 'count quickly'
fat <sup>55</sup> 'sprinkle'	fat <sup>55</sup> fi <sup>55</sup> fat <sup>55</sup> faw <sup>35</sup> 'sprinkle quickly'
lum <sup>31</sup> 'forget'	lum <sup>31</sup> li <sup>55</sup> lum <sup>31</sup> law <sup>35</sup> 'forget quickly'
ŋa:u <sup>31</sup> 'shake'	ŋa:u <sup>31</sup> ŋi <sup>55</sup> ŋa:u <sup>31</sup> ŋaw <sup>35</sup> 'shake quickly'

Table 2.8: Submorphemic epenthetic verb reduplication in Zhuang (II)

Disyllabic adjectives (AB) are reduplicated in one of the two patterns, as AABB or as ABAB. However, no rule predicts the pattern of a disyllabic adjective, whereas native speakers are required to acquire the reduplication pattern in their childhood.

AABB		ABAB	
Zhuang	a:ŋ <sup>35</sup> a:ŋ <sup>31</sup> 'happy'	a:ŋ <sup>35</sup> a:ŋ <sup>35</sup> ja:ŋ <sup>31</sup> ja:ŋ <sup>31</sup>	tuuk <sup>33</sup> ɕaŋ <sup>31</sup> 'pitiful' tuuk <sup>33</sup> ɕaŋ <sup>31</sup> tuuk <sup>33</sup> ɕaŋ <sup>31</sup>
	ŋut <sup>55</sup> ŋeu <sup>55</sup> 'crooked'	ŋut <sup>55</sup> ŋut <sup>55</sup> ŋeu <sup>55</sup> ŋeu <sup>55</sup>	ho <sup>55</sup> θou <sup>33</sup> 'embarrassed' ho <sup>55</sup> θou <sup>33</sup> ho <sup>55</sup> θou <sup>33</sup>
	kum <sup>31</sup> ka:m <sup>31</sup> 'perfect'	kum <sup>31</sup> kum <sup>31</sup> ka:m <sup>31</sup> ka:m <sup>31</sup>	ja:k <sup>35</sup> jaw <sup>55</sup> 'beautiful' ja:k <sup>35</sup> jaw <sup>55</sup> ja:k <sup>35</sup> jaw <sup>55</sup>
	la:u <sup>42</sup> θat <sup>33</sup> 'honest'	la:u <sup>42</sup> la:u <sup>42</sup> θat <sup>33</sup> θat <sup>33</sup>	
	vu:n <sup>24</sup> hei <sup>55</sup> 'glad'	vu:n <sup>24</sup> vu:n <sup>24</sup> hei <sup>55</sup> hei <sup>55</sup>	
Kam	wo <sup>35</sup> jep <sup>13</sup> 'clean'	wo <sup>35</sup> wo <sup>35</sup> jep <sup>13</sup> jep <sup>13</sup>	sən <sup>55</sup> kʰu <sup>13</sup> 'tired' sən <sup>55</sup> kʰu <sup>13</sup> sən <sup>55</sup> kʰu <sup>13</sup>
	ken <sup>31</sup> kət <sup>55</sup> 'tidy'	ken <sup>31</sup> ken <sup>31</sup> kət <sup>55</sup> kət <sup>55</sup>	lai <sup>55</sup> pəi <sup>31</sup> 'nice (for girl)' lai <sup>55</sup> pəi <sup>31</sup> lai <sup>55</sup> pəi <sup>31</sup>
	ɕon <sup>11</sup> ɕu <sup>33</sup> 'perfect'	ɕon <sup>11</sup> ɕon <sup>11</sup> ɕu <sup>33</sup> ɕu <sup>33</sup>	ho <sup>11</sup> ɕi <sup>55</sup> 'friendly' ho <sup>11</sup> ɕi <sup>55</sup> ho <sup>11</sup> ɕi <sup>55</sup>
	tʰiŋ <sup>35</sup> tʰu <sup>13</sup> 'clear'	tʰiŋ <sup>35</sup> tʰiŋ <sup>35</sup> tʰu <sup>13</sup> tʰu <sup>13</sup>	it <sup>323</sup> sai <sup>323</sup> 'bitter in heart' it <sup>323</sup> sai <sup>323</sup> it <sup>323</sup> sai <sup>323</sup>
	tɕeŋ <sup>55</sup> jai <sup>323</sup> 'longterm'	tɕeŋ <sup>55</sup> tɕeŋ <sup>55</sup> jai <sup>323</sup> jai <sup>323</sup>	

Table 2.9: Reduplication of disyllabic adjectives

Tai-Kadai languages allow reduplicated ideophones to be appended to nouns, adjectives, and verbs. The resulting expressions function as adjectival or verbal predicates. In general, the ideophones carry no particular meaning but convey sound-symbolic senses.

### Zhuang

pwn <sup>24</sup>	'hair'	pwn <sup>24</sup> ŋam <sup>24</sup> ŋam <sup>24</sup>	'hairy'
fon <sup>44</sup>	'dust'	fon <sup>44</sup> fan <sup>24</sup> fan <sup>24</sup>	'dusty'
lu:t <sup>21</sup>	'blood'	lu:t <sup>21</sup> jeŋ <sup>24</sup> jeŋ <sup>24</sup>	'bloody'
ŋan <sup>42</sup>	'silver'	ŋan <sup>42</sup> ja:n <sup>24</sup> ja:n <sup>24</sup>	'shiny'
ŋin <sup>42</sup>	'sinew'	ŋin <sup>42</sup> ŋa:n <sup>42</sup> ŋa:n <sup>42</sup>	'sinewy'
ɣam <sup>33</sup>	'water'	ɣam <sup>33</sup> θa:k <sup>55</sup> θa:k <sup>55</sup>	'watery'
ɣin <sup>24</sup>	'stone'	ɣin <sup>24</sup> ɣan <sup>33</sup> ɣan <sup>33</sup>	'stony'
ɣum <sup>24</sup>	'weed'	ɣum <sup>24</sup> ɣa:m <sup>24</sup> ɣa:m <sup>24</sup>	'weedy'
on <sup>24</sup>	'thorn'	on <sup>24</sup> ot <sup>55</sup> ot <sup>55</sup>	'thorny'
jou <sup>42</sup>	'oil'	jou <sup>42</sup> jup <sup>21</sup> jup <sup>21</sup>	'oily'

Table 2.10: Nominal ideophones in Zhuang

<i>Kam</i>			
ta <sup>55</sup>	'eye'	ta <sup>55</sup> jap <sup>11</sup> jap <sup>11</sup>	'blinking'
kwen <sup>11</sup>	'smoke'	kwen <sup>11</sup> ui <sup>323</sup> ui <sup>323</sup>	'smoky'
pui <sup>55</sup>	'fire'	pui <sup>55</sup> həp <sup>31</sup> həp <sup>31</sup>	'fiery'
lap <sup>323</sup>	'lightening'	lap <sup>323</sup> jap <sup>31</sup> jap <sup>31</sup>	'flashing'
pa <sup>53</sup>	'leaf'	pa <sup>53</sup> nəm <sup>33</sup> nəm <sup>33</sup>	'leafy'
nəm <sup>31</sup>	'water'	nəm <sup>31</sup> ŋwan <sup>31</sup> ŋwan <sup>31</sup>	'turbulent'
lan <sup>33</sup>	'wave'	lan <sup>33</sup> pəi <sup>55</sup> pəi <sup>55</sup>	'wavy'
p <sup>h</sup> at <sup>13</sup>	'blood'	p <sup>h</sup> at <sup>13</sup> jin <sup>323</sup> jin <sup>323</sup>	'bloody'
puŋ <sup>33</sup>	'dust'	puŋ <sup>33</sup> p <sup>h</sup> əi <sup>31</sup> p <sup>h</sup> əi <sup>31</sup>	'dusty'
wa <sup>33</sup>	'flower'	wa <sup>33</sup> nəm <sup>33</sup> nəm <sup>33</sup>	'flowery'

Table 2.11: Nominal ideophones in Kam

<i>Verbal Ideophones</i>				
Zhuang	ai <sup>24</sup>	'cough'	ai <sup>24</sup> ep <sup>33</sup> ep <sup>33</sup>	'cough lightly and slowly'
	pan <sup>31</sup>	'grind'	pan <sup>31</sup> kia:t <sup>35</sup> kia:t <sup>35</sup>	'grind loudly'
	pat <sup>55</sup>	'sweep'	pat <sup>55</sup> θa <sup>31</sup> θa <sup>31</sup>	'sweep loudly'
	pu:t <sup>35</sup>	'run'	pu:t <sup>35</sup> ɣop <sup>33</sup> ɣop <sup>33</sup>	'run with strength'
	tai <sup>55</sup>	'cry'	tai <sup>55</sup> fu:t <sup>55</sup> fu:t <sup>55</sup>	'cry with sobbing'
	tiu <sup>44</sup>	'jump'	tiu <sup>44</sup> pum <sup>31</sup> pum <sup>31</sup>	'jump and leap'
	ɣiu <sup>24</sup>	'laugh'	ɣiu <sup>24</sup> ŋum <sup>55</sup> ŋum <sup>55</sup>	'laugh gently'
Kam	pja <sup>55</sup>	'weave'	pja <sup>55</sup> ɕet <sup>13</sup> ɕet <sup>13</sup>	'weave very quickly'
	piek <sup>55</sup>	'whip'	piek <sup>55</sup> set <sup>323</sup> set <sup>323</sup>	'whip repeatedly'
	it <sup>31</sup>	'bite'	it <sup>31</sup> ŋa <sup>33</sup> ŋa <sup>33</sup>	'chew to the bone'
	wum <sup>31</sup>	'drink'	wum <sup>31</sup> ot <sup>31</sup> ot <sup>31</sup>	'drink noisily'
	pen <sup>53</sup>	'dress up'	pen <sup>53</sup> koŋ <sup>11</sup> koŋ <sup>11</sup>	'dress stunningly'
	pən <sup>323</sup>	'fly'	pən <sup>323</sup> hem <sup>31</sup> hem <sup>31</sup>	'fly in swarms'
	tɕam <sup>13</sup>	'walk'	tɕam <sup>13</sup> tɕhet <sup>35</sup> tɕhet <sup>35</sup>	'walking and hopping'

Table 2.12: Reduplication of verbal ideophones

<i>Adjectival Ideophones</i>				
Zhuang	a:ŋ <sup>35</sup>	'joyful'	a:ŋ <sup>35</sup> jek <sup>35</sup> jek <sup>35</sup>	'childish and overjoyed'
	pak <sup>33</sup>	'tired'	pak <sup>33</sup> fo <sup>31</sup> fo <sup>31</sup>	'very tired'
	pi <sup>31</sup>	'fat'	pi <sup>31</sup> po:t <sup>33</sup> po:t <sup>33</sup>	'fat and round'
	ɛo <sup>31</sup>	'young'	ɛo <sup>31</sup> ɛwt <sup>33</sup> ɛwt <sup>33</sup>	'young and tender'
	tum <sup>31</sup>	'wet'	tum <sup>31</sup> ta:m <sup>31</sup> ta:m <sup>31</sup>	'very wet'
	feu <sup>31</sup>	'shallow'	feu <sup>31</sup> fut <sup>33</sup> fut <sup>33</sup>	'very shallow'
	kwa:ŋ <sup>35</sup>	'wide'	kwa:ŋ <sup>35</sup> mia:ŋ <sup>24</sup> mia:ŋ <sup>24</sup>	'wide and vast'
Kam	an <sup>11</sup>	'messy'	an <sup>11</sup> iu <sup>31</sup> iu <sup>31</sup>	'completely messy'
	ɛt <sup>55</sup>	'dense'	ɛt <sup>55</sup> ɛu <sup>55</sup> ɛu <sup>55</sup>	'overcrowded'
	gwa <sup>323</sup>	'hard'	gwa <sup>323</sup> təŋ <sup>323</sup> təŋ <sup>323</sup>	'extremely hard'
	ma <sup>323</sup>	'soft'	ma <sup>323</sup> məm <sup>33</sup> məm <sup>33</sup>	'mushy'
	p <sup>h</sup> aŋ <sup>35</sup>	'tall'	p <sup>h</sup> aŋ <sup>35</sup> ŋaŋ <sup>53</sup> ŋaŋ <sup>53</sup>	'tall and upright'
	sək <sup>55</sup>	'steep'	sək <sup>55</sup> sem <sup>55</sup> sem <sup>55</sup>	'very steep'
	pu <sup>55</sup>	'swollen'	pu <sup>55</sup> pəp <sup>55</sup> pəp <sup>55</sup>	'tautly swollen'

Table 2.13: Reduplication of adjectival ideophones

### C. Personal Pronouns in Tai-Kadai

In Tai-Kadai languages, personal pronoun systems fall into five form types. The majority of Tai-Kadai languages distinguish between inclusive/exclusive<sup>32</sup> first person plural pronouns referring to a group with or without the addressee. The *Kam* language is of *type I* with seven primitive (different and underived) pronouns; *Hlai* and *Zhuang* belong to *type II* with six primitive pronouns and one plural form which is an affixed singular form. Similarly, *Gelao* and *Nung* are *type III* languages with six different forms, one of which denotes two different persons. In *Buyang* and *Be*, two *type IV* languages and three primitive singular pronouns exist, with their plural counterparts being affixed singular forms. Finally, *Thai* is a *type V* language:

The pronoun system in Thai is typologically rare and imbibes both syncretic and differential features. The system is syncretic in that it contains pronouns that

<sup>32</sup> See Siewierska (2004: 100-111).

denote different persons.<sup>33</sup> However, it is also differential in that it uses a wide range of pronouns for each person: 27 first-person pronouns, 22 second-person pronouns, and eight third-person pronouns. The gender of the referent and the level of formality are the features that distinguish these forms. Some of these pronouns are rarely used and therefore, antiquated.

	<i>Type I</i> (7 primitive)	<i>Type II</i> (6 primitive, 1 derived)	<i>Type III</i> (6 primitive, 1 ambiguous)	<i>Type IV</i> (3 primitive, 4 derived)	<i>Type V</i> (special)			
	<i>Kam</i> <sup>34</sup>	<i>Hlai</i> <sup>35</sup>	<i>Zhuang</i> <sup>36</sup>	<i>Gelao</i> <sup>37</sup>	<i>Nung</i> <sup>38</sup>	<i>Buyang</i> <sup>39</sup>	<i>Be</i> <sup>40</sup>	<i>Thai</i> <sup>41</sup>
1.SG	jau <sup>11</sup>	de <sup>11</sup>	kau <sup>24</sup>	ɣi <sup>35</sup>	cau <sup>35</sup>	ku <sup>322</sup>	hau <sup>55</sup>	təhan <sup>55</sup>
2.SG	ŋa <sup>11</sup>	meu <sup>53</sup>	mɯŋ <sup>31</sup>	mu <sup>35</sup>	mɯhŋ <sup>33</sup>	mə <sup>31</sup>	mə <sup>55</sup>	na:j <sup>33</sup>
3.SG	mau <sup>33</sup>	na <sup>53</sup>	te <sup>24</sup>	huŋ <sup>42</sup>	mɯhn <sup>33</sup>	kə <sup>55</sup>	kə <sup>55</sup>	khaw <sup>55</sup>
1.PL.INCL	dau <sup>55</sup>	fa <sup>53</sup>	ɣau <sup>31</sup>	tau <sup>35</sup>	hau <sup>33</sup>	hɔ <sup>45</sup> tu <sup>322</sup>	ɔu <sup>55</sup> lo <sup>11</sup>	raw <sup>33</sup>
1.PL.EXCL	təiu <sup>55</sup>	ga <sup>53</sup>	tau <sup>31</sup>	tau <sup>35</sup>	phu <sup>13</sup>	hɔ <sup>45</sup> ku <sup>322</sup>	hau <sup>55</sup> lo <sup>11</sup>	raw <sup>33</sup>
2.PL	əau <sup>35</sup>	meu <sup>53</sup> ta <sup>53</sup>	θau <sup>31</sup>	tsau <sup>35</sup>	slu <sup>35</sup>	hɔ <sup>45</sup> mə <sup>31</sup>	mə <sup>55</sup> lo <sup>11</sup>	raw <sup>33</sup>
3.PL	kɛ: <sup>35</sup>	khun <sup>53</sup>	təŋ <sup>35</sup> te <sup>24</sup>	tse <sup>35</sup>	mɯhn <sup>33</sup>	hɔ <sup>45</sup> kə <sup>55</sup>	kə <sup>55</sup> lo <sup>11</sup>	khaw <sup>55</sup>

Table 2.14: Personal pronouns in Tai-Kadai Languages

<sup>33</sup> The pronouns *raw* and *tua* are used for first and second person; *khaw* is used for first and third person; *thân*, *khun*, *thəə*, *naay* and *kɛɛ* are employed for second and third person.

<sup>34</sup> The Kam forms originate from the southern dialect and were collected by Matthias Gerner in 1999.

<sup>35</sup> The Hlai pronouns are quoted from Burusphat et al. (2003)'s dictionary.

<sup>36</sup> The Zhuang data are from Standard Zhuang (in Guǎngxī 广西, Nánning 南宁, Wǔmíng 武鸣) and were collected by Matthias Gerner during 1996-2003 and compared with Qin (2004)'s lexicological data.

<sup>37</sup> Field work data were collected by Matthias Gerner in 1998.

<sup>38</sup> The pronouns are quoted from the *Nung Grammar* written by Janice Saul and Nancy Freiberger Wilson (1980:20).

<sup>39</sup> The Buyang data originate from the grammar *The Buyang Language of South China* written by Li and Luo (2010: 23).

<sup>40</sup> The Be (临高) language is spoken on Hǎinán 海南 island. The pronouns were collected by Matthias Gerner in 1997.

<sup>41</sup> Data are quoted from Iwasaki and Ingkaphirom's Thai grammar (2005: 49-52).

Notes on pronouns:

*Buyang:*

- **1.PL.Inclusive:** A variant form for the inclusive first-person plural pronoun is *tu*<sup>322</sup> (without the prefix *hɔ*<sup>45</sup>);
- **1.PL.Exclusive:** Variant forms for the exclusive first-person plural pronoun are *hɔ*<sup>45</sup>*du*<sup>33</sup> or simply *du*<sup>33</sup>.

*Thai:*

- **1.SG:** The form *chán* is the most common first person pronoun used by both men and women at the mid-level of formality. Seven more pronouns are in use, but depend on the gender of the speaker and the extent of formality. The form *kha*<sup>42</sup>*pʰa*<sup>33</sup>*təaw*<sup>42</sup> is rare, used by both men and women in formal writing; *kra*<sup>33</sup>*pʰom*<sup>24</sup> is used exclusively by a male speaker when addressing high-ranking non-royalty or in other very formal situations; *pʰom*<sup>24</sup> is the most general polite form used by male speakers when speaking to superiors and to peers in a formal setting; the pronoun *di*<sup>33</sup>*təʰan*<sup>55</sup> is the female counterpart of *pʰom*<sup>24</sup>; the pronoun *ku*<sup>33</sup> is used by both men and women in informal contexts; finally, the main use of *kʰaw*<sup>55</sup> is that of a third person pronoun, but can also be used as first person pronoun by female speakers in informal settings. For an elucidation of these pronouns, see Iwasaki and Ingkaphirom (2005: 50);
- **2.SG:** The form *na*<sup>33</sup> is the unmarked second person singular pronoun with a mid-level of formality, used by men and women alike. An additional six pronouns are used to address someone, albeit with more specialized meanings: *ʰan*<sup>42</sup> is employed as a second person pronoun to show respect towards someone of higher rank; *kʰun*<sup>33</sup> is the most general polite term used by men and women to address peers and superiors; the pronoun *tʰə*<sup>33</sup> is derived from a third person pronoun and is used to address men and women in mid-formality contexts; the pronoun *raw*<sup>33</sup> is a first person pronoun but is also employed as second person pronoun in moderately formal situations (singular and plural); the form *tua*<sup>33</sup> is an affectionate term used by women, particularly when conversing with a female friend; *mɯŋ*<sup>33</sup> is the most informal second person pronoun used by men in informal situations. The description presented is adapted from Iwasaki and Ingkaphirom (2005: 51);
- **3.SG / 3.PL:** In addition to the unmarked third person pronoun *kʰaw*<sup>55</sup>, there are four specialized pronouns: *ʰan*<sup>42</sup> is used to speak about highly respected third persons; *tʰə*<sup>33</sup> refers to women in an elegant manner; *kɛ*<sup>33</sup> is employed

by some speakers for teachers and other respected people, but can also be used for inferior people such as servants; *man*<sup>33</sup> is the only pronoun that can be used for non-human and inanimate referents (see Iwasaki and Ingkaphirom 2005: 52);

- **1.PL / 2.PL:** Finally, the pronoun *raw*<sup>33</sup> can be used as inclusive/exclusive first-person plural pronoun and also as second person plural pronoun.

#### D. Classifiers in Tai-Kadai

Tai-Kadai languages use between 30 and 70 nominal classifiers, most of which are grammaticalized nouns. The classifiers serve four major grammatical functions in the noun phrase and are obligatory in count expressions. Bare classifiers function as indefinite articles. In conjunction with demonstrative pronouns, classifiers form deictic and anaphoric noun phrases. Finally, they are required in nominalized verb phrases.

<i>Functions</i>	<i>Explanation</i>	<i>Structure</i>
Counting	Classifier is required with numerals	NUM+CL+N
Indefiniteness	Classifier functions as an indefinite article	CL+N
Deixis & anaphora	Classifier co-occurs with demonstrative pronouns	CL+N+DEM
Nominalization	Classifier co-occurs with verb phrases	CL+N+VP+DEM

*Table 2.15: Functions of classifiers*

We surveyed eight Tai-Kadai languages, each representing one branch of the family.

Classifiers	<i>Kam</i> <sup>42</sup>	<i>Zhuang</i> <sup>43</sup>	<i>Nung</i> <sup>44</sup>	<i>Thai</i> <sup>45</sup>	<i>Be</i> <sup>46</sup>	<i>Gelao</i> <sup>47</sup>	<i>Buyang</i> <sup>48</sup>	<i>Hlai</i> <sup>49</sup>
Human	muŋ <sup>31</sup>	pou <sup>33</sup>	o:ŋ <sup>35</sup>	kʰon <sup>33</sup>	na <sup>33</sup>	pu <sup>42</sup>	kɔn <sup>33</sup>	lan <sup>53</sup>
Animate	tu <sup>11</sup>	tu <sup>24</sup>	tu <sup>35</sup>	tua <sup>33</sup>	hu <sup>55</sup>	tu <sup>31</sup>	dɛ <sup>322</sup> /ɔa:i <sup>33</sup>	lan <sup>53</sup>
Member of pair	maŋ <sup>53</sup>	mbi:ŋ <sup>55</sup>		kʰa:ŋ <sup>42</sup>			tʰɛ <sup>33</sup>	fe:ŋ <sup>53</sup>
Lengthy entities	teiu <sup>11</sup>	ti:u <sup>11</sup>	teu <sup>55</sup>	sen <sup>42</sup>	hiu <sup>55</sup>	teu <sup>31</sup>	kat <sup>55</sup> /ɔɛ <sup>31</sup>	kei <sup>53</sup> /tsew <sup>11</sup>
Flat entities	paŋ <sup>33</sup>	bau <sup>24</sup>		pʰɛn <sup>11</sup>	vɔn <sup>11</sup>	bai <sup>33</sup>	bɛŋ <sup>31</sup>	be:k <sup>55</sup> /van <sup>11</sup>
Granulates	nat <sup>55</sup>	nat <sup>21</sup>	ma:t <sup>33</sup> /moi <sup>31</sup>	met <sup>55</sup>	mɔ <sup>55</sup>	na <sup>11</sup>		hom <sup>53</sup>
Round entities	nɛn <sup>55</sup>	ʔan <sup>24</sup>	a:n <sup>35</sup>	lu:k <sup>42</sup>	xɔt <sup>55</sup>	kep <sup>35</sup>	pɔ <sup>33</sup>	ke:n <sup>55</sup>
Tool with handle	pak <sup>323</sup>	fa:k <sup>21</sup>		da:m <sup>42</sup>	tsua <sup>55</sup>	va <sup>11</sup>		pʰi:n <sup>55</sup> /ha <sup>55</sup>
Clothes	mɛi <sup>31</sup>	me <sup>21</sup> /ke:u <sup>24</sup>		tua <sup>33</sup>				

Table 2.16: *Important classifiers in Tai-Kadai*

In the remainder of this subsection, we report on the Northern Kam classifiers. In most isolating languages of East Asia (including Tai-Kadai), the classifier consists of one unique form. In the Northern dialect of Kam,<sup>50</sup> nominal

<sup>42</sup> The Kam data originate from the standard southern dialect and are the fieldwork of Matthias Gerner collected during 1996-2003.

<sup>43</sup> The Zhuang data originate from the standard Yōngbǐ 邕北 dialect and were collected by Matthias Gerner during 1996-1999. They are congruent with data published by Qin (2004) and Luó (2005).

<sup>44</sup> See Saul and Freiberger Wilson (1980)'s *Nung Grammar*. In addition to the more specialized human, animate, and inanimate classifiers listed below: there is the classifier *tɛa*<sup>35</sup> with a broad coverage that can be used with human, animate, and inanimate entities. Both classifiers *moi*<sup>31</sup> and *ma:t*<sup>33</sup> can be used for granulated entities, but each categorizes different nouns.

<sup>45</sup> The Thai data are quoted from Iwasaki and Ingkaphirom (2005: 75-78)'s grammar. The honorific human classifier used for royalties and monks is oŋ<sup>33</sup> (which means 'body').

<sup>46</sup> The Be 临高 data are from the fieldwork of Matthias Gerner collected during 1996-1998.

<sup>47</sup> The Gelao data are from the fieldwork of Matthias Gerner collected during 1996-1998.

<sup>48</sup> See Li and Luo (2010: 27-28). The animate and general classifier is dɛ<sup>322</sup> for the numeral 'one', and ɔa:i<sup>33</sup> for numerals greater than 'one'. The two classifiers for lengthy entities (*kat*<sup>55</sup> and *ɔɛ*<sup>31</sup>) are compatible with different groups of nouns, as are the two classifiers for flat entities (*bɛŋ*<sup>31</sup> and *pɛn*<sup>45</sup>).

<sup>49</sup> The Hlai data have been quoted from Burusphat et al. (2003)'s Hlai dictionary.

<sup>50</sup> The Northern dialect of Kam is spoken in Jǐnpíng 锦屏 and Tiānzhù 天柱 counties of Guizhōu 贵州 province.

classifiers are inflected for singular and plural.<sup>51</sup> This contrast between singular and plural is only attested in Northern Kam. In the Southern dialect of Kam spoken in Róngjiāng 榕江 and Sānjiāng 三江, counties classifiers are not inflected.

<i>Northern Kam</i>								
(5)	a.	i <sup>45</sup>	<b>jiu</b> <sup>22</sup>	ŋa <sup>45</sup>	b.	ham <sup>11</sup>	<b>tɕiu</b> <sup>22</sup>	ŋa <sup>45</sup>
		NUM.1	CL.SG	river		NUM.3	CL.PL	river
		'one river'				'three rivers'		
<i>Southern Kam (Róngjiāng)</i>								
(6)	a.	i <sup>55</sup>	<b>tɕiu</b> <sup>11</sup>	ŋa <sup>55</sup>	b.	sam <sup>33</sup>	<b>tɕiu</b> <sup>11</sup>	ŋa <sup>55</sup>
		NUM.1	CL	river		NUM.3	CL	river
		'one river'				'three rivers'		

Phonologically, the initial of the Northern Kam singular classifier is almost always realized as glide ([w], [j]) or as voiced fricative ([z], [ʎ]), whereas the plural classifier usually commences with a stop or a nasal.

<i>Derivation</i>	<i>Class meaning</i>	<i>Northern</i>		<i>Róngjiāng</i>	<i>Sānjiāng</i>
		CL.SG	CL.PL	CL	CL
[p] → [w]	Entities with handle	wa <sup>33</sup>	pa <sup>33</sup>	pak <sup>323</sup>	pak <sup>323</sup>
	Human	wəu <sup>45</sup>	pəu <sup>45</sup>	---	---
	'bridge'	wu <sup>44</sup>	pu <sup>44</sup>	---	pu <sup>33</sup>
	'bed'	wu <sup>24</sup>	pu <sup>24</sup>	---	p <sup>h</sup> u <sup>453</sup>
	'book'	wən <sup>33</sup>	pən <sup>33</sup>	pən <sup>33</sup>	pən <sup>33</sup>
	Several versatile entities	wen <sup>11</sup>	pen <sup>11</sup>	---	---
[m] → [w]	Dual body parts	waŋ <sup>24</sup>	maŋ <sup>24</sup>	maŋ <sup>53</sup>	maŋ <sup>53</sup>
	Clothes	wəi <sup>31</sup>	məi <sup>31</sup>	məi <sup>31</sup>	məi <sup>31</sup>
[tɕ] → [w]	2-Dim entities	wen <sup>11</sup>	tɕen <sup>11</sup>	---	---
[k <sup>w</sup> ] → [w]	'piece'	wai <sup>24</sup>	k <sup>w</sup> ai <sup>24</sup>	---	k <sup>hw</sup> ai <sup>453</sup>

<sup>51</sup> Matthias Gerner (2006) reported first on this phenomenon in a study published in the *Journal of Chinese Linguistics* (34(2), 237-305, especially pp. 243-247).

Derivation	Class meaning	Northern		Róngjiāng	Sānjiāng
		CL.SG	CL.PL	CL	CL
[t] → [z]	'lump, ball'	ʒa <sup>22</sup>	ta <sup>22</sup>	---	ta <sup>11</sup>
	'piece, lump'	ʒon <sup>22</sup>	ton <sup>22</sup>	ton <sup>11</sup>	ton <sup>11</sup>
	Animate entities	ʒo <sup>22</sup>	to <sup>22</sup>	tu <sup>11</sup>	tu <sup>11</sup>
	Several versatile entities	ʒoŋ <sup>13</sup>	toŋ <sup>13</sup>	---	---
	Several versatile entities	ʒi <sup>45</sup>	ti <sup>45</sup>	---	---
[n] → [z]	3-Dim entities	ʒən <sup>11</sup>	nən <sup>45</sup>	nen <sup>55</sup>	nen <sup>55</sup>
	Several versatile entities	ʒa <sup>13</sup>	naŋ <sup>13</sup>	---	---
[t] → [n]	Several versatile entities	na <sup>31</sup>	ta <sup>31</sup>	---	---
[tɕ] → [j]	1-Dim entities	jiu <sup>22</sup>	tɕiu <sup>22</sup>	tɕiu <sup>11</sup>	tɕiu <sup>11</sup>
	Drop-shaped entities	jit <sup>33</sup>	tɕit <sup>33</sup>	tɕik <sup>323</sup>	tɕik <sup>323</sup>
	Several versatile entities	jaŋ <sup>22</sup>	tɕaŋ <sup>22</sup>	---	---
[ɕ] → [j]	Sharp, slender objects	jaŋ <sup>45</sup>	ɕaŋ <sup>45</sup>	ɕaŋ <sup>53</sup>	tɕaŋ <sup>53</sup>
	Erected/layered entities	joŋ <sup>22</sup>	ɕoŋ <sup>22</sup>	ɕoŋ <sup>11</sup>	tɕoŋ <sup>11</sup>
[k] → [ɣ]	Several versatile entities	ɣaŋ <sup>44</sup>	kaŋ <sup>44</sup>	---	---
[ʔ] → [ɣ]	Vehicles & machines	ɣa <sup>55</sup>	ʔa <sup>55</sup>	ʔa <sup>53</sup>	ka <sup>53</sup>
No change	1-Dim section	toŋ <sup>53</sup>	toŋ <sup>53</sup>	toŋ <sup>55</sup>	toŋ <sup>55</sup>
	Grain-shaped entities	na <sup>31</sup>	na <sup>31</sup>	nat <sup>55</sup>	nat <sup>55</sup>
	'letter'	woŋ <sup>11</sup>	woŋ <sup>11</sup>	foŋ <sup>33</sup>	hoŋ <sup>55</sup>
	Several versatile entities	ta <sup>31</sup>	ta <sup>31</sup>	---	---

Table 2.17: Singular/Plural classifiers in Northern Kam

The emergence of the singular versus plural distinction is owed to a process of *progressive contact assimilation* involving the numeral *i*<sup>45</sup> 'one'. Many Southwestern Chinese minority languages borrowed the numeral *\*jit* 'one' from Old Chinese.<sup>52</sup> Upon integration with the language, the numeral underwent a process of lenition and subsequently, loss of the final consonant. It was in the form *\*i* 'one' when it commenced its interaction with the set of Northern Kam classifiers. In most isolating languages of the region, the numeral 'one', when

<sup>52</sup> This point was made by Dempsey (1995) and Ratliff (2007).

followed by a classifier, conveys the meaning of an indefinite article and occurs frequently in this constellation. Since the frequency of occurrence is correlated with the tempo of speech,<sup>53</sup> the *numeral-classifier* construction was produced more quickly for ‘one’ as compared to other numerals. In rapid pronunciation, the ‘one’ + classifier compound was perceived to be a short period of voicing, which had the effect that the classifier initial was assimilated as a glide or fricative in order to match the phonation type of the numeral \**i* ‘one.’

<i>Stop</i> → <i>Glide</i>	<i>Stop</i> → <i>Fricative</i>
*i+pa <sup>33</sup> → i <sup>45</sup> +wa <sup>33</sup>	*i+ta <sup>22</sup> → i <sup>45</sup> +za <sup>22</sup>
*i+tɛn <sup>11</sup> → i <sup>45</sup> +wɛn <sup>11</sup>	*i+kaŋ <sup>44</sup> → i <sup>45</sup> +ɣaŋ <sup>44</sup>
*i+tɕiu <sup>22</sup> → i <sup>45</sup> +jiu <sup>22</sup>	*i+ʔa <sup>55</sup> → i <sup>45</sup> +ɣa <sup>55</sup>
*i+k <sup>w</sup> ai <sup>24</sup> → i <sup>45</sup> +wai <sup>24</sup>	
<i>Nasal/Fricative</i> → <i>Glide</i>	<i>Nasal</i> → <i>Glide</i>
*i+ɛaŋ <sup>45</sup> → i <sup>45</sup> +jaŋ <sup>45</sup>	*i+nən <sup>45</sup> → i <sup>45</sup> +zən <sup>11</sup>
*i+maŋ <sup>55</sup> → i <sup>45</sup> +waŋ <sup>24</sup>	

Table 2.18: Progressive assimilation of singular/plural classifiers

Consequently, the classifier was misheard and reinterpreted by the language learner as a singular classifier. Through a process of analogy with other numerals, the numeral ‘one’ was reintroduced into the language in focused contexts. The forms to have emerged through assimilation with \**i* ‘one’ separated historically from those occurrences in which they collocated with other numerals. They were then re-analyzed as singular classifiers, whereas the remaining forms were reinterpreted as plural classifiers. The existing state of the Northern Kam classifiers is stuck at this stage. The singular-plural distinction has not yet reached (through analogy) other syntactic environments in which no numeral is involved, such as demonstrative pronoun constructions or indefinite constructions. Demonstrative pronouns are associated with plural classifiers, i.e. with a version of the classifier that has not undergone morphological reanalysis, and therefore imply a singular reading, see (7). However, a singular plural distinction has emerged in structures wherein the classifier co-occurs with bare nouns, see (8).

<sup>53</sup> See the studies of Bybee and Scheibman (1999) and Bybee (2002) on this point.



<i>Verb</i>	<i>Noun</i>	<i>Metaphorical verb-object compounds</i>
pai <sup>53</sup> 'worship'	pu <sup>31</sup> nəi <sup>31</sup> 'parents'	pai <sup>53</sup> pu <sup>31</sup> nəi <sup>31</sup> 'acknowledge adoptive parents'
lɪ <sup>323</sup> 'get'	sai <sup>323</sup> 'intestines'	lɪ <sup>323</sup> sai <sup>323</sup> 'acquire knowledge'
	dam <sup>323</sup> 'gall'	lɪ <sup>323</sup> dam <sup>323</sup> 'become bold'
tak <sup>55</sup> 'break'	əp <sup>55</sup> 'mouth'	tak <sup>55</sup> əp <sup>55</sup> 'reduce to silence'
tu <sup>53</sup> 'break'	mɪ <sup>323</sup> 'milk'	tu <sup>53</sup> mɪ <sup>323</sup> 'exhaust milk' (of mothers)
soŋ <sup>53</sup> 'put'	ta <sup>55</sup> 'eye'	soŋ <sup>53</sup> ta <sup>55</sup> 'watch attentively'
we <sup>31</sup> 'make'	na <sup>323</sup> 'face'	we <sup>31</sup> na <sup>323</sup> 'be polite'
au <sup>55</sup> 'fetch'	mai <sup>31</sup> 'wife'	au <sup>55</sup> mai <sup>31</sup> 'get married to wife'
	kwan <sup>55</sup> 'name'	au <sup>55</sup> kwan <sup>55</sup> 'give name'
	kwen <sup>55</sup> 'spirit'	au <sup>55</sup> kwen <sup>55</sup> 'cast out demon'
liak <sup>11</sup> 'steal'	lɪ <sup>31</sup> 'word'	liak <sup>11</sup> lɪ <sup>31</sup> 'eavesdrop'
tɔi <sup>55</sup> 'eat'	e <sup>55</sup> 'property'	tɔi <sup>55</sup> e <sup>55</sup> 'inherit property'
	wak <sup>31</sup> 'public'	tɔi <sup>55</sup> wak <sup>31</sup> 'depend on public help'

Table 2.19: Metaphorical verb-object compounds in Kam

In *Kam*, pairs of body terms (AB) might be 'incorporated' into verbs (V) in accordance with the structure VAVB. These expressions exhibit co-occurrence restrictions in terms of the verb and body terms, and often entail metaphorical meaning. No equivalent constructions are known in other Tai-Kadai languages.

<i>Body parts</i>	<i>Predicate</i>	<i>Body part construction</i>
kao <sup>323</sup> kha <sup>35</sup>	pen <sup>53</sup> 'throw'	pen <sup>53</sup> kao <sup>323</sup> pen <sup>53</sup> kha <sup>35</sup> 'display pride'
'head' 'ear'	ɬem <sup>323</sup> 'bend'	ɬem <sup>323</sup> kao <sup>323</sup> ɬem <sup>323</sup> kha <sup>35</sup> 'with lowered head'
	miet <sup>55</sup> 'twist'	miet <sup>55</sup> kao <sup>323</sup> miet <sup>55</sup> kha <sup>35</sup> 'disobedient'
	pak <sup>31</sup> 'white'	pak <sup>31</sup> kao <sup>323</sup> pak <sup>31</sup> kha <sup>35</sup> 'with grey hair'
	pan <sup>11</sup> 'slant'	pan <sup>11</sup> kao <sup>323</sup> pan <sup>11</sup> kha <sup>35</sup> 'insensible, naughty'
	puk <sup>31</sup> 'clumsy'	puk <sup>31</sup> kao <sup>323</sup> puk <sup>31</sup> kha <sup>35</sup> 'clumsy'
	pʰaŋ <sup>35</sup> 'tall'	pʰaŋ <sup>35</sup> kao <sup>323</sup> pʰaŋ <sup>35</sup> kha <sup>35</sup> 'of big stature'
na <sup>323</sup> neŋ <sup>55</sup>	peŋ <sup>33</sup> 'swollen'	peŋ <sup>33</sup> na <sup>323</sup> peŋ <sup>33</sup> neŋ <sup>55</sup> 'have swollen face'
'face' 'nose'	pui <sup>11</sup> 'fat'	pui <sup>11</sup> na <sup>323</sup> pui <sup>11</sup> neŋ <sup>55</sup> 'have fat and swollen face'
	kʰwaŋ <sup>13</sup> 'wide'	kʰwaŋ <sup>13</sup> na <sup>323</sup> kʰwaŋ <sup>13</sup> neŋ <sup>55</sup> 'have wide face'
	mut <sup>31</sup> 'bearded'	mut <sup>31</sup> na <sup>323</sup> mut <sup>31</sup> neŋ <sup>55</sup> 'fully bearded'

<i>Body parts</i>		<i>Predicate</i>	<i>Body part construction</i>				
ta <sup>55</sup> 'eye'	neŋ <sup>55</sup> 'nose'	peu <sup>53</sup> 'explode'	peu <sup>53</sup>	ta <sup>55</sup>	peu <sup>53</sup>	neŋ <sup>55</sup>	'have bulging eyes and nose'
		ɬem <sup>323</sup> 'bend'	ɬem <sup>323</sup>	ta <sup>55</sup>	ɬem <sup>323</sup>	neŋ <sup>55</sup>	'with lowered eyes and nose'
		ŋiu <sup>55</sup> 'twist'	ŋiu <sup>55</sup>	ta <sup>55</sup>	ŋiu <sup>55</sup>	neŋ <sup>55</sup>	'make grimace'
		pit <sup>323</sup> 'bounce'	pit <sup>323</sup>	ta <sup>55</sup>	pit <sup>323</sup>	neŋ <sup>55</sup>	'naughty'
		em <sup>11</sup> 'bitter'	em <sup>11</sup>	ta <sup>55</sup>	em <sup>11</sup>	neŋ <sup>55</sup>	'bitter tasting'
		em <sup>35</sup> 'confused'	em <sup>35</sup>	ta <sup>55</sup>	em <sup>35</sup>	neŋ <sup>55</sup>	'muddled, confused'
		en <sup>53</sup> 'piebald'	en <sup>53</sup>	ta <sup>55</sup>	en <sup>53</sup>	neŋ <sup>55</sup>	'have dirty, piebald face'
əp <sup>55</sup> 'mouth'	neŋ <sup>55</sup> 'nose'	lai <sup>55</sup> 'good'	lai <sup>55</sup>	ta <sup>55</sup>	lai <sup>55</sup>	neŋ <sup>55</sup>	'vigorous'
		lu <sup>35</sup> 'clear'	lu <sup>35</sup>	ta <sup>55</sup>	lu <sup>35</sup>	neŋ <sup>55</sup>	'be fully waken up'
		e <sup>323</sup> 'stupid'	e <sup>323</sup>	əp <sup>55</sup>	e <sup>323</sup>	neŋ <sup>55</sup>	'awkward in speech'
		mak <sup>323</sup> 'big'	mak <sup>323</sup>	əp <sup>55</sup>	mak <sup>323</sup>	neŋ <sup>55</sup>	'be a bragger'
tin <sup>55</sup> 'foot'	mia <sup>11</sup> 'hand'	pen <sup>53</sup> 'throw'	pen <sup>53</sup>	tin <sup>55</sup>	pen <sup>53</sup>	mia <sup>11</sup>	'indifferent'
		piet <sup>11</sup> 'bind'	piet <sup>11</sup>	tin <sup>55</sup>	piet <sup>11</sup>	mia <sup>11</sup>	'with hands and feet tied'
		lai <sup>55</sup> 'good'	lai <sup>55</sup>	tin <sup>55</sup>	lai <sup>55</sup>	mia <sup>11</sup>	'skillful'
		ɬau <sup>55</sup> 'numb'	ɬau <sup>55</sup>	tin <sup>55</sup>	ɬau <sup>55</sup>	mia <sup>11</sup>	'with numb limbs'
loŋ <sup>11</sup> 'belly'	sai <sup>323</sup> 'intestines'	kʰwan <sup>13</sup> 'wide'	kʰwan <sup>13</sup>	tin <sup>55</sup>	kʰwan <sup>13</sup>	mia <sup>11</sup>	'extravagant'
		peŋ <sup>55</sup> 'crumble'	peŋ <sup>55</sup>	loŋ <sup>11</sup>	peŋ <sup>55</sup>	sai <sup>323</sup>	'heartbroken'
		lit <sup>31</sup> 'tear open'	lit <sup>31</sup>	loŋ <sup>11</sup>	lit <sup>31</sup>	sai <sup>323</sup>	'frank'
		pʰa <sup>453</sup> 'ruin'	pʰa <sup>453</sup>	loŋ <sup>11</sup>	pʰa <sup>453</sup>	sai <sup>323</sup>	'evil-minded'
		peŋ <sup>55</sup> 'broken'	peŋ <sup>55</sup>	loŋ <sup>11</sup>	peŋ <sup>55</sup>	sai <sup>323</sup>	'heartbroken'
em <sup>11</sup> 'bitter'	em <sup>11</sup>	loŋ <sup>11</sup>	em <sup>11</sup>	sai <sup>323</sup>	'malevolent, malicious'		

Table 2.20: *Body part constructions in Kam*

In *Kam*, there are about seven directional verbs that incorporate nouns conceived as destinations to yield both abstract and metaphorical compounds. Among these, two directional verbs, *pai*<sup>55</sup> 'go' and *ta*<sup>33</sup> 'cross', developed into aspectual markers (see subsection on 'Auxiliary Verbs' below).

<i>Directional Verb</i>	<i>Noun</i>	<i>Directional verb-noun compounds</i>	
pai <sup>55</sup> 'go'	ɕai <sup>33</sup> 'village'	pai <sup>55</sup> ɕai <sup>33</sup>	'walk in the village' (and meet people)
	tɕiu <sup>11</sup> 'bridge'	pai <sup>55</sup> tɕiu <sup>11</sup>	'hold lover's meeting' (at the bridge)
	kon <sup>31</sup> 'assembly'	pai <sup>55</sup> kon <sup>31</sup>	'hold solemn assembly'
	sau <sup>31</sup> 'husband'	pai <sup>55</sup> sau <sup>31</sup>	'get married to husband'
	ka <sup>31</sup> 'Han'	pai <sup>55</sup> ka <sup>31</sup>	'visit the Han area'
	maŋ <sup>53</sup> tɕəm <sup>55</sup> 'Hades'	pai <sup>55</sup> maŋ <sup>53</sup> tɕəm <sup>55</sup>	'go to the hereafter'
ma <sup>35</sup> 'come'	sum <sup>31</sup> 'inner room'	ma <sup>35</sup> sum <sup>31</sup>	'enter private sphere'
tɕa <sup>453</sup> 'ascend'	kwan <sup>55</sup> 'name'	tɕa <sup>453</sup> kwan <sup>55</sup>	'register' (at the birth registry office)
	men <sup>55</sup> 'sky'	tɕa <sup>453</sup> men <sup>55</sup>	'go to upper floor' (of skyscraper)
	ŋe <sup>31</sup> 'tile'	tɕa <sup>453</sup> ŋe <sup>31</sup>	'to roof'
	nem <sup>31</sup> 'water'	tɕa <sup>453</sup> nem <sup>31</sup>	'become watery' (food decomposition)
	jak <sup>31</sup> 'rust'	tɕa <sup>453</sup> jak <sup>31</sup>	'to rust'
	wak <sup>31</sup> 'society'	tɕa <sup>453</sup> wak <sup>31</sup>	'gather people'
	lo <sup>55</sup> 'boat'	tɕa <sup>453</sup> lo <sup>55</sup>	'get into a boat'
	ɕon <sup>11</sup> 'table'	tɕa <sup>453</sup> ɕon <sup>11</sup>	'sit down at table'
	so <sup>33</sup> 'voice'	tɕa <sup>453</sup> so <sup>33</sup>	'raise voice'
lui <sup>33</sup> 'descend'	məi <sup>31</sup> 'tree'	lui <sup>33</sup> məi <sup>31</sup>	'climb down tree'
	ɕon <sup>11</sup> 'table'	lui <sup>33</sup> ɕon <sup>11</sup>	'get up from table'
	kwe <sup>323</sup> 'stairs'	lui <sup>33</sup> kwe <sup>323</sup>	'go down stairs'
lau <sup>323</sup> 'enter'	nem <sup>31</sup> 'water'	lau <sup>323</sup> nem <sup>31</sup>	'swim', 'go into water'
	kʰa <sup>35</sup> 'ear'	lau <sup>323</sup> kʰa <sup>35</sup>	'pleasing to the ear'
	sai <sup>323</sup> 'intestines'	lau <sup>323</sup> sai <sup>323</sup>	'satisfying'
uk <sup>323</sup> 'exit'	kwan <sup>55</sup> 'name'	uk <sup>323</sup> kwan <sup>55</sup>	'famous'
	tin <sup>55</sup> 'foot'	uk <sup>323</sup> tin <sup>55</sup>	'travel'
	na <sup>323</sup> 'face'	uk <sup>323</sup> na <sup>323</sup>	'appear' ( <i>lit.</i> 'show one's face')
	ŋe <sup>11</sup> 'tooth'	uk <sup>323</sup> ŋe <sup>11</sup>	'have tooth pushing through'
	lu <sup>33</sup> 'event'	uk <sup>323</sup> lu <sup>33</sup>	'have an accident'
	lek <sup>11</sup> 'strength'	uk <sup>323</sup> lek <sup>11</sup>	'spend one's energy'
	pʰat <sup>13</sup> 'blood'	uk <sup>323</sup> pʰat <sup>13</sup>	'bleed'
ta <sup>33</sup> 'cross'	ŋin <sup>11</sup> 'year'	ta <sup>33</sup> ŋin <sup>11</sup>	'celebrate New Year'
	ɕən <sup>55</sup> 'body'	ta <sup>33</sup> ɕən <sup>55</sup>	'die'

Table 2.21: Directional verb-noun compounds in Kam

Ambitransitive verbs are verbs with intransitive and monotransitive uses. Their intransitive use cannot be interpreted as pro-drop. Most authors distinguish

two types of ambitransitive verbs: unergative and unaccusative verbs.<sup>56</sup> Unergative<sup>57</sup> verbs align the intransitive S- and monotransitive A-argument, whereas unaccusative<sup>58</sup> verbs collectively group the intransitive S and the monotransitive O. In *Kam*, there is an abundant supply of ambitransitive predicates, which are unaccusative, with the rest being unergative. We present several unaccusative predicates below.

<i>Intransitive Predicate</i>	<i>Noun</i>	<i>Unaccusative verb constructions</i>
təp <sup>11</sup> 'dull'	mia <sup>31</sup> 'knife'	təp <sup>11</sup> mia <sup>31</sup> 'make knife dull'
pui <sup>11</sup> 'fat'	ŋu <sup>453</sup> 'pig'	pui <sup>11</sup> ŋu <sup>453</sup> 'fatten a pig'
au <sup>53</sup> 'old'	uk <sup>323</sup> 'clothes'	au <sup>53</sup> uk <sup>323</sup> 'wear out clothes'
tun <sup>55</sup> 'hot'	nem <sup>31</sup> 'water'	tun <sup>55</sup> nem <sup>31</sup> 'heat water'
jak <sup>55</sup> 'wet'	hai <sup>11</sup> 'shoe'	jak <sup>55</sup> hai <sup>11</sup> 'wet shoes'

Table 2.22: *Unaccusative verb constructions in Kam*

Instrumental nouns are adjunct constituents that are marked by prepositions (e.g. 'with') in most languages. In *Kam*, it is possible to 'incorporate' many instrumental nouns into the verb without additional marking. Examples are provided below.

<i>Verb</i>	<i>Noun</i>	<i>Instrumental verb-noun constructions</i>
tæm <sup>323</sup> 'stamp'	tin <sup>55</sup> 'foot'	tæm <sup>323</sup> tin <sup>55</sup> 'stamp on with foot'
peŋ <sup>53</sup> 'shoot'	əŋ <sup>53</sup> 'gun'	peŋ <sup>53</sup> əŋ <sup>53</sup> 'shoot with gun'
təiu <sup>53</sup> 'fish'	sit <sup>13</sup> 'hook'	təiu <sup>53</sup> sit <sup>13</sup> 'fish with a hook'
wai <sup>11</sup> 'row'	təaŋ <sup>323</sup> 'oar'	wai <sup>11</sup> təaŋ <sup>323</sup> 'row with oars'
kit <sup>31</sup> 'bite'	ŋe <sup>11</sup> 'tooth'	kit <sup>31</sup> ŋe <sup>11</sup> 'bite with teeth'
əəp <sup>13</sup> 'prick'	mia <sup>31</sup> 'knife'	əəp <sup>13</sup> mia <sup>31</sup> 'prick with knife'

Table 2.23: *Instrumental verb-noun constructions in Kam*

<sup>56</sup> Dixon and Aikhenvald (2000: 20) disprefer these terms as they are used with many different senses in the literature, without the involvement of clear cross-linguistic criteria.

<sup>57</sup> For example, the English verb 'watch' is unergative: 'Mary watches John'/'Mary watches'.

<sup>58</sup> For example, the English verb 'break' is unaccusative: 'John breaks the pen'/'The pen breaks'.

Some predicates can 'incorporate' a noun indicating the cause for the event or process. No additional marking of the noun on the basis of prepositions is necessitated.

<i>Predicate</i>	<i>Noun</i>	<i>Causal verb-noun compounds</i>		
təj <sup>55</sup> 'die'	nəm <sup>31</sup> 'water'	təj <sup>55</sup>	nəm <sup>31</sup>	'be drowned'
	k <sup>h</sup> wau <sup>13</sup> 'wine'	təj <sup>55</sup>	k <sup>h</sup> wau <sup>13</sup>	'be drunk'
	əm <sup>323</sup> 'poison'	təj <sup>55</sup>	əm <sup>323</sup>	'be empoisoned'
ɪt <sup>323</sup> 'ill'	nat <sup>55</sup> 'sore'	ɪt <sup>323</sup>	nat <sup>55</sup>	'ill from sore'

Table 2.24: Causal verb-noun compounds in Kam

There are several ditransitive predicates that do not employ any marking of the direct and indirect object. (Some of these predicates are ambitransitive in the sense of ambiguously intransitive, monotransitive, and ditransitive.) These predicates place the direct object before the indirect object.

<i>Ditransitive verb</i>	<i>Direct object</i>	<i>Indirect object</i>	<i>Ditransitive verb constructions</i>			
jip <sup>13</sup> 'pickle'	jim <sup>11</sup> 'salt'	nan <sup>11</sup> 'meat'	jip <sup>13</sup>	jim <sup>11</sup>	nan <sup>11</sup>	'pickle meat with salt'
so <sup>323</sup> 'dry'	nəm <sup>31</sup> 'water'	ja <sup>53</sup> 'field'	so <sup>323</sup>	nəm <sup>31</sup>	ja <sup>53</sup>	'withdraw water from the field'
liem <sup>11</sup> 'drench'	nəm <sup>31</sup> 'water'	ma <sup>55</sup> 'vegetables'	liem <sup>11</sup>	nəm <sup>31</sup>	ma <sup>55</sup>	'drench vegetables with water'
lu <sup>53</sup> 'abstain'	nəm <sup>31</sup> 'water'	pet <sup>55</sup> 'duck'	lu <sup>53</sup>	nəm <sup>31</sup>	pet <sup>55</sup>	'withhold water from the duck'
to <sup>323</sup> 'assign'	ŋaŋ <sup>13</sup> 'grass'	tu <sup>11</sup> 'ox'	to <sup>323</sup>	ŋaŋ <sup>13</sup>	tu <sup>11</sup>	'feed grass to the ox'
p <sup>h</sup> ja <sup>35</sup> 'feed'	mɪ <sup>323</sup> 'milk'	lak <sup>31</sup> 'son'	p <sup>h</sup> ja <sup>35</sup>	mɪ <sup>323</sup>	lak <sup>31</sup>	'feed milk to the son'

Table 2.25: Ditransitive verb constructions in Kam

Gradable adjectives on linear scales (e.g. length, time) pose the object of comparison before the adjective and postpose the standard of comparison without involving prepositions. It is the complex gradable adjectives (e.g. intelligent, beautiful etc.) that require posing the comparative preposition *ta*<sup>33</sup> before the standard of comparison. The simple linear adjectives which we exemplify below do not necessitate prepositions.

Adjective	Comparative Constructions			
mak <sup>323</sup> 'big'	mau <sup>33</sup>	mak <sup>323</sup>	ŋa <sup>11</sup>	'he is bigger than you'
p <sup>h</sup> aŋ <sup>35</sup> 'tall'	mau <sup>33</sup>	p <sup>h</sup> aŋ <sup>35</sup>	ŋa <sup>11</sup>	'he is taller than you'
un <sup>323</sup> 'small'	mau <sup>33</sup>	un <sup>323</sup>	ŋa <sup>11</sup>	'he is smaller than you'
t <sup>h</sup> em <sup>453</sup> 'low'	mau <sup>33</sup>	t <sup>h</sup> em <sup>453</sup>	ŋa <sup>11</sup>	'he is smaller than you'
jai <sup>323</sup> 'long'	təi <sup>11</sup> khwen <sup>35</sup> nai <sup>33</sup>	jai <sup>323</sup>	təi <sup>11</sup> khwen <sup>35</sup> təa <sup>33</sup>	'this road is longer than that road'
tə <sup>h</sup> ən <sup>13</sup> 'short'	təi <sup>11</sup> khwen <sup>35</sup> nai <sup>33</sup>	tə <sup>h</sup> ən <sup>13</sup>	təi <sup>11</sup> khwen <sup>35</sup> təa <sup>33</sup>	'this road is shorter than that road'
kun <sup>11</sup> 'much'	(k)e <sup>35</sup>	kun <sup>11</sup>	əau <sup>35</sup>	'they are more than you'
tə <sup>h</sup> en <sup>35</sup> 'heavy'	mau <sup>33</sup>	tə <sup>h</sup> en <sup>35</sup>	ŋa <sup>11</sup>	'he is heavier than you'
tə <sup>h</sup> a <sup>13</sup> 'light'	mau <sup>33</sup>	tə <sup>h</sup> a <sup>13</sup>	ŋa <sup>11</sup>	'he is lighter than you'
lau <sup>31</sup> 'old'	mau <sup>33</sup>	lau <sup>31</sup>	ŋa <sup>11</sup>	'he is older than you'
ŋi <sup>31</sup> 'young'	mau <sup>33</sup>	ŋi <sup>31</sup>	ŋa <sup>11</sup>	'he is younger than you'

Table 2.26: Comparative constructions in Kam

## B. Coverbs in Tai-Kadai

The term *coverb* has different meanings. For linguists of Australian and South American languages,<sup>59</sup> coverbs are uninflected verbs that form an open class and co-occur with a small set of inflected classificatory verbs. For linguists of East Asian languages, coverbs signify verbs which grammaticalized as pre- or postpositions. It is possible to reconstruct a verbal meaning for the majority of prepositions in Tai-Kadai languages. A minimum of three coverbs are extensively shared in Tai-Kadai languages. The coverb 'take' is used variably to encode the roles of direct object, instrument, and cause; the coverb 'give' marks indirect objects and can mark the causee as well as the agent (sometimes) in passive constructions. The coverb 'touch'<sup>60</sup> is the mark of passive constructions and also functions as the modal auxiliary verb 'must' in several Tai-Kadai languages.

<sup>59</sup> See McGregor (2002) and Dickinson (2002).

<sup>60</sup> In a narrow sense, the auxiliary 'touch' is not a preposition, but a matrix verb. For discussion on this point, see Gerner (2003a).

Verb	Coverb/Auxiliary	<i>Kam</i> <sup>61</sup>	<i>Zhuang</i> <sup>62</sup>	<i>Nung</i> <sup>63</sup>	<i>Thai</i> <sup>64</sup>	<i>Gelao</i> <sup>65</sup>	<i>Buyang</i> <sup>66</sup>	<i>Hlai</i> <sup>67</sup>
'take'		au <sup>55</sup>	ʔau <sup>24</sup>	au <sup>35</sup>	aw <sup>33</sup>	ta <sup>35</sup>	jak <sup>55</sup>	tew <sup>53</sup>
	Direct object	tei <sup>11</sup>	dau <sup>42</sup>			me <sup>31</sup>	me <sup>31</sup>	tew <sup>53</sup>
	Instrumental	au <sup>55</sup>	ʔau <sup>24</sup>	au <sup>35</sup>	aw <sup>33</sup>	ta <sup>35</sup>	jak <sup>55</sup>	tew <sup>53</sup>
	Causee	au <sup>55</sup>	ʔau <sup>24</sup>					tew <sup>53</sup>
	(Mood: 'want')	au <sup>55</sup>	ʔau <sup>24</sup>					tew <sup>53</sup>
'give' 'do'		sai <sup>35</sup>	hau <sup>55</sup>	hu <sup>31</sup>	haj <sup>42</sup>	na <sup>35</sup>	nak <sup>11</sup>	tw:ŋ <sup>55</sup>
	Indirect object			hu <sup>31</sup>	haj <sup>42</sup>	na <sup>35</sup>	du <sup>322</sup>	tw:ŋ <sup>55</sup>
	Causee	sai <sup>35</sup>	hau <sup>55</sup>	hu <sup>31</sup>	haj <sup>42</sup>	na <sup>35</sup>	nak <sup>11</sup>	tw:ŋ <sup>55</sup>
	Passive						nak <sup>11</sup>	tw:ŋ <sup>55</sup>
'touch' 'hit'		təu <sup>33</sup>	te:ŋ <sup>24</sup>	?	thu:k <sup>11</sup>		tea:k <sup>322</sup>	tan <sup>55</sup>
	Passive	təu <sup>33</sup>	ŋa:i <sup>42</sup>	?	do:n <sup>33</sup>	paŋ <sup>31</sup>		lo:m <sup>53</sup>
	(Mood: 'must')	təu <sup>33</sup>	te:ŋ <sup>24</sup>	?	thu:k <sup>11</sup>	do:n <sup>33</sup>	paŋ <sup>31</sup>	
	(Mood: 'able') (Result. aspect)	təu <sup>33</sup>	te:ŋ <sup>24</sup>			paŋ <sup>31</sup>	tea:k <sup>322</sup>	
'arrive' 'enter'		təu <sup>453</sup>	tan <sup>42</sup>		thəŋ <sup>24</sup>	tau <sup>31</sup>	kəu <sup>33</sup>	da:n <sup>11</sup>
	Direction	təu <sup>453</sup>	tan <sup>42</sup>	kəu <sup>31</sup>	thəŋ <sup>24</sup>	tau <sup>31</sup>	kəu <sup>33</sup>	da:n <sup>11</sup>

Table 2.27: Coverbs in Tai-Kadai

<sup>61</sup> The data are fieldwork of Matthias Gerner collected in 1996-2003.

<sup>62</sup> The Zhuang data originate from the standard Yōngběi 邕北 dialect and were collected by Matthias Gerner during 1996-1999. They are congruent with data published by Qín (2004) and Luó (2005). Zhuang has borrowed from Chinese the passive auxiliary ŋa:i<sup>42</sup> (挨).

<sup>63</sup> See Saul and Freiberger Wilson (1980)'s *Nung Grammar*. For au<sup>35</sup> (instrumental) see Saul and Freiberger Wilson (1980: 111). For hu<sup>31</sup> (indirect object) see Saul and Freiberger Wilson (1980: 68). For hu<sup>31</sup> (causee) see Saul and Freiberger Wilson (1980: 110). For 'touch' and 'hit', Saul and Freiberger Wilson (1980) did not investigate passive constructions in their grammar of Nung. For kəu<sup>31</sup> (direction) see Saul and Freiberger Wilson (1980: 89).

<sup>64</sup> See Iwasaki and Ingkaphirom (2005: 18).

<sup>65</sup> The data are the fieldwork of Matthias Gerner collected in 1996-1998.

<sup>66</sup> See Li and Luo (2010). The verb nak<sup>11</sup> 'give' has given rise to a secondary passive construction (alongside with teo<sup>31</sup>) in which it underwent a sound change nak<sup>11</sup> > ŋe<sup>31</sup>, when it is used as passive auxiliary.

<sup>67</sup> The Hlai data have been quoted from Burusphat et al. (2003)'s dictionary.

There are two passives in Buyang and in other Tai-Kadai languages. The verb *tɕa:k*<sup>322</sup> ‘touch’ grammaticalized as preverbal modal auxiliary verb, indicating ability. It further truncated the syllable coda, changed into *tɕ*<sup>31</sup>, and was re-analyzed as passive auxiliary and resultative auxiliary.

*Passive and resultative ‘touch’ (Buyang)*

- (9) a. kə<sup>55</sup> tɕ<sup>31</sup> ka:p<sup>31</sup> ʔan<sup>24</sup> ta<sup>55</sup>teŋ<sup>24</sup>.  
 3.SG PASS squeeze place middle  
 ‘He got caught in between.’
- b. mɛk<sup>33</sup> ʔi<sup>33</sup> ni<sup>55</sup> ʔan<sup>322</sup> ha<sup>33</sup> tɕa:k<sup>322</sup> tɕ<sup>31</sup> ja<sup>11</sup>.  
 load rice DEM.PROX exist person touch RES MOD  
 ‘Someone has touched this load of rice.’

### 2.3.4 Tense, Aspect, and Mood

Bare verbs are common in Tai-Kadai languages and are used to communicate ambiguous TAM (tense, aspect, and mood) meanings. Similar to other isolating East Asian languages, verbs are not marked for subject agreement, but only for TAM concepts. Standard TAM meanings are perfect, progressive, experiential, and habitual aspect, future tense, epistemic, or deontic mood. The verb particles encoding these concepts are grammaticalized verbs. In this subsection, we survey the most common TAM particles whilst also covering the strategies for expressing negation in various Tai-Kadai languages.

#### A. Auxiliary verbs in Tai-Kadai

Aspect and mood particles are typically derived from directional verbs: ‘go’ (completive aspect), ‘come’ (perfect), ‘ascend’ (inchoative aspect), ‘descend’ (inchoative aspect), and ‘pass’ (experiential aspect). The verb ‘get’ gives rise to deontic mood (‘can’) and the resultative aspect.

Verb	Auxiliary	<i>Kam</i> <sup>68</sup>	<i>Zhuang</i> <sup>69</sup>	<i>Nung</i> <sup>70</sup>	<i>Thai</i> <sup>71</sup>	<i>Be</i> <sup>72</sup>	<i>Gelao</i> <sup>73</sup>	<i>Buyang</i> <sup>74</sup>	<i>Hlai</i> <sup>75</sup>
'go'		pai <sup>55</sup>	pai <sup>24</sup>	paj <sup>35</sup>	paj <sup>33</sup>	boi <sup>213</sup>	vu <sup>35</sup>	ða <sup>31</sup>	hej <sup>53</sup>
	Continuous aspect	pai <sup>55</sup>	pai <sup>24</sup>	paj <sup>35</sup>	paj <sup>33</sup>		vu <sup>35</sup> tɕiŋ <sup>13</sup>		
	Completive aspect	pai <sup>55</sup>	pai <sup>24</sup>	?	paj <sup>33</sup>				
'come'		ma: <sup>35</sup>	ma <sup>24</sup> /tau <sup>55</sup>	ma <sup>33</sup>	ma: <sup>33</sup>	mia <sup>55</sup>	mu <sup>35</sup>	no <sup>31</sup>	pw:n <sup>11</sup>
	Perfect	ma: <sup>35</sup>		?	ma: <sup>33</sup>				
'ascend'		tɕa <sup>453</sup>	hwn <sup>55</sup>	k <sup>h</sup> u:n <sup>13</sup>	k <sup>h</sup> ɛn <sup>42</sup>	kən <sup>33</sup>	pa <sup>35</sup>	na <sup>31</sup>	k <sup>h</sup> a:n <sup>53</sup>
	Inchoative aspect		hwn <sup>55</sup>		k <sup>h</sup> ɛn <sup>42</sup>				
'descend'		lui <sup>33</sup>	roŋ <sup>42</sup>	lo:ŋ <sup>33</sup>	loŋ <sup>33</sup>	loŋ <sup>55</sup>	to <sup>31</sup>	ðoŋ <sup>45</sup>	tshau <sup>11</sup>
	Inchoative aspect		roŋ <sup>42</sup>		loŋ <sup>33</sup>				
'get'		lɿ <sup>323</sup>	dai <sup>55</sup>	ɗaj <sup>13</sup>	daj <sup>42</sup>	hək <sup>55</sup>		duw <sup>33</sup>	go:m <sup>11</sup>
	Resultative aspect	lɿ <sup>323</sup>	dai <sup>55</sup>		daj <sup>42</sup>	hək <sup>55</sup>		duw <sup>33</sup>	
'pass'	Deontic mood ('can')	lɿ <sup>323</sup>	dai <sup>55</sup>	ɗaj <sup>13</sup>				duw <sup>33</sup>	
		ta <sup>33</sup>	k <sup>w</sup> a <sup>44</sup>	tɕa <sup>33</sup>	lə: <sup>33</sup>	k <sup>w</sup> a <sup>33</sup>	pie <sup>42</sup>	qui <sup>45</sup>	dua <sup>11</sup>
	Resultative aspect		k <sup>w</sup> a <sup>44</sup>						dua <sup>11</sup>
	Experiential aspect	ta <sup>33</sup>	k <sup>w</sup> a <sup>44</sup>	?		k <sup>w</sup> a <sup>33</sup>	pie <sup>42</sup>	qui <sup>45</sup>	dua <sup>11</sup>
	Discourse part ('too')				lə: <sup>33</sup>			qui <sup>45</sup>	

Table 2.28: Auxiliaries verbs in Tai-Kadai

To illustrate, the *Zhuang* auxiliary *pai*<sup>24</sup> 'go' conveys the meaning of continuous aspect when posed after stative verbs (or abstract verbs); equally pertinently, it communicates the sense of resultative aspect after dynamic verbs.

<sup>68</sup> The Kam data are the fieldwork of Matthias Gerner collected in 1996-2003.

<sup>69</sup> The *Zhuang* data originate from the standard Yōngbēi 邕北 dialect and were collected by Matthias Gerner during 1996-1999. They were checked with data published by Qín (2004) and Luó (2005).

<sup>70</sup> See Saul and Freiburger Wilson (1980)'s *Nung Grammar*.

<sup>71</sup> See Iwasaki and Ingkaphirom (2005: 18; 169-170).

<sup>72</sup> The data are the fieldwork of Matthias Gerner collected in 1996-1998.

<sup>73</sup> The data are the fieldwork of Matthias Gerner collected in 1996-1998.

<sup>74</sup> See Li and Luo (2010).

<sup>75</sup> The Hlai data are quoted from Burusphat et al. (2003)'s dictionary.



c.	daŋ <sup>33</sup>	<b>kʰuŋ</b> <sup>42</sup>	‘get noisier’	d.	ŋiap <sup>55</sup>	<b>loŋ</b> <sup>33</sup>	‘get quieter’
	noisy	INCH			quiet	INCH	
e.	sa:w <sup>24</sup>	<b>kʰuŋ</b> <sup>42</sup>	‘get younger’	f.	ke: <sup>11</sup>	<b>loŋ</b> <sup>33</sup>	‘get older’
	young	INCH			old	INCH	
g.	kʰeŋ <sup>24</sup> re:ŋ <sup>33</sup>	<b>kʰuŋ</b> <sup>42</sup>	‘get stronger’	h.	pʰo:m <sup>33</sup>	<b>loŋ</b> <sup>33</sup>	‘get thinner’
	strong	INCH			thin	INCH	
i.	pʰe:ŋ <sup>33</sup>	<b>kʰuŋ</b> <sup>42</sup>	‘get more expensive’	j.	tʰu:k <sup>11</sup>	<b>loŋ</b> <sup>33</sup>	‘get cheaper’
	expensive	INCH			cheap	INCH	

The *Kam* auxiliary *lɿ*<sup>323</sup> ‘get’ can occur before and after another verb. When posed after a verb, it functions as a resultative aspect auxiliary; it functions as a permissive mood auxiliary when it is placed before a verb.

*Resultative and permissive ‘get’ (Kam)*

- |         |                   |                   |                          |                     |    |                   |                          |                     |
|---------|-------------------|-------------------|--------------------------|---------------------|----|-------------------|--------------------------|---------------------|
| (15) a. | jau <sup>11</sup> | səm <sup>33</sup> | <b>lɿ</b> <sup>323</sup> | mau <sup>33</sup> . | b. | mau <sup>33</sup> | <b>lɿ</b> <sup>323</sup> | pai <sup>55</sup> . |
|         | 1.SG              | search            | RES                      | 3.SG                |    | 3.SG              | MOD.can                  | go                  |
|         | ‘I found him.’    |                   |                          |                     |    | ‘He can go.’      |                          |                     |

The *Buyang* directional verb *qui*<sup>45</sup> ‘pass’ has grammaticalized into an experiential aspect marker and into an emphatic discourse marker (‘too much’), two distinct meanings that are illustrated below.

*Auxiliary ‘pass’ (Buyang)*

- |         |   |                          |                   |                          |                     |                   |                    |                          |                    |                     |
|---------|---|--------------------------|-------------------|--------------------------|---------------------|-------------------|--------------------|--------------------------|--------------------|---------------------|
| (16)    | ma:u <sup>33</sup>  | tin <sup>45</sup>        | li <sup>24</sup>  | du <sup>33</sup>         | na <sup>33</sup> ,  | tu <sup>322</sup> | pʰwŋ <sup>45</sup> | <b>qui</b> <sup>45</sup> | na:n <sup>33</sup> | wat <sup>55</sup> . |
|         | put on  | clothes                  | trousers          | NOM                      | thick               | 1.PL              | then               | pass                     | month              | NUM.10              |
|         | ‘Put on more clothes, and we’ll be able to pass through October.’ |                          |                   |                          |                     |                   |                    |                          |                    |                     |
| (17)    | təw <sup>24</sup> ja <sup>33</sup>                                | kə <sup>55</sup>         | θau <sup>31</sup> | <b>qui</b> <sup>45</sup> | mi <sup>322</sup> . |                   |                    |                          |                    |                     |
|         | before  | 3.SG                     | hunt              | EXP                      | bear                |                   |                    |                          |                    |                     |
|         | ‘He went bear-hunting before.’                                    |                          |                   |                          |                     |                   |                    |                          |                    |                     |
| (18) a. | nha:i <sup>33</sup>   | <b>qui</b> <sup>45</sup> | ja <sup>11</sup>  |                          |                     |                   |                    |                          |                    |                     |
|         | tired   | EMP                      | very              |                          |                     |                   |                    |                          |                    |                     |
|         | ‘too tired’   |                          |                   |                          |                     |                   |                    |                          |                    |                     |
| b.      | qoŋ <sup>322</sup>  | <b>qui</b> <sup>45</sup> | ja <sup>11</sup>  |                          |                     |                   |                    |                          |                    |                     |
|         | small   | EMP                      | very              |                          |                     |                   |                    |                          |                    |                     |
|         | ‘too small’   |                          |                   |                          |                     |                   |                    |                          |                    |                     |

## B. Negation in Tai-Kadai

Every Tai-Kadai language employs a neutral negation particle and a range of more specialized particles. The *Gelao* language uses a general negation particle that is always placed at the end of the sentence, whereas the negation particle(s) of other Tai-Kadai languages are placed before the verb. Importantly, the system of negation particles in the Sānjiāng dialect of *Kam* is particularly rich and will be sketched at the end of this subsection.

Negation	<i>Kam</i> <sup>78</sup>	<i>Zhuang</i> <sup>79</sup>	<i>Nung</i> <sup>80</sup>	<i>Thai</i> <sup>81</sup>	<i>Be</i> <sup>82</sup>	<i>Gelao</i> <sup>83</sup>	<i>Buyang</i> <sup>84</sup>	<i>Hlai</i> <sup>85</sup>
general	me <sup>11</sup>	mbou <sup>55</sup>	bo <sup>55</sup> /bo <sup>55</sup> mi <sup>33</sup>	maj <sup>42</sup>	mən <sup>55</sup>	-ʔæ <sup>42</sup>	pi <sup>55</sup>	ta <sup>53</sup> /ai <sup>11</sup>
'without'	oŋ <sup>35</sup>							wen <sup>11</sup>
'not yet'	mɪ <sup>31</sup>	mbou <sup>55</sup> ɛaŋ <sup>42</sup>	bo <sup>55</sup> mi <sup>33</sup> sa:ŋ <sup>33</sup>	jaŋ <sup>33</sup> maj <sup>42</sup>	mən <sup>55</sup>	ʔa <sup>35</sup> pej <sup>13</sup> _	pi <sup>55</sup> ja <sup>322</sup>	ta <sup>53</sup>
imperative	pi <sup>31</sup>	ka:i <sup>44</sup>	da <sup>33</sup>	ja <sup>11</sup>	mən <sup>55</sup> ŋa <sup>11</sup>	tau <sup>35</sup> _	pi <sup>55</sup> ɔ <sup>322</sup>	jou <sup>11</sup>
'too much'							pi <sup>55</sup> ka <sup>55</sup> ŋaŋ <sup>31</sup>	

Table 2.29: *Negation particles in Tai-Kadai*

As just mentioned, the general negation particles of Tai-Kadai languages are prefixed to the verb with one exception: the particle -ʔæ<sup>42</sup> in *Gelao* is placed after the verb phrase at the end of the sentence, as illustrated in (19).

<sup>78</sup> The Kam data of this chart represent Standard Southern Kam (Róngjiāng 榕江 county). They differ from the Southern Kam data of Sānjiāng 三江 county which we have sketched below.

<sup>79</sup> The Zhuang data originate from the standard Yōngběi 邕北 dialect and were collected by Matthias Gerner during 1996-1999. They were checked with data published by Qin (2004) and Luó (2005).

<sup>80</sup> See Saul and Freiberger Wilson (1980)'s *Nung Grammar*, p.46.

<sup>81</sup> The adverb jaŋ<sup>33</sup> 'still' together with the negation particle maj<sup>42</sup> forms jaŋ<sup>33</sup>maj<sup>42</sup> 'not yet'. See Iwasaki and Ingkaphirom (2005: 206).

<sup>82</sup> The data are the fieldwork of Matthias Gerner collected in 1996-1998.

<sup>83</sup> The data are the fieldwork of Matthias Gerner collected in 1996-1998.

<sup>84</sup> See Li and Luo (2010: 121).

<sup>85</sup> The Hlai data have been quoted from Burusphat et al. (2003)'s dictionary.

*Negation suffix (Gelao)*

- (19) ʔj<sup>42</sup> sa<sup>35</sup> mu<sup>35</sup> vu<sup>35</sup> pi<sup>a42</sup> tsan<sup>31</sup> ʔæ<sup>42</sup>.  
 1.SG with 2.SG go put sheep NEG  
 'I am not going to lead the sheep to pasture.'

In *Buyang*, the expression pi<sup>55</sup>ka<sup>55</sup>ŋ<sub>2</sub>an<sup>31</sup> 'too (much)' comprises of the negative particle pi<sup>55</sup> 'not' and the adverb ka<sup>55</sup>ŋ<sub>2</sub>an<sup>31</sup> 'very (much)'. The equivalent expressions of other Tai-Kadai languages do not involve the negation particle and are therefore not listed in the above table.

*Expression 'too much' (Buyang)*

- (20) kə<sup>55</sup> m<sup>h</sup>oj<sup>45</sup> pi<sup>55</sup>kə<sup>55</sup>ŋ<sub>2</sub>an<sup>31</sup>.  
 3.SG fast too much  
 'He is too fast.'

In the Sānjiāng dialect of *Kam*,<sup>86</sup> there are five negation particles that blend the notion of negation with a range of aspectual and modal meanings. However, this amalgamation of meanings is normally expressed by two forms in other languages.

<i>Particle</i>	<i>Position</i>	<i>Concept</i>	<i>Gloss</i>
k <sup>w</sup> e <sup>11</sup>	before <i>Predicate</i>	Negation (neutral)	'not'
oŋ <sup>35</sup>	before <i>Noun</i>	Negation of existence of noun referent	'without'
mɪ <sup>31</sup>	before <i>Predicate</i>	Negation of time before current time	'not yet'
kəi <sup>323</sup>	before <i>Predicate</i>	Boulemic negation	'not want'
kɪ <sup>323</sup>	after <i>Predicate</i>	Negation of ability	'cannot'
pi <sup>31</sup>	before <i>Predicate</i>	Negative imperative	'don't'

Table 2.30: Negation particles in Sānjiāng Kam

The following sentences illustrate these particles in minimal pairs.

<sup>86</sup> The Sānjiāng Kam data of this subsection were collected by Matthias Gerner in 2002.

- (21) a. tu<sup>11</sup> pət<sup>55</sup> naj<sup>33</sup> kwe<sup>11</sup> uk<sup>323</sup> lek<sup>31</sup>.  
 CL duck DEM.PROX NEG hatch, exit young, son  
 ‘This duck **does/did not** hatch out any young.’
- b. au<sup>31</sup> loŋ<sup>11</sup> oŋ<sup>35</sup> mak<sup>11</sup> me<sup>55</sup>, nan<sup>11</sup> we<sup>31</sup> ek<sup>13</sup> ʔu<sup>55</sup> e:<sup>35</sup>. (Kam Proverb)  
 in belly without ink difficult make guest up others  
 ‘If you are not knowledgeable (lit. if you don’t have ink in your belly), you are not going to surpass others.’
- c. tu<sup>11</sup> pət<sup>55</sup> naj<sup>33</sup> mɪ<sup>31</sup> uk<sup>323</sup> lek<sup>31</sup>.  
 CL duck DEM.PROX NEG hatch, exit young, son  
 ‘This duck **has not** hatched out any young **yet**.’
- d. tu<sup>11</sup> pət<sup>55</sup> naj<sup>33</sup> kəi<sup>323</sup> uk<sup>323</sup> lek<sup>31</sup>.  
 CL duck DEM.PROX NEG hatch, exit young, son  
 ‘This duck **does not want** to hatch out any young.’
- e. tu<sup>11</sup> pət<sup>55</sup> naj<sup>33</sup> uk<sup>323</sup> lek<sup>31</sup> kɪ<sup>323</sup> la<sup>11</sup>  
 CL duck DEM.PROX hatch, exit young, son NEG DP  
 ‘This duck **cannot** hatch any young.’
- f. pɪ<sup>31</sup> uk<sup>323</sup> lek<sup>31</sup>!  
 NEG hatch, exit young, son  
 ‘**Don’t** bear children!’

# Chapter 3

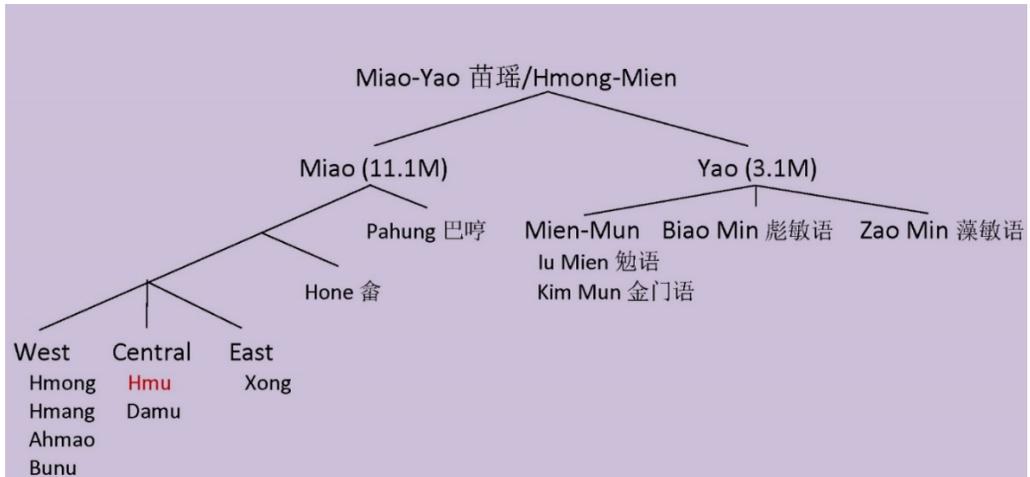
## Miao-Yao Linguistics

### 3.1 Introduction

The Miao-Yao 苗瑶 or Hmong-Mien languages are spoken by 14.2 million people primarily in Southwest China as well as the northern parts of Vietnam, Laos and Thailand. The Miao-Yao people are less populous and migrated less extensively than the Tai-Kadai groups. In the below sections, we describe a phylogenetic project and document linguistic highlights of the Miao languages.

### 3.2 Phylogenetics

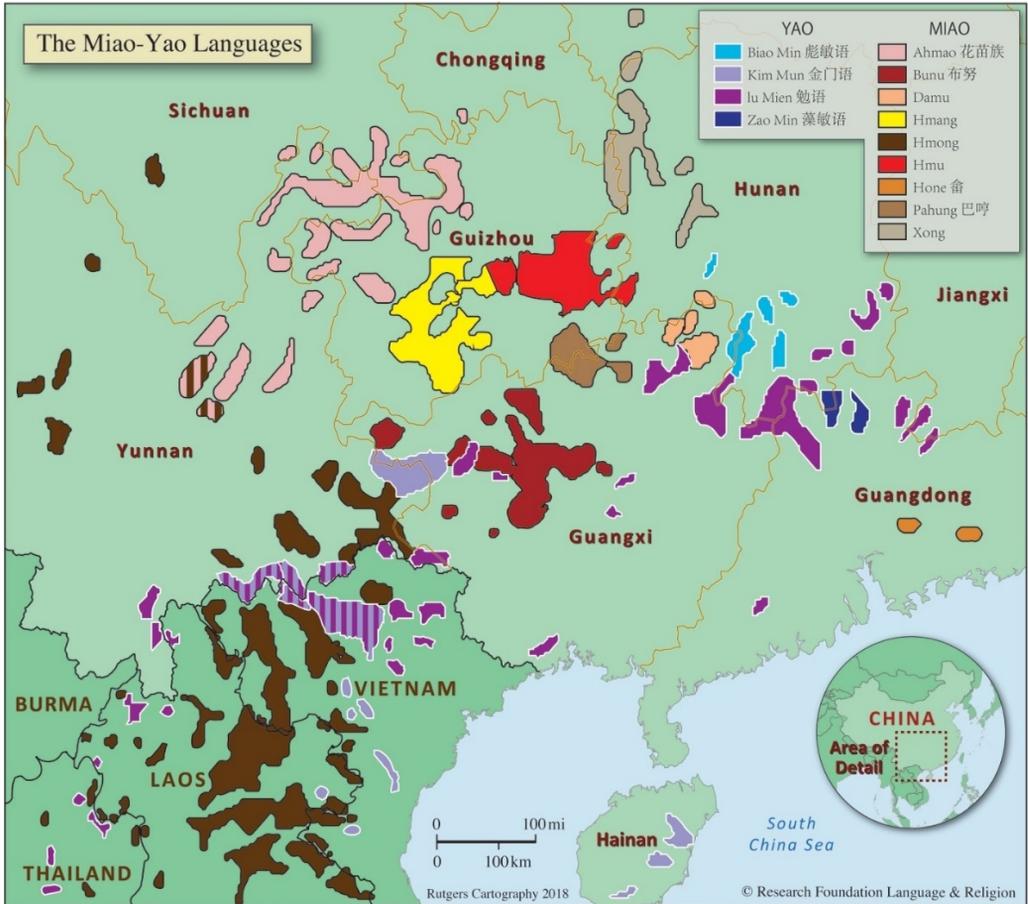
The Miao-Yao (Hmong-Mien) languages are spoken in nine provinces of Southwest China and across the border in neighboring Vietnam, Laos, and Thailand. Purnell (1970)'s reconstruction of Proto Miao-Yao premised on 20 contemporary languages signified the first milestone on the path of establishing the Miao-Yao family. In light of the scarcity of data available from China where more than 90% of the Miao-Yao population dwells, this work is now considered to be outdated.



Chinese scholars, in particular Wáng Fǔshì 王辅世, published broad data from Miao-Yao languages within China several years later (Wáng 1979, 1994; Wáng and Máo 1995). Wáng and his colleagues established a tri-partite division of the Miao languages (Western, Central and Eastern) and then established a linkage between Miao-Yao languages to the Sino-Tibetan family. However, this connection was rejected by most Western scholars due to the large number of Chinese loanwords in the reconstructions. Their raw data, nevertheless, formed the basis of further reconstructions of Miao-Yao languages (see Niederer 1998 and especially Ratliff 2010).

Native legends of the Miao people point toward an ancient migration from a “cold land in the north” (Savina 1924); some myths mention an ancient indigenous script that the ancestors of the Miao lost in the process of forced migration. Remnants of this pictographic writing are said to be preserved in the sophisticated embroidery pattern of clothes and costumes (Enwall 1994). However, as per Han Chinese records, “Miao 苗” is the name used for non-Chinese groups living in the Yangtze basin south of the Han areas during the Qin dynasty (221-206 BC). Most scholars therefore see no linguistic evidence for a place of origin of the Miao-Yao people other than China (see especially Sagart 1995: 341). After the 18<sup>th</sup> century AD, some Miao and Yao groups moved out of China into neighboring countries: Thailand, Laos, Vietnam and Myanmar. In the aftermath of the Second Indochina War (1960-1975), about 100,000 ethnic Miao and Yao were compelled to become refugees in the United States, France and Australia because they were allied with anti-communist forces that had lost the war. These Miao groups generally use

*Hmong* as their selfname, similar to all Western Miao. While most scholars have not developed migration theories, they do concede that the Miao people dwelling outside of China descend from the Western Miao subgroup.



Another group that might have been incited to migrate out of China is the *Hmu*, or Central Miao. In the 18<sup>th</sup> and 19<sup>th</sup> centuries, the *Hmu* mounted three rebellions in against the imperial government Guizhōu Province, all of which resulted in defeat:

- the First Miao Rebellion (1735-1738),
- the Second Miao Rebellion (1795-1806) and
- the Third Miao Rebellion (1854-1873).

Robert Jenks (1994) relates the motivations for the Miao to revolt to three types of grievances: the alienation of ancestral land by Han merchants, excessive government taxation, and maladministration on the part of officials. In addition to the Miao, other ethnic minorities, Muslims, discontented Han, and religious folk sects joined the insurrections during which, according to one account, almost five million people lost their lives and vast areas were depopulated. Besides anecdotal evidence, little to no data is available about population moving out of Southeast Guizhōu, the epicenter of the conflict. If such moves did occur, it is highly likely that the Miao walked through Guangxi province. Two questions need to be answered in order to help (dis)prove the issue of Central Miao's migration into Southeast Asia in the 19<sup>th</sup> century or earlier:

- Did Proto-Western Miao, Proto-Central Miao, and Proto-Eastern Miao separate from each other at the same time or do two of them share a closer relationship?
- Is the Bunu language of 400,000 speakers a Western Miao language, a Central Miao language, or an independent Miao language? The Bunu people, living in Central Guangxi province, were included by the Central Government in the Yao nationality, although they speak a Miao language (Strecker 1987). The genetic position of the Bunu language may illuminate key information on Miao migration patterns.

### 3.3 Documentation

In this section, we survey the Miao group in the domains of phonology, morphology, syntax, tense, aspect, and mood.

#### 3.3.1 Phonology

The Miao languages exhibit similar phonological systems with (C)(C)V(V)(C)T constituting the basic syllable structure. Several Miao languages use nasalized vowels and either six or eight tones.

#### A. Consonants

We sketch three peculiar consonant subsets, the *Hmu* three-way set of fricative consonants, the 27 simple plosive consonants in *Xong*, as well as the stop-lateral

clusters in *Western Miao* languages. The *Hmu* language<sup>1</sup> exhibits a notable three-way contrast in fricative consonants (voiced / unvoiced / aspirated), whereas plosive consonants only distinguish two modes of articulation (unvoiced/ aspirated).

[p]: pɛ <sup>35</sup> 'full'	[t]: tən <sup>31</sup> 'step on'		[k]: ki <sup>35</sup> 'lift'	[q]: qe <sup>53</sup> 'bald'
[pʰ]: pʰɛ <sup>33</sup> 'repair'	[tʰ]:		[kʰ]: kʰj <sup>33</sup>	[qʰ]: qʰei <sup>33</sup> 'tie'
[v]: ve <sup>31</sup> 'change'	[z]: <sup>2</sup> zən <sup>31</sup> 'person'	[z̥]: za <sup>31</sup> 'eight'	[ɣ]: ɣi <sup>33</sup> 'stone'	
[f]: fa <sup>11</sup> 'rise'	[s]: sən <sup>33</sup> 'cold'	[ɕ]: ɕa <sup>35</sup> 'difficult'		[χ]: χei <sup>33</sup> 'stick'
[fʰ]: fʰɛ <sup>35</sup> 'turn over'	[sʰ]: sʰən <sup>44</sup> 'believe'	[ɕʰ]: ɕʰa <sup>35</sup> 'spend'	[xʰ]: xʰi <sup>44</sup> 'quick'	

Table 3.1: Plosive and fricative consonants in *Hmu*

In *Xong*,<sup>3</sup> plosive consonants allow an exceptional number of secondary articulations such as prenasalization, palatalization, aspiration, and double or triple combinations thereof. These secondary articulations collectively build up a system of 27 simple plosive consonants for four points of articulation (bilabial, alveolar, velar, uvular).

[p]: pã <sup>41</sup> 'half'	[t]: taw <sup>14</sup> 'speech'		[k]: ki <sup>14</sup> 'wind'	[q]: qɣ <sup>43</sup> 'village'
[m̥p]: m̥pã <sup>454</sup> 'think'	[n̥t]: n̥taw <sup>14</sup> 'tree'		[k̥]: k̥a <sup>41</sup> 'medicine'	[q̥]: q̥ɣ <sup>41</sup> 'sing'
[p̥]: p̥jɛu <sup>43</sup> 'home'	[t̥]: t̥jɛu <sup>43</sup> 'complete'		[k̥j]: k̥jia <sup>41</sup> 'stir-fry'	
[pʰ]: pʰu <sup>22</sup> 'speak'	[tʰ]: tʰjɛ <sup>21</sup> 'stomach'		[kʰ]: kʰo <sup>43</sup> 'poor'	[qʰ]: qʰa <sup>43</sup> 'dry'
	[n̥t̥]: n̥t̥jɛ <sup>22</sup> 'to peck'		[k̥j̥]: k̥j̥e <sup>41</sup> 'gold'	
[m̥pʰ]: m̥pʰã <sup>43</sup> 'ant'	[n̥tʰ]: n̥tʰa <sup>43</sup> 'take off'		[k̥kʰ]: k̥kʰa <sup>43</sup> 'bow'	[q̥ʰ]: q̥ʰɛu <sup>43</sup> 'fall out'
[pʰ̥]: pʰ̥ja <sup>21</sup> 'blow'	[tʰ̥]: tʰ̥jɛ <sup>14</sup> 'press down'		[kʰ̥]: kʰ̥jɛ <sup>22</sup> 'open'	
[m̥pʰ̥]: m̥pʰ̥a <sup>21</sup> 'measure'	[n̥tʰ̥]: n̥tʰ̥o <sup>14</sup> 'smoky'		[k̥kʰ̥]: k̥kʰ̥o <sup>41</sup> 'magic'	

Table 3.2: Secondary articulations in *Xong*

<sup>1</sup> *Hmu* is a central Miao language spoken in Southeast Guizhōu by about 1.4 million people. The data presented herein were collected by Matthias Gerner during 1996-2003.

<sup>2</sup> In Chinese loanwords such as rén 人.

<sup>3</sup> *Xong* is an Eastern Miao language spoken by 900,000 people in Húnán province. The data in this section are quoted from Sposato's *Grammar of Xong* (2015) which analyzes the Xong language of Fènghuáng 凤凰 county.

A distinct trait of Western Miao languages is the inclusion of plosive-lateral clusters. It is notable that these complex consonants are not attested in Central and Eastern Miao languages. Plosive-lateral clusters exist in *Hékǒu Hmong*<sup>4</sup> for the bilabial and alveolar points of articulation, while in *Green Hmong*<sup>5</sup>, they are formed for the bilabial and velar positions.

[p]:	pla <sup>33</sup>	'once'	[t]:	tla <sup>35</sup>	'spoon'		
[pʰ]:	pʰlo <sup>44</sup>	'cheeks'	[tʰ]:	tʰla <sup>44</sup>	'run'		
[ <sup>m</sup> p]:	<sup>m</sup> pla <sup>33</sup>	'slippery'	[ <sup>n</sup> t]:	<sup>n</sup> tla <sup>35</sup>	'ask'		
[ <sup>m</sup> pʰ]:	<sup>m</sup> pʰlai <sup>54</sup>	'ring'	[ <sup>n</sup> tʰ]:	<sup>n</sup> tʰlao <sup>33</sup>	'hoop'		

Table 3.3: Plosive-lateral clusters in *Hékǒu Hmong*

[p]:	pláu	'four'			[k]:	kláw	'white'
[pʰ]:	pʰlaw	'shock'			[kʰ]:	kʰlěŋ	Particle
[ <sup>m</sup> p]:	mplê	'paddy'			[ <sup>ŋ</sup> k]:	<sup>ŋ</sup> klua	'flash'
[ <sup>m</sup> pʰ]:	(no illustration)				[ <sup>ŋ</sup> kʰ]:	(no illustration)	

Table 3.4: Plosive-lateral clusters in *Green Hmong*

## B. Vowels and Tones

Several Miao languages incorporate the use of nasalized vowels. The vowel system in *Xong*,<sup>6</sup> for example, involves four nasalized monophthongs along with one nasalized diphthong.

<sup>4</sup> This *Western Hmong* language is spoken in Hékǒu 河口 county of Yúnnán province. The data are quoted from Xióng and Cohen (2005).

<sup>5</sup> *Green Hmong* or *Blue Hmong* (the Hmong color term *njua* means green or blue) is a Western Miao language spoken in the provinces of Phrae and Nan in northern Thailand. The data are quoted from Lyman's *Grammar of Mong Njua* (1979).

<sup>6</sup> The data are quoted from Sposato (2015: 82-92).

Vowel type	unrounded			rounded
	front	central	back	back
Monophthongs	high	i, ĩ		u
	mid			ɤ, ǫ
	low	ɛ	a, ǣ	ɑ, ǻ
Diphthongs	ɛɰ	au	ɤi, ǫi	

Table 3.5: The Xong nasalized vowel system

The nasal and plain vowels form minimal pairs as illustrated in the following table.

Vowel Contrast	Examples
i – ĩ	mi <sup>454</sup> ‘meter classifier’      mĩ <sup>454</sup> ‘understand’
a – ǣ	ᵑpa <sup>14</sup> ‘pig’      ᵑpǣ <sup>454</sup> ‘think’
ɑ – ǻ	mɑ <sup>43</sup> ‘blister, boil’      mǻ <sup>43</sup> ‘insect’
o – ǫ	ᵑo <sup>454</sup> ‘fierce’      ᵑǫ <sup>454</sup> ‘silver’
ɤi – ǫi	mɤi <sup>43</sup> ‘coal’      mǫi <sup>43</sup> ‘human classifier’

Table 3.6: Plain and nasalized vowels in Xong

Two types of tone systems are attested. *Hmong*, *Ahmao*, and *Xong* exhibit six tones, of which, two further intersect with the phonation type of breathy voicing. In *Hmong*, the tones [2<sup>1</sup>] and [3<sup>3</sup>] contrast regularly breathy voicing versus non-breathy unvoicing. In *Ahmao*, it is the tones [2<sup>1</sup>] and [3<sup>3</sup>] whereas in *Xong*, it is the tones [2<sup>2</sup>] versus [4<sup>3</sup>]. The *Hmu* language does not use breathy voicing and has developed eight tones.

Hmong <sup>7</sup>	[ <sup>54</sup> ]	[ <sup>42</sup> ]	[ <sup>35</sup> ]	[ <sup>44</sup> ]	[ <sup>21</sup> ]	[ <sup>33</sup> ]
(China)	po <sup>54</sup> ‘feed’	po <sup>42</sup> ‘woman’	po <sup>35</sup> ‘full’	po <sup>44</sup> ‘width’	po <sup>21</sup> ‘see’ <sup>8</sup>	po <sup>33</sup> ‘conceal’ <sup>9</sup>
6 tones	tua <sup>54</sup> ‘thick’	tua <sup>42</sup> ‘come’	tua <sup>35</sup> ‘husk’	tua <sup>44</sup> ‘kill’	tua <sup>21</sup> ‘step on’	tua <sup>33</sup> ‘die’

<sup>7</sup> The data are quoted from Xióng and Cohen (2005: 12).

<sup>8</sup> The non-breathy unvoiced phonation type contrasts with the breathy voiced phonation type: po<sup>21</sup> ‘see’ versus pǫ<sup>21</sup> ‘thorn’.

<sup>9</sup> The non-breathy unvoiced phonation type contrasts with the breathy voiced phonation type: po<sup>33</sup> ‘conceal’ versus pǫ<sup>33</sup> ‘grandmother’.

<b>Hmu</b> <sup>10</sup>	[55]	[31]	[35]	[44]	[11]	[33]	[13]	[53]
(China)	ta <sup>55</sup> 'come'	ta <sup>31</sup> 'throw'	ta <sup>35</sup> 'long'	ta <sup>44</sup> 'roast'	ta <sup>11</sup> 'lose'	ta <sup>33</sup> 'earth'	ta <sup>13</sup> 'die'	ta <sup>53</sup> 'wing'
8 tones	ki <sup>55</sup> 'Instr.'	ki <sup>31</sup> 'ditch'	ki <sup>35</sup> 'kind'	ki <sup>44</sup> 'egg'	ki <sup>11</sup> 'dry'	ki <sup>33</sup> 'corner'	ki <sup>13</sup> 'reveal'	ki <sup>53</sup> 'a bit'

### 3.3.2 Lexicon

The Miao languages contain systems of classifiers and demonstratives that are unusual from a cross-linguistic perspective. More specifically, the classifier declinations of *Ahmao* inflecting each classifier in six forms are unparalleled. *Hmu* encodes the contrast of specific versus unspecific reference in a minimal pair of forms, more specifically bare classifiers vs. unspecific bare nouns. Furthermore, all Miao languages use one demonstrative reserved for marking the recognitional feature. *Ahmao* employs four demonstratives marking altitude, while *Hmong* uses three positional demonstratives, thereby indicating the position of an object relative to the speaker.

#### A. Fusional classifiers in Ahmao

*Ahmao*,<sup>11</sup> a Western Miao language spoken in Wēining county of Guìzhōu province, inflects each of its ca. 50 classifiers in six forms and contrasts with other isolating languages (including other Miao languages), wherein nominal classifiers are unique indeclinable morphemes. Each classifier encodes a threefold meaning: a size value (the classified is *augmentative*, *medial*, diminutive), a definiteness value (the classified is *definite*, *indefinite*), as well as a register value (the speaker is *male*, *female*, and *child*). The size parameter is seen to correlate with the gender and age of the speaker in the following manner. Men typically employ augmentative classifiers, whereas women use medial classifiers. Meanwhile, children make use of diminutive classifiers.

<sup>10</sup> The examples in this table have been quoted from Zhāng and Xǔ (1990).

<sup>11</sup> The earliest report of the Ahmao classifier system came from Wáng Fǔshì (1957) and the native Ahmao scholar Wáng Déguāng (1987). The data quoted in this section represent data originating from discussions between Wáng Déguāng and Matthias Gerner in 2005 shortly before the Ahmao teacher passed away. These data were then analyzed and published in Gerner and Bisang (2008, 2009, 2010).

## (i) Form

If CVT indicates the base form (and *augmentative*, *definite*, *male* being its base values), the classifier paradigm can be represented in the following manner.<sup>12</sup>

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	CVT	C*VT
Female	Medial	Cai <sup>55</sup>	C*ai <sup>213</sup>
Children	Diminutive	Ca <sup>53</sup>	C*a <sup>35</sup>

Table 3.7: Inflectional paradigm of Ahmao classifiers

It is possible to distinguish individual paradigms by understanding the manner in which indefinite forms are derived from their definite counterparts, for example, by voicing the initial consonant of the base form, by aspirating it, or by altering the tone.

(α) *Indefinites are formed by voicing*: A prominent exponent of this sound change is the plural and mass quantifier *ti*<sup>55</sup> that uses a voiceless stop for the definite and voiced stop [d] for the indefinite forms. The augmentative definite and augmentative indefinite forms are further differentiated by a change in tone [<sup>55</sup>] to [<sup>31</sup>].

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	ti <sup>55</sup>	di <sup>31</sup>
Female	Medial	tia <sup>55</sup>	dia <sup>213</sup>
Children	Diminutive	tia <sup>55</sup>	dia <sup>55</sup>

Table 3.8: Plural and mass classifier in Ahmao

Another example is the wide-spread animate classifier *tu*<sup>44</sup> with cognates in the majority of other Miao languages. This classifier also functions as classifier of tools in Ahmao.

<sup>12</sup> **C** means “consonant” (simple, double, affricated, etc.); **V** means “vowel” (simple, double); **T** means “tone”, using numbers 1-5 to indicate pitch contours; \* means “suprasegmental phenomenon” (e.g. aspiration), but possibly absence of sound change as well.

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	tu <sup>44</sup>	du <sup>31</sup>
Female	Medial	tai <sup>44</sup>	dai <sup>213</sup>
Children	Diminutive	ta <sup>44</sup>	da <sup>35</sup>

Table 3.9: Animate classifier in Ahmao

The classifier for weather droppings *ŋkey*<sup>53</sup> ‘shower’ voices the complex nasal-stop consonant in order to form the indefinite classifiers.

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	ŋkey <sup>53</sup>	ŋgey <sup>31</sup>
Female	Medial	ŋkai <sup>53</sup>	ŋgai <sup>213</sup>
Children	Diminutive	ŋkya <sup>53</sup>	ŋgeya <sup>35</sup>

Table 3.10: Classifier for weather droppings in Ahmao

(β) *Indefinites are formed by (de)aspiration*: The Ahmao classifier *dza*<sup>53</sup> for lengthy objects (mainly for streets) uses voiced aspiration of the initial consonant in order to derive the indefinite classifiers from the definite classifiers.

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	dza <sup>53</sup>	dʒha <sup>11</sup>
Female	Medial	dzai <sup>53</sup>	dʒhai <sup>213</sup>
Children	Diminutive	dʒa <sup>53</sup>	dʒha <sup>35</sup>

Table 3.11: Classifier for streets in Ahmao

The voiced aspiration process occurs only on the augmentative forms for the classifiers *bey*<sup>53</sup> ‘heap’ and *gau*<sup>53</sup> ‘block, group’, whereas the medial and diminutive forms remain unaspirated. Meanwhile the [u] vowel is preserved for the indefinite forms of *gau*<sup>53</sup>.

Speaker's Gender/Age	Size	Definite	Indefinite	Definite	Indefinite
Male	Augmentative	bey <sup>53</sup>	bhey <sup>11</sup>	gau <sup>53</sup>	ghau <sup>11</sup>
Female	Medial	bai <sup>53</sup>	bai <sup>213</sup>	gai <sup>53</sup>	guai <sup>213</sup>
Children	Diminutive	ba <sup>53</sup>	ba <sup>35</sup>	ga <sup>53</sup>	gua <sup>35</sup>

Table 3.12: Classifier ‘heap’ and classifier ‘block, group’ in Ahmao

Interestingly, an inverted process of de-aspiration is also attested in a number of examples. The classifier of granules (e.g. sugar, rice) *dlhi*<sup>35</sup> de-aspirates the initial consonant below.

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	dlhi <sup>35</sup>	dli <sup>44</sup>
Female	Medial	dlhai <sup>213</sup>	dliai <sup>213</sup>
Children	Diminutive	dlha <sup>35</sup>	dli <sup>35</sup>

Table 3.13: Classifier mainly for granulates in Ahmao

(y) *Indefinites are formed by tone changes*: The Another group of classifiers relies on tone changes to differentiate between definite and indefinite classifiers. These tone derivations are stable for the medial-indefinite [<sup>213</sup>] and the diminutive-indefinite forms [<sup>35</sup>]. The tones of the augmentative-indefinite form are unstable. The ubiquitous inanimate classifier *lu*<sup>55</sup> with cognates in other Miao languages derives the indefinite classifier by a change in tone [<sup>55</sup>] → [<sup>33</sup>].

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	lu <sup>55</sup>	lu <sup>33</sup>
Female	Medial	lai <sup>55</sup>	lai <sup>213</sup>
Children	Diminutive	la <sup>53</sup>	la <sup>35</sup>

Table 3.14: Inanimate classifier in Ahmao

A small number of classifiers with tone changes for augmentative forms add other phonation processes, such as labialization or palatalization, on medial and diminutive forms. The following two paradigms illustrate labialization or palatalization. However, the second process, namely, palatalization, has not yet fully developed.

Speaker's Gender/Age	Size	Definite	Indefinite	Definite	Indefinite
Male	Augmentative	zo <sup>53</sup>	zo <sup>31</sup>	ʃey <sup>55</sup>	ʃey <sup>44</sup>
Female	Medial	zuai <sup>55</sup>	zuai <sup>53</sup>	ʃ(e)yai <sup>55</sup>	ʃ(e)yai <sup>213</sup>
Children	Diminutive	zua <sup>53</sup>	zua <sup>35</sup>	ʃ(e)ya <sup>55</sup>	ʃ(e)ya <sup>35</sup>

Table 3.15: Classifier 'bridge' and classifier 'liter' in Ahmao

(δ) *Indefinites are formed by other changes*: Some classifiers exhibit atypical medial forms, albeit to a lesser extent atypical diminutive forms as well. One of these, the classifier *tey*<sup>11</sup> ‘clump’, is depicted below. The augmentative form does not distinguish between the meanings of definite and indefinite.

Speaker's Gender/Age	Size	Definite	Indefinite
Male	Augmentative	tey <sup>11</sup>	tey <sup>11</sup>
Female	Medial	tui <sup>11</sup>	tui <sup>213</sup>
Children	Diminutive	tya <sup>11</sup>	tya <sup>35</sup>

Table 3.16: Classifier ‘clump’ in Ahmao

(ii) Meaning and use

Each Ahmao classifier qualifies the size of the noun referent (*augmentative*, *medial*, *diminutive*), specifies its discourse prominence (*definite*, *indefinite*) and belongs to a social register (*male*, *female*, and *child*). In direct discourse, men typically choose a male register classifier, sometimes a female register classifier, and rarely a child register classifier. If they use a classifier of another register, they want to illuminate an inner mood or implicate some hidden meanings. Women typically employ female classifiers and sometimes a male register classifier in order to be provocative. Children generally utilize a classifier of their register but occasionally use a female classifier as well, though rarely a male classifier.

*Ahmao (Wēining County)*

- (1) a. 

lu <sup>55</sup>
CL.AUG.DEF

 ŋgħa<sup>35</sup>    ŋ<sub>i</sub><sup>55</sup>    zau<sup>44</sup>    ta<sup>55</sup>die<sup>31</sup>    ma<sup>11</sup>?

*Male speaker*: ‘The big house is very nice, isn’t it?’ [Neutral]

*Female speaker*: ‘The big house is very nice, isn’t it?’ [Audacious or boyish]

*Child speaker*: ‘The big house is very nice, isn’t it?’ [Odd]

- b. 

lai <sup>55</sup>
CL.MED.DEF

 ŋgħa<sup>35</sup>    ŋ<sub>i</sub><sup>55</sup>    zau<sup>44</sup>    ta<sup>55</sup>die<sup>31</sup>    ma<sup>11</sup>?

*Male speaker*: ‘The house is very nice, isn’t it?’ [Modest]

*Female speaker*: ‘The house is very nice, isn’t it?’ [Neutral]

*Child speaker*: ‘The (big) house is very nice, isn’t it?’ [Neutral]

- c. 

la <sup>53</sup>
CL.DIM.DEF

 ηgfa<sup>35</sup>    ηj<sup>55</sup>    zau<sup>44</sup>    ta<sup>55</sup>die<sup>31</sup>    ma<sup>11</sup>?  
house    DEM.PROX    good    very    SOL

*Male speaker:* 'The small house is very nice, isn't it?' [Imitating children]

*Female speaker:* 'The small house is very nice, isn't it?' [Neutral]

*Child speaker:* 'The (small) house is very nice, isn't it?' [Neutral]

The same size-related meanings and pragmatic nuances also hold for the subset of indefinite classifier forms. In the following three examples presented below, indefinite classifiers of animacy occur in a transitive existential construction.

- (2) a. ηhi<sup>11</sup>    mfa<sup>35</sup>

du <sup>31</sup>
CL.AUG.INDEF

    zau<sup>44</sup>    ηhu<sup>35</sup>.  
3.SG    have    good    ox.

*Male speaker:* 'He has a nice big ox.' [Neutral]

*Female speaker:* 'He has a nice big ox.' [Audacious or boyish]

*Child speaker:* 'He has a nice big ox.' [Odd]

- b. ηhi<sup>11</sup>    mfa<sup>35</sup>

dai <sup>213</sup>
CL.MED.INDEF

    zau<sup>44</sup>    ηhu<sup>35</sup>.  
3.SG    have    good    ox.

*Male speaker:* 'He has a nice big ox.' [Modest]

*Female speaker:* 'He has a nice big ox.' [Neutral]

*Child speaker:* 'He has a nice (big) ox.' [Neutral]

- c. ηhi<sup>11</sup>    mfa<sup>35</sup>

da <sup>35</sup>
CL.DIM.INDEF

    zau<sup>44</sup>    ηhu<sup>35</sup>.  
3.SG    have    good    ox.

*Male speaker:* 'He has a nice big ox.' [Imitating children]

*Female speaker:* 'He has a nice big ox.' [Neutral]

*Child speaker:* 'He has a nice (little) ox.' [Neutral]

### (iii) Grammaticalization of classifiers

Special forces of change have brought this system to the fore. The single-morpheme classifiers were initially divided into three size classifiers. At a later stage, they were further split into three definite and three indefinite classifiers.

(α) *Size split:* Ahmao synchronically involves two nominal prefixes, an augmentative, and a diminutive prefix. The augmentative prefix is related to the term 'mother', and the diminutive prefix to the term 'child'.

Lexical Origin	Derived Prefix
nie <sup>53</sup> ‘mother’	a <sup>55</sup> nie <sup>53</sup> (Augmentative)
ŋa <sup>55</sup> zau <sup>11</sup> ‘child’	ŋa <sup>11</sup> (Diminutive)

Table 3.17: Size prefixes in Ahmao

In Ahmao, the augmentative string a<sup>55</sup>nie<sup>53</sup> can be prefixed to animal nouns, thereby indicating the female gender of animals (though not used for people). Furthermore, it may be prefixed to inanimate nouns in order to infer a sense of largeness, either physically or metaphorically. The diminutive prefix ŋa<sup>11</sup> combines with the same range of nouns as a<sup>55</sup>nie<sup>53</sup> and denotes the young animal of adult-young animal pairs. Moreover, with inanimate nouns, it refers to a diminutive version of the noun. Both prefixes have been contrasted in the following chart.

Noun	Augmentative prefix a <sup>55</sup> nie <sup>53</sup>	Diminutive prefix ŋa <sup>11</sup>
ŋhu <sup>35</sup> ‘ox, bull’	a <sup>55</sup> nie <sup>53</sup> ŋhu <sup>35</sup> ‘cow’	ŋa <sup>11</sup> ŋhu <sup>35</sup> ‘calf’
nŋw <sup>11</sup> ‘horse, stallion’	a <sup>55</sup> nie <sup>53</sup> nŋw <sup>11</sup> ‘mare’	ŋa <sup>11</sup> nŋw <sup>11</sup> ‘colt, foal’
zŋaw <sup>35</sup> ‘sheep, ram’	a <sup>55</sup> nie <sup>53</sup> zŋaw <sup>35</sup> ‘ewe’	ŋa <sup>11</sup> zŋaw <sup>35</sup> ‘lamb’
mpa <sup>44</sup> ‘pig, hog, boar’	a <sup>55</sup> nie <sup>53</sup> mpa <sup>44</sup> ‘sow’	ŋa <sup>11</sup> mpa <sup>44</sup> ‘piglet’
tli <sup>55</sup> ‘dog’	a <sup>55</sup> nie <sup>53</sup> tli <sup>55</sup> ‘bitch’	ŋa <sup>11</sup> tli <sup>55</sup> ‘puppy’
a <sup>55</sup> tshu <sup>11</sup> ‘cat, tomcat’	a <sup>55</sup> nie <sup>53</sup> a <sup>55</sup> tshu <sup>11</sup> ‘queen’	ŋa <sup>11</sup> a <sup>55</sup> tshu <sup>11</sup> ‘kitten’
qai <sup>55</sup> ‘chicken, cock’	a <sup>55</sup> nie <sup>53</sup> qai <sup>55</sup> ‘hen’	ŋa <sup>11</sup> qai <sup>55</sup> ‘chick’
o <sup>11</sup> ‘duck, drake’	a <sup>55</sup> nie <sup>53</sup> o <sup>11</sup> ‘(female) duck’	ŋa <sup>11</sup> o <sup>11</sup> ‘duckling’
ŋhu <sup>11</sup> ‘goose, gander’	a <sup>55</sup> nie <sup>53</sup> ŋhu <sup>11</sup> ‘(female) goose’	ŋa <sup>11</sup> ŋhu <sup>11</sup> ‘gosling’
tlai <sup>11</sup> ‘bear, boar’	a <sup>55</sup> nie <sup>53</sup> tlai <sup>11</sup> ‘she-bear, sow’	ŋa <sup>11</sup> tlai <sup>11</sup> ‘small bear, cub’
fu <sup>44</sup> ‘wolf, dog’	a <sup>55</sup> nie <sup>53</sup> fu <sup>44</sup> ‘she-wolf, bitch’	ŋa <sup>11</sup> fu <sup>44</sup> ‘wolf puppy’
nau <sup>31</sup> ‘bird, cock’	a <sup>55</sup> nie <sup>53</sup> nau <sup>31</sup> ‘female bird, hen’	ŋa <sup>11</sup> nau <sup>31</sup> ‘bird poultry, chick’

Table 3.18: The scope of the two Ahmao prefixes

Noun	Augmentative prefix <b>a<sup>55</sup>nie<sup>53</sup></b>	Diminutive prefix <b>ŋa<sup>11</sup></b>
li <sup>44</sup> fau <sup>44</sup> 'head'	<b>a<sup>55</sup>nie<sup>53</sup>li<sup>44</sup>fau<sup>44</sup></b> 'big leader'	<b>ŋa<sup>11</sup>li<sup>44</sup>fau<sup>44</sup></b> 'sub-leader'
tey <sup>44</sup> 'foot'	<b>a<sup>55</sup>nie<sup>53</sup>tey<sup>44</sup></b> 'big toe'	<b>ŋa<sup>11</sup>tey<sup>44</sup></b> 'little toe'
dhi <sup>11</sup> 'hand'	<b>a<sup>55</sup>nie<sup>53</sup>dhi<sup>11</sup></b> 'thumb'	<b>ŋa<sup>11</sup>dhi<sup>11</sup></b> 'pinkie, little finger'
ŋgha <sup>35</sup> 'house'	<b>a<sup>55</sup>nie<sup>53</sup>ŋgha<sup>35</sup></b> 'big house'	<b>ŋa<sup>11</sup>ŋgha<sup>35</sup></b> 'cottage, small house'
a <sup>11</sup> dhu <sup>11</sup> 'wall'	<b>a<sup>55</sup>nie<sup>53</sup>a<sup>11</sup>dhu<sup>11</sup></b> 'broad wall'	<b>ŋa<sup>11</sup>a<sup>11</sup>dhu<sup>11</sup></b> 'small wall'
tca <sup>44</sup> 'wind'	<b>a<sup>55</sup>nie<sup>53</sup>tca<sup>44</sup></b> 'storm'	<b>ŋa<sup>11</sup>tca<sup>44</sup></b> 'breeze of wind'
nau <sup>53</sup> 'rain'	<b>a<sup>55</sup>nie<sup>53</sup>nau<sup>53</sup></b> 'heavy rain'	<b>ŋa<sup>11</sup>nau<sup>53</sup></b> 'drizzle'
tau <sup>55</sup> 'mountain'	<b>a<sup>55</sup>nie<sup>53</sup>tau<sup>55</sup></b> 'big mountain'	<b>ŋa<sup>11</sup>tau<sup>55</sup></b> 'hill'
dlhi <sup>35</sup> 'river'	<b>a<sup>55</sup>nie<sup>53</sup>dlhi<sup>35</sup></b> 'big river'	<b>ŋa<sup>11</sup>dlhi<sup>35</sup></b> 'brook'
tei <sup>55</sup> 'road'	<b>a<sup>55</sup>nie<sup>53</sup>tei<sup>55</sup></b> 'esplanade'	<b>ŋa<sup>11</sup>tei<sup>55</sup></b> 'alley'
au <sup>55</sup> 'water'	<b>a<sup>55</sup>nie<sup>53</sup>au<sup>55</sup></b> 'big stream'	<b>ŋa<sup>11</sup>au<sup>55</sup></b> 'runnel'
dzhi <sup>11</sup> 'street'	<b>a<sup>55</sup>nie<sup>53</sup>dzhi<sup>11</sup></b> 'big street market'	<b>ŋa<sup>11</sup>dzhi<sup>11</sup></b> 'small market'
zho <sup>11</sup> 'village'	<b>a<sup>55</sup>nie<sup>53</sup>zho<sup>11</sup></b> 'big village'	<b>ŋa<sup>11</sup>zho<sup>11</sup></b> 'small village'

Table 3.18: The scope of the two Ahmao prefixes (continued)

In Ahmao noun phrases, a process of metanalysis (Campbell 1998: 103; Trask, 1996: 103) regrouped the size prefixes with the classifiers. Instead of viewing the size morphemes as prefixes of the noun, native speakers regarded them as suffixes of the classifier. This shift is illustrated in (3) and (4).

- (3) a. 

<b>tu<sup>44</sup></b>	<b>a<sup>55</sup>nie<sup>53</sup>-</b>	<b>tli<sup>55</sup></b>
CL	AUG	dog

 → b. 

<b>tu<sup>44</sup></b>	<b>-a<sup>55</sup>nie<sup>53</sup></b>	<b>tli<sup>55</sup></b>
CL	AUG	dog

  
'the bitch'
- (4) a. 

<b>tu<sup>44</sup></b>	<b>ŋa<sup>11</sup>-</b>	<b>tli<sup>55</sup></b>
CL	DIM	dog

 → b. 

<b>tu<sup>44</sup></b>	<b>-ŋa<sup>11</sup></b>	<b>tli<sup>55</sup></b>
CL	DIM	dog

  
'the puppy'

The re-analyzed prefixed quickly merged with the classifiers by undergoing a process of aphaeresis (loss of an initial segment), syncope (loss of a medial segment), as well as apocope (loss of a final segment), see Campbell (1998: 31) and Trask (1996: 68). To illustrate, the animate classifier *tu<sup>44</sup>* developed secondary forms *tai<sup>44</sup>* and *ta<sup>44</sup>*.

Prefix	Phase 1	Sound Change	Phase 2	Sound Change	Phase 3
Augmentative	C*V*+a <sup>55</sup> nie <sup>53</sup>	→ Syncope & Apocope →	C*V*+ai	→ Apocope →	C*ai
Diminutive	C*V*+ŋa <sup>11</sup>	→ Aphaeresis →	C*V*+a	→ Apocope →	C*a

Table 3.19: Merger of the size prefixes

The [ai]-versions of the classifiers that categorize animal nouns prefixed by *a<sup>55</sup>nie<sup>53</sup>* were reinterpreted as female gender classifiers. The [ai]-forms of classifiers categorizing inanimate nouns were re-analyzed as augmentative size classifiers. Somewhat similarly, the [a]-forms which were reinterpreted as ‘offspring’ classifiers when categorizing animal nouns prefixed by *ŋa<sup>11</sup>*. The merged classifiers acquired additional pragmatic senses. The [ai]- and [a]-forms initially encoded the gender/age of *noun referents*, but subsequently shifted them to marking the gender/age of the *speaker*. The [ai]-classifiers index female speakers and [a]-classifiers child speakers.

(β) *Definite/indefinite split*: Numeral constructions in which indefinite classifiers are adjacent to numerals are the initial environment for the definite/indefinite drift. The definite/indefinite split surfaced through morphological reanalysis of the glottal suffix [ʔ] in the numeral \*iʔ ‘one.’ Within this process, the glottal stop [ʔ] was viewed as part of the following classifier with which it underwent sound changes.

The high tone of the numeral *one* imposes a sandhi tone on the classifier either [33] or [31] in most cases.<sup>13</sup> For some of the ca. 50 classifiers, the sound changes ceased at this point. The sandhi tone classifiers were reinterpreted as indefinite classifiers. The sound changes went further for other classifiers. In *Ahmao* (Johnson, 1999) and *Green Hmong* (Andruski and Ratliff 2000), sandhi tone and phonation type have a close relationship (which is also attested in the *Ahmao* data). In *numeral-classifier* compounds, \*i ‘one’ not only imposed sandhi tones on the classifier, but also transferred its phonation type to the classifier. Classifiers with voiceless initial consonant had its phonation switch to voicing, and classifiers with voiced initial consonant changed its phonation to breathy

<sup>13</sup> See Wáng Fǔshì (1957), Wáng Fǔshì and Wáng Déguāng (1986) and especially Gerner and Bisang (2010).



nouns feature definite, indefinite or generic reference depending on the slot in which they occur. Examples (8)-(9) illustrate the range of functions that bare classifiers and bare nouns are able to express. Bare classifiers have been exemplified in (8), bare nouns in (9). Ambiguous interpretations can be clarified by way of contextual information.

(8) *Kam*<sup>15</sup> (indefinite BCL)

- a. yaoc semh 

mungx
-------

 nyenc.  
1.SG look for 

BCL
-----

 person  
'I am looking for someone (specific/unspecific).'

*Ahmao*<sup>16</sup> (definite BCL)

- b. nɔ̄au<sup>31</sup>ɬə<sup>55</sup>nau<sup>55</sup> dzho<sup>35</sup>

tu <sup>44</sup>
------------------

 mpa<sup>33</sup>zau<sup>55</sup>  
Daushenau follow 

BCL
-----

 wild boar  
'Daushenau followed the wild boar.'

(9) *Mandarin Chinese* (indefinite/definite/generic BN)

- a. tā hē 

jiǔ.
------

  
3.SG drink 

BN:wine
---------

  
'He drinks wine (indefinite/generic).'
- b. tā bǎ 

jiǔ
-----

 màn-màn- de hē diao.  
3.SG COV 

BN:wine
---------

 slowly-ADVL drink  
'He drinks [his] wine slowly (definite).'

Dedicated markers of un/specificity are cross-linguistically rare. More common are forms encoding the notion of (un)specificity in conjunction with other grammatical concepts. *Turkish*,<sup>17</sup> for example, exhibits differential object marking triggered by specific noun phrases. Similarly, *Hindi*<sup>18</sup> uses two object markers, one of them on animate and specific noun phrases. The Turkish and Hindi

<sup>15</sup> *Kam* is a Tai-Kadai language spoken by about one million people in China. Example (8a) is sourced from the fieldwork of Matthias Gerner.

<sup>16</sup> *Ahmao* is a Miao-Yao language used by 350,000 speakers in Wēining county of Guizhōu province in China. Example (8b) is quoted from Gerner and Bisang (2008).

<sup>17</sup> See Enç (1991).

<sup>18</sup> See Mohanan (1994: 104).

markers of specificity are case markers in the first place, and not determiners. *Hmu*, by contrast, employs primary markers of specificity and the lack thereof. *Hmu* is typologically rare, even among the Miao-Yao languages, in encoding specific versus unspecific reference by employing a minimal pair of forms. Bare classifiers mark specific reference, while bare nouns unspecific reference. Example (10a) illustrates the bare classifier. The speaker is confined in a room and hears the barking of exactly one dog outside the house. He cannot see the dog and may or may not be familiar with it. The setting of (10b) is the same as in (10a) barring the number of dogs. The use of the bare noun entails the presence of at least two barking dogs.

- (10) *Hmu*
- a. 

<b>dail</b>	<b>dlad</b>
BCL	dog

 jub    naix    wat.  
bark at    people    very  
'A/the dog is barking.' (Specific meaning)
- b. 

<b>dlad</b>
BN:dog

 jub    naix    wat.  
bark at    people    very  
'Dogs are barking.' (Unspecific meaning)

In the following subsections, we illustrate that *Hmu* bare classifiers and bare nouns have specific and unspecific reference, respectively and that bare nouns may further exhibit *generic*, *universal* and *distributive* reference, depending on the syntactic construction and discourse context.

A noun phrase has *generic* reference if and only if (iff) almost all elements in its discourse extension have the noun phrase property. A noun phrase has *universal* reference iff all elements in its discourse extension have the noun phrase property. A noun phrase in the scope of an intensional predicate has *distributive* reference iff its discourse extension is the Cartesian product of the sets of referents indexed by suitable possible worlds.

## (ii) Unique Entities

Entities with unique existence do have *specific* reference not only in a discourse, but also in the physical world at large. Any form that imposes an unspecific interpretation on that entity results in an ungrammatical expression. In (11a), the

unspecific reading for the bare noun *ghab dab* ‘Earth’ is ungrammatical in *Hmu*. The classifier *laib* must be used to indicate specific reference, as in (11b).

- (11) a. \*sangs lul id ax maix dailxid hsent hot **ghab dab** dios dlenx hul.  
 ancient time DEM NEG have who believe say **earth** COP round EXCL  
*Intended meaning:* ‘In ancient times, nobody believed that Earths are round.’
- b. sangs lul id ax maix dailxid hsent hot **laib ghab dab** dios dlenx hul.  
 ancient time DEM NEG have who believe say **BCL earth** COP round EXCL  
 ‘In ancient times, nobody believed that the Earth is round.’

The interpretation of a singleton extension *is* semantically encoded in the classifier and the sense of a non-singleton extension *is* part of the bare noun. The meaning of non-singleton extension cannot be cancelled, as shown in (11). Furthermore, bare nouns cannot be employed when the context imposes a singleton interpretation. If it is known that only one wedding took place, as seen in (12), it can be inferred that we must use the classifier. The omission of the classifier entails the presence of at least two weddings.

- (12) a. \* maix **dangx-ngix-jud-yangl-niangb** niangb Ghab Det Dlenx.  
 have **table-meat-wine-lead-wife** at Gadedlen (village)  
*Intended meaning:* ‘There is a wedding in Gadedlen.’
- b. maix **laib dangx-ngix-jud-yangl-niangb** niangb Ghab Det Dlenx.  
 have **BCL table-meat-wine-lead-wife** at Gadedlen (village)  
 ‘There is the wedding in Gadedlen.’

### (iii) Possessives

Possessives or partitives denote the association of entities with another entity. Classifiers are required for singleton possessives, as seen in (13)-(14), and possessives that exist in pairs, as evidenced in (15). Meanwhile bare nouns are ungrammatical in both cases.

- (13) a. \* ghet ghab niangx b. ghet **laib** ghab niangx  
 grandfather age grandfather CL age  
 ‘Grandfather’s age’ ‘Grandfather’s age’

- (14) a. \* bib     jid  
           1.PL    body  
           ‘some of our bodies’
- b. bib     **jox**     jid  
       1.PL    CL        body  
       ‘our body’
- (15) a. \* wil     hniongs mais  
           1.SG    eye  
           ‘some of my eyes’
- b. wil     **jil**     hniongs mais  
       1.SG    CL     eye  
       ‘my eye’

Unique kinship relations are always specific and necessitate classifiers, whereas alienable human relationships have unique or anti-unique interpretations depending on the use of classifiers or bare nouns.

- (16) a. \* wil     bad  
           1.SG    father  
           ‘\*fathers of mine’ (anti-unique)
- b. wil     **zaid**    bad  
       1.SG    CL     father  
       ‘my father’ (unique)
- (17) a. wil     ghab bul  
           1.SG    friend  
           ‘some friends of mine’ (anti-unique)
- b. wil     **dail**    ghab bul  
       1.SG    CL     friend  
       ‘my friend’ (unique)

The set of entities associated with something can be singleton (‘the age of a student’), dual (‘a leg of a student’), paucal (‘a corner of an intersection’), or multiple (‘a student of Oxford University’). Barker (2004) coined the term ‘weak definites’ for paucal sets of associated things. When used with the English definite article *the*, weak definites indicate unique existence, not because the speaker is familiar with the referent, but because unique identification is guaranteed due to the small number of associated things. For the weak definite in (18a), the speaker does not have any particular corner in mind but promises easy identification; for the ordinary definite in (18b), he has one particular in mind.

- (18) a. I hope the cafe is located on **the** corner **of** a busy intersection.<sup>19</sup>  
       b. I hope the cafe is located on **the** corner **near** a busy intersection.<sup>20</sup>

---

<sup>19</sup> See Barker (2004: 89-90).

<sup>20</sup> See Barker (2004: 89-90).



- (22) a. Dol jib daib vangs **dail** **xangs dud.**  
 CL child look for CL teacher  
 ‘The children look for a certain teacher.’ (Unique)
- b. Dol jib daib vangs **xangs dud.**  
 CL child look for teacher
- i. ‘The children look for (at least two) teachers.’ (Anti-unique)  
 ii. ‘The children look each for a (different) teacher.’ (Distributive)

Bare mass nouns have an anti-unique reference. Mass terms talk about masses as though they are divisible:<sup>22</sup> “any part of something that is water is water”. Since bare mass nouns are divisible, they have anti-unique and as a result, unspecific reference. For example, any amount of wine that someone drinks can be divided into parts for which the sentence (23a) can be truthfully uttered. The mass classifier in (23b), on the other hand, denotes a contextually unique, and thus specific, amount of wine.

- (23) a. nenx hek **jud.**  
 3.SG drink wine  
 ‘He is drinking wine.’ (Anti-unique)
- b. nenx hek **dol jud.**  
 3.SG drink CL wine  
 ‘He is drinking the (or a certain amount of) wine.’ (Unique)

#### (v) Negation

For native *Hmu* speakers, it is the classifier that has always scope over the negator, not the other way round. Example (24) illustrates classifiers in subject and (25) in object position.

- (24) **dail ghet lul** ax yangl bib mongl.  
 CL old man NEG lead way 1.PL go  
 i. ‘The old man did not lead us the way.’ (∃!¬)  
 ii. \*‘It is not the case that there is one old man who leads us the way.’ (¬∃!)

<sup>22</sup> See Bunt (1985: 45; 1979: 255).

- (25)    *nenx ax bangd dail lid vud diot bib.*  
          3.SG NEG shoot CL sheep COV.to 1.PL  
 i.    'He didn't shoot the sheep for us.' (∃!¬)  
 ii.   \*'It is not the case that there is one sheep that he shot for us.' (¬∃!)

In the scope of the negator, *Hmu* bare nouns have anti-unique reference and can implicate generic but not universal reference. Bare nouns are illustrated in subject (26) and in object position (27).

- (26)    **jib daib** ax hek dol yenb.  
          child NEG smoke CL tobacco  
 i.    '(At least two) children are not smoking.' (Anti-unique)  
 ii.   'Children don't smoke.' (Generic: True even if there is one child who smokes.)
- (27)    wil ax heib hab.  
          1.SG NEG weave strawshoe  
 i.    'I have not weaved strawshoes.' (Anti-unique)  
 ii.   'I do not weave strawshoes.' (Generic: True, even if I've weaved one strawshoe.)

#### (vi) Matrix Clauses

In *Hmu*, bare classifiers that can be found in complement clauses trigger *de re* construals<sup>23</sup> of their sense of unique existence, whereas bare nouns only allow *de dicto* construals.<sup>24</sup> Their referents are potentially distributed over different possible worlds. Bare nouns are markers of the unspecific distributive type.

(28a) reports a *de dicto* belief about the speaker's potential purchase of jade stones. The bare noun *jade stone* is distributive with referents in different belief-

<sup>23</sup> A *de re* construal of a noun phrase in the scope of an intensional predicate is a referent that exists outside the particular context of the predicate. A *de re* construal can be represented by the formula  $\exists!y \Box \varphi(y)$  where  $\Box$  represents the intensional predicate.

<sup>24</sup> A *de dicto* construal of a noun phrase in the scope of an intensional predicate is a referent that exists only inside the particular context of the predicate. A *de dicto* construal can be represented by the formula  $\Box \exists y \varphi(y)$  where  $\Box$  represents an intensional predicate.



- b. mongx zaid bad jeb hvib  
 2.SG CL father hope  
 hot mongx zaid mais yis **dail daib dial.**  
 say 2.SG CL mother give birth to CL son

'Your father hoped that your mother would give birth to a certain boy (= you).'  
 (Unique)

### C. Classifiers in the Miao Group

In this section, we document the most important classifiers in four representative languages of the Miao group. The classifiers are cognate for the most part, but do differ in the range of classified nouns.

Classifiers	Hmong <sup>25</sup>	Ahmao <sup>26</sup>			Hmu <sup>27</sup>	Xong <sup>28</sup>
			Definite	Indefinite		
Animate (also for tools)	to <sup>21</sup>	Augmentative	tu <sup>44</sup>	du <sup>31</sup>	tɛ <sup>11</sup>	(tu <sup>42</sup> ) <sup>29</sup>
		Medial	tai <sup>44</sup>	dai <sup>213</sup>		
		Diminutive	ta <sup>44</sup>	da <sup>35</sup>		
Animate	---	Augmentative	---	---	---	ŋoŋ <sup>22</sup>
		Medial	---	---		
		Diminutive	---	---		

<sup>25</sup> The classifier data in *Hmong*, a Western Miao language spoken in Hékǒu 河口 county, were collected by Matthias Gerner in 2007.

<sup>26</sup> The *Ahmao* data (Wēining 威宁 county) were recorded in discussions between Wáng Déguāng and Matthias Gerner in 2005 and published in Gerner and Bisang (2008, 2009, 2010).

<sup>27</sup> The Central Miao language *Hmu* has about 1,400,000 speakers in Southeast Guizhōu 贵州. The data in this section were collected by Matthias Gerner during 2003-2007 and published in Gerner and Bisang (2010).

<sup>28</sup> *Xong* is an Eastern Miao language spoken by 900,000 people in Húnán province. The data originate from Huāyuán 花垣 county were collected by Matthias Gerner during 2007 and published in Gerner and Bisang (2010).

<sup>29</sup> The form *tu*<sup>42</sup> is restricted to a few inanimate instruments (e.g. 'plough'), whereas the general animate classifier is ŋoŋ<sup>22</sup>. In addition, there is a prefix *ta*<sup>33</sup> that is attached to most animal nouns only dropped in numeral constructions. This prefix is a former classifier that has been lexicalized and replaced by the classifier ŋoŋ<sup>22</sup>.

Classifiers	Hmong	Ahmao			Hmu	Xong
Human	lən <sup>42</sup>	Augmentative	Definite lu <sup>55</sup>	Indefinite lu <sup>44</sup>	le <sup>55</sup>	le <sup>35</sup>
		Medial	lai <sup>55</sup>	lai <sup>213</sup>		
		Diminutive	la <sup>53</sup>	la <sup>35</sup>		
Male	---	Augmentative	(tsi <sup>55</sup> ) <sup>30</sup>	lu <sup>44</sup>	---	---
		Medial	tsai <sup>55</sup>	lai <sup>213</sup>		
		Diminutive	tša <sup>53</sup>	la <sup>35</sup>		
Natural Pairs (body parts, clothing)	tshai <sup>33</sup>	Augmentative	tshai <sup>11</sup>	tshai <sup>11</sup>	---	dzha <sup>44</sup>
		Medial	tshai <sup>11</sup>	tshai <sup>213</sup>		
		Diminutive	tsha <sup>11</sup>	tshai <sup>35</sup>		
Natural Pairs (body parts, clothing)	---	Augmentative	(dzi <sup>53</sup> ) <sup>31</sup>	dzi <sup>31</sup>	tçi <sup>11</sup>	---
		Medial	dzai <sup>53</sup>	dzai <sup>213</sup>		
		Diminutive	dza <sup>53</sup>	dza <sup>35</sup>		
Plants	---	Augmentative	fau <sup>55</sup>	fau <sup>44</sup>	fhu <sup>35</sup>	---
		Medial	fai <sup>55</sup>	fai <sup>213</sup>		
		Diminutive	fa <sup>53</sup>	fa <sup>35</sup>		
Plants	tšau <sup>43</sup>	Augmentative	---	---	---	tšou <sup>35</sup>
		Medial	---	---		
		Diminutive	---	---		
Plants	---	Augmentative	---	---	kəu <sup>35</sup>	ko <sup>44</sup>
		Medial	---	---		
		Diminutive	---	---		
Flowers <sup>32</sup>	tou <sup>55</sup>	Augmentative	tə <sup>55</sup>	tə <sup>44</sup>	---	tu <sup>44</sup>
		Medial	təi <sup>55</sup>	təi <sup>213</sup>		
		Diminutive	təa <sup>53</sup>	təa <sup>35</sup>		
Lengthy Objects (grass, hair)	tso <sup>31</sup>	Augmentative	tso <sup>11</sup>	tso <sup>31</sup>	---	---
		Medial	tsui <sup>44</sup>	tsui <sup>53</sup>		
		Diminutive	tsua <sup>44</sup>	tsua <sup>35</sup>		

<sup>30</sup> *Wëining Ahmao* involves the classifier *tsi*<sup>55</sup> solely for 'man', which is only declined in singular-definite forms and switches to *lu*<sup>44</sup> for all other forms.

<sup>31</sup> In *Ahmao*, two classifiers for natural pairs exist to exhibit two different origins. The Ahmao classifier *dzi*<sup>53</sup> is in retreat with a few classified left.

<sup>32</sup> The classifier *tou*<sup>55</sup>/*tə*<sup>55</sup> is attested in *Hmong (Hékou)* and *Ahmao (Wëining)* and is borrowed from the Chinese classifiers *duǒ* 朵 for clouds and flowers, implying that this classifier was borrowed early in Proto-Miao.

Classifiers	Hmong		Ahmao		Hmu	Xong
Lengthy Objects (river, road)	---		Definite	Indefinite	tɕo <sup>55</sup>	---
		Augmentative	dza <sup>53</sup>	dʒha <sup>11</sup>		
		Medial	dʒai <sup>53</sup>	dʒha <sup>213</sup>		
Inanimate (general classifier)	lo <sup>43</sup>		Augmentative	lu <sup>55</sup>	le <sup>33</sup>	le <sup>35</sup>
		Medial	lai <sup>55</sup>	lai <sup>213</sup>		
		Diminutive	la <sup>53</sup>	la <sup>35</sup>		
Metals (‘lump’)	tho <sup>31</sup>		Augmentative	thau <sup>11</sup>	tho <sup>13</sup>	dloŋ <sup>35</sup>
		Medial	thai <sup>11</sup>	thai <sup>213</sup>		
		Diminutive	tha <sup>11</sup>	tha <sup>35</sup>		
Tools (with handle)	taŋ <sup>43</sup>		Augmentative	---	tiaŋ <sup>33</sup>	tən <sup>35</sup>
		Medial	---	---		
		Diminutive	---	---		
Solid Masses <sup>33</sup> (‘pound’)	ki <sup>44</sup>		Augmentative	ki <sup>44</sup>	(ki <sup>35</sup> ) <sup>34</sup>	tɕi <sup>42</sup>
		Medial	kiai <sup>11</sup>	kiai <sup>13</sup>		
		Diminutive	kia <sup>11</sup>	kia <sup>35</sup>		
Versatile <sup>35</sup> (‘piece’)	tʰai <sup>24</sup>		Augmentative	dla <sup>53</sup>	fei <sup>31</sup>	lei <sup>42</sup>
		Medial	dlai <sup>55</sup>	dlai <sup>213</sup>		
		Diminutive	dla <sup>53</sup>	dla <sup>35</sup>		
Landscape <sup>36</sup> (‘row’, ‘plot’, ‘piece’)	plaŋ <sup>13</sup>		Augmentative	tlau <sup>55</sup>	tcaŋ <sup>35</sup>	(tcaŋ <sup>35</sup> ) <sup>37</sup>
		Medial	tlai <sup>55</sup>	tlai <sup>213</sup>		
		Diminutive	tla <sup>55</sup>	tla <sup>35</sup>		

<sup>33</sup> The classifier for solid masses conveys two meanings: ‘pound’ (500 gram), and ‘lump’. Both meanings are attested in Ahmao, whereas only the second meaning is available in *Hmong* and *Xong*.

<sup>34</sup> The cognate classifier in *Hmu*, *ki*<sup>35</sup>, has a different meaning (‘kind of’) and categorizes a broad range of nouns.

<sup>35</sup> This classifier means ‘piece’ and categorizes a wide range of objects, such as solid materials, land, documents, etc.

<sup>36</sup> This classifier for landscape means ‘piece’, ‘plot’ or ‘row’ and categorizes flat land, mountain chains and crops (with the connotation of ‘a plot of crops’).

<sup>37</sup> The *Xong* classifier *tcaŋ*<sup>35</sup> has shifted to categorize solid materials and to imply ‘lump’, ‘chunk’, rather than to become classifier for landscape.

Classifiers	Hmong		Ahmao		Hmu	Xong	
Landscape (‘side’, ‘edge’)	ɕaŋ <sup>13</sup>		Definite	Indefinite	(saŋ <sup>55</sup> ) <sup>38</sup>	---	
		Augmentative	ɕey <sup>55</sup>	ɕey <sup>44</sup>			
		Medial	ɕyai <sup>55</sup>	ɕyai <sup>213</sup>			
		Diminutive	ɕya <sup>53</sup>	ɕya <sup>35</sup>			
Places	qhaʊ <sup>55</sup>		Augmentative	qho <sup>55</sup>	qho <sup>44</sup>	(qha <sup>44</sup> ) <sup>39</sup>	(qho <sup>35</sup> ) <sup>40</sup>
		Medial	qhai <sup>55</sup>	qhai <sup>213</sup>			
		Diminutive	qha <sup>55</sup>	qha <sup>35</sup>			
Clothes & Cloth	phaʊ <sup>43</sup>		Augmentative	pho <sup>55</sup>	pho <sup>11</sup>	phaŋ <sup>33</sup>	phaŋ <sup>35</sup>
		Medial	phai <sup>55</sup>	phai <sup>213</sup>			
		Diminutive	pha <sup>35</sup>	pha <sup>35</sup>			
Plural & Masses	tɛ <sup>31</sup>		Augmentative	ti <sup>55</sup>	di <sup>31</sup>	to <sup>11</sup>	---
		Medial	tiai <sup>55</sup>	diai <sup>213</sup>			
		Diminutive	tia <sup>55</sup>	dia <sup>55</sup>			
Collections (‘bunch’)	tsha <sup>44</sup>		Augmentative	ntɕha <sup>11</sup>	ntɕha <sup>11</sup>	---	ndzha <sup>54</sup>
		Medial	ntɕhai <sup>11</sup>	ntɕhai <sup>213</sup>			
		Diminutive	ntɕha <sup>11</sup>	ntɕha <sup>35</sup>			
Collections (‘heap’, ‘row’)	peu <sup>13</sup>		Augmentative	bey <sup>53</sup>	bhey <sup>11</sup>	pə <sup>44</sup>	plu <sup>55</sup>
		Medial	bai <sup>53</sup>	bai <sup>213</sup>			
		Diminutive	ba <sup>53</sup>	ba <sup>35</sup>			
Liquids <sup>41</sup> (litre)	ɕən <sup>44</sup>		Augmentative	ɕə <sup>55</sup>	ɕə <sup>44</sup>	ɕən <sup>33</sup>	ɕən <sup>44</sup>
		Medial	ɕiai <sup>11</sup>	ɕiai <sup>213</sup>			
		Diminutive	ɕia <sup>11</sup>	ɕia <sup>35</sup>			

Table 3.20: Cognate classifiers in the Miao group

## D. Demonstratives in the Miao Group

The Miao languages use relatively large sets of adnominal demonstratives comprising of five to nine elements.

<sup>38</sup> In Kǎilǐ, the classifier *saŋ*<sup>55</sup> is cognate to the other forms, but has shifted its meaning to ‘layer’, ‘stratum’.

<sup>39</sup> In *Hmu*, there is a cognate nominal form *qha*<sup>44</sup>, but it cannot occur in classifier constructions.

<sup>40</sup> In *Xong*, the cognate form *qho*<sup>35</sup> is a noun prefix attached to a wide range of nouns; it may not be involved in classifier constructions.

<sup>41</sup> This classifier is an old loanword from the Chinese standard measure word *shēng* 升 ‘liter’.

Deictic Centre	Distance	Other Features	Type I	Type II	Type III		
			(‘agglutinative’)	(‘fusional’)	(‘isolating’)		
			Hmong <sup>42</sup>	Ahmao <sup>43</sup>	Qanou <sup>44</sup>	Hmu <sup>45</sup>	Xong <sup>46</sup>
Speaker	PROXIMAL	---	na <sup>44</sup>	ŋ <sup>55</sup>	no <sup>22</sup>	noŋ <sup>35</sup>	nən <sup>44</sup>
Speaker	MEDIAL	---	n-teu <sup>24</sup>	vhai <sup>35</sup>			
Speaker	DISTAL	---	o <sup>44</sup>				
Speaker	DISTAL ++	---	-phua <sup>33</sup> -				
Addressee	PROXIMAL	---	ka <sup>44</sup>		ni <sup>44</sup>	nən <sup>35</sup>	ka <sup>44</sup>
Speaker & Addressee	PROXIMAL	---			mo <sup>44</sup>	moŋ <sup>35</sup>	a <sup>44</sup>
Speaker & Addressee	DISTAL	---			ie <sup>33</sup>	ɛ <sup>33</sup>	ei <sup>35</sup>
Speaker	MEDIAL	ALTITUDE: HIGH		bhi <sup>35</sup>			
Speaker	MEDIAL	ALTITUDE: EQUAL		tsai <sup>35</sup>			
Speaker	MEDIAL	ALTITUDE: LOW		tʉ <sup>35</sup>			
Speaker	DISTAL	ALTITUDE: EQUAL		tsau <sup>35</sup>			
Speaker	---	POSITION: OPPOSITE	ti <sup>24</sup>	dhi <sup>35</sup>			
Speaker	---	POSITION: FRONT	tau <sup>24</sup>				
Speaker	---	POSITION: BACK	tshai <sup>33</sup>				
Speaker & Addressee	---	RECOGNITION: FAMILIAR	i <sup>44</sup>	i <sup>55</sup>	ie <sup>22</sup>	i <sup>35</sup>	zi <sup>35</sup>

Table 3.21: Demonstratives in five Miao languages

<sup>42</sup> The Eastern Miao language *Hmong* is spoken by 500,000 people, mainly in Yúnnán province. The data presented in this section originate from Hé-kǒu 河口 county, were collected by Matthias Gerner and published in Gerner (2009a).

<sup>43</sup> *Ahmao* is a Western Miao language spoken by 350,000 people in Wēining 威宁 county of Western Guizhōu. The data of this section were recorded by Matthias Gerner during 2005-2007 and published in Gerner (2009a).

<sup>44</sup> *Qanou* is a central Miao language spoken by perhaps 350,000 people in Sāndū 三都 county of Guizhōu province. The language is closely related to *Hmu*. The data are field data of Matthias Gerner and published in Gerner (2009a).

<sup>45</sup> The Central Miao language *Hmu* has about 1,400,000 speakers in Southeast Guizhōu 黔东南. The data in this section were collected by Matthias Gerner during 2003-2007 and published in Gerner (2009a).

<sup>46</sup> *Xong* belongs to the Eastern Miao group and is spoken by ca. 50,000 people. The Xong dialect represented in this section is from Huāyuán 花垣 county in Húnán province. The data were published in Gerner (2009a).

The hallmark of all Miao languages is the existence of recognitional demonstratives whose function is to activate inactive as well as private information shared between the speaker and the addressee. The *Hmong* language uses an unusual subset of three positional demonstratives in order to locate an object in FRONT, BACK or OPPOSITE the speaker. The *Ahmao* language uses four altitude demonstratives which help identify an object at HIGHER, EQUAL, and LOWER altitude than the speaker.

The Miao languages can be associated with three types, depending on the manner in which they encode deitic features: an agglutinative type, a fusional type, and an isolating type. These distinctions are drawn regardless of the general morphology type of the Miao languages, which is always isolating.

#### (i) 'Agglutinative' Type

*Hmong* exhibits several areally rare properties: its use of a distance intensifier and three exophoric positional demonstratives, as well as the possibility of compounding serial demonstratives. Because of this last property, we call its demonstratives *agglutinative*, although overall *Hmong* is an isolating language.

*Hmong* seems to exhibit more than three *distance* categories. Its system of ad/pronominal demonstratives differentiates three basic *distance* categories (PROXIMAL, MEDIAL, and DISTAL), all of which depend on the speaker, and an unmarked category not encoded for *distance* nuances. Additionally, there is a bound morpheme (*-phua*<sup>33</sup>)<sup>47</sup> that must be used in conjunction with unbound demonstrative morphemes listed in the subsequent chart. This morpheme functions as *distance* intensifier.

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<sup>47</sup> A short description of *-phua*<sup>33</sup> is also provided by Xióng and Cohen (2005: 63-64).

Deictic Centre	Distance	Other Features	Hmong	
Speaker	PROXIMAL	---	na <sup>44</sup>	} Distance
Speaker	MEDIAL	---	nteu <sup>24</sup>	
Speaker	DISTAL	---	o <sup>44</sup>	
Speaker	DISTAL ++	---	-phua <sup>33-</sup>	
Addressee	PROXIMAL	---	ka <sup>44</sup>	} Positional
Speaker	---	POSITION: OPPOSITE	ti <sup>24</sup>	
Speaker	---	POSITION: FRONT	tau <sup>24</sup>	
Speaker	---	POSITION: BACK	tshai <sup>33</sup>	} Recognitional
Speaker & Addressee	---	RECOGNITION: FAMILIAR	i <sup>44</sup>	

Table 3.22: 'Agglutinative' demonstratives in Hékkǒu Hmong

The demonstrative intensifier *-phua*<sup>33-</sup> increases the distance to the deictic center, so that *Hmong* distinguishes four *distance* categories. However, this understanding is rendered complicated by the fact that these distance categories can only be contrasted in more complex compounds, and not in minimal pairs. Thus, *-phua*<sup>33-</sup> cannot occur alone with the distance demonstratives, as seen in the (b) versions of (30)-(32), but should further include a positional demonstrative, as seen in (32b).

(30) *Distance: PROXIMAL (Hmong)*

- |  |   |
|--|---|
| <p>a. to<sup>21</sup> nən<sup>21</sup> <b>na</b><sup>55</sup><br/>         CL horse DEM.S.PROX<br/>         'this horse (near to speaker)'</p> | <p>b. * to<sup>21</sup> nən<sup>21</sup> <b>phua</b><sup>33</sup> <b>na</b><sup>55</sup><br/>         CL horse DEM.INT DEM.S.PROX<br/>         'this horse (far away from the speaker)'</p> |
|--|---|

(31) *Distance: MEDIAL (Hmong)*

- |   |  |
|---|--|
| <p>a. to<sup>21</sup> nən<sup>21</sup> <b>nteu</b><sup>24</sup><br/>         CL horse DEM.S.MED<br/>         'that horse (mid distance to speaker)'</p> | <p>b. * to<sup>21</sup> nən<sup>21</sup> <b>phua</b><sup>33</sup> <b>nteu</b><sup>24</sup><br/>         CL horse DEM.INT DEM.S.MED<br/>         'that horse (far away from speaker)'</p> |
|---|--|

(32) *Distance: DISTAL (Hmong)*

- |   |  |
|---|--|
| <p>a. to<sup>21</sup> nən<sup>21</sup> <b>o</b><sup>44</sup><br/>         CL horse DEM.S.DIST<br/>         'that horse (far away from speaker)'</p> | <p>b. * to<sup>21</sup> nən<sup>21</sup> <b>phua</b><sup>33</sup> <b>o</b><sup>44</sup><br/>         CL horse DEM.INT DEM.S.DIST<br/>         'that horse (far away from speaker)'</p> |
|---|--|

The demonstrative intensifier *-phua*<sup>33</sup> may only be employed when one of the positional demonstratives in the above chart is inserted in the demonstrative complex (see 33b). In this instance, it builds up a contrast to the demonstrative compound without the intensifier (see 33a).

(33) Distance contrast: DISTAL vs. DISTAL++ (Hmong)

- a. to<sup>21</sup> nən<sup>21</sup> **tau**<sup>24</sup>                      **o**<sup>44</sup>  
 CL horse DEM.S.FRO DEM.S.DIST  
 ‘that horse (ahead of & far away from speaker)’
- b. to<sup>21</sup> nən<sup>21</sup> **phua**<sup>33</sup>    **tau**<sup>24</sup>                      **o**<sup>44</sup>  
 CL horse DEM.INT DEM.S.FRO DEM.S.DIST  
 ‘that horse (ahead of & even further away from speaker)’

Meanwhile the second areally rare feature is the presence of three exophoric positional demonstratives which locate an object in FRONT, BACK, and OPPOSITE of the speaker.

(34) Orientation demonstratives (Hmong)

- |  |  |
|--|--|
| <p>a. to<sup>21</sup> nən<sup>21</sup> <b>tau</b><sup>24</sup><br/>         CL horse DEM.S.FRO<br/>         ‘that horse (front of speaker)’</p>  | <p>b. to<sup>21</sup> nən<sup>21</sup> <b>tshai</b><sup>33</sup><br/>         CL horse DEM.S.BACK<br/>         ‘that horse (behind speaker)’</p> |
| <p>c. to<sup>21</sup> nən<sup>21</sup> <b>ti</b><sup>24</sup><br/>         CL horse DEM.S.OPPOS<br/>         ‘that horse [opposite speaker]’</p> |  |

The third special property of the *Hmong* system is its ability to form serial demonstratives that can be inserted in three slots. The first slot is reserved for the distance intensifier *phua*<sup>33</sup>, the second for positional demonstratives, and the third for distance demonstratives or recognitional demonstratives.

Classifier and Noun	1 <sup>st</sup> Slot: (Intensifier)	2 <sup>nd</sup> Slot: Positional	3 <sup>rd</sup> Slot: Distance / Recognitional	Restrictions
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )			phua <sup>33</sup> cannot be used
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>		
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>		phua <sup>33</sup> cannot be used phua <sup>33</sup> cannot be used phua <sup>33</sup> cannot be used phua <sup>33</sup> cannot be used phua <sup>33</sup> cannot be used na <sup>44</sup> cannot be used
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>		
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )		na <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )		nteu <sup>24</sup>	
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )		o <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )		ka <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(*phua <sup>33</sup> )		i <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>	(*na <sup>44</sup> )	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>	nteu <sup>24</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>	o <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>	ka <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tj <sup>24</sup>	i <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>	(*na <sup>44</sup> )	na <sup>44</sup> cannot be used
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>	nteu <sup>24</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>	o <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>	ka <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tau <sup>24</sup>	i <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>	(*na <sup>44</sup> )	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>	nteu <sup>24</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>	o <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>	ka <sup>44</sup>	
to <sup>21</sup> nən <sup>21</sup>	(phua <sup>33</sup> )	tshaj <sup>33</sup>	i <sup>44</sup>	

Table 3.23: Serial demonstratives in Héköu Hmong

In addition, native speakers accept the following two serial demonstratives that do not fit into the aforementioned scheme.

- (35) Two atypical serial demonstratives
- a. to<sup>21</sup> nən<sup>21</sup> nteu<sup>24</sup> ka<sup>44</sup>  
 CL horse DEM.S.MED DEM.A.PROX  
 'that horse (close to A, not so close to S)'

- b. to<sup>21</sup> nən<sup>21</sup> nteu<sup>24</sup> i<sup>44</sup>  
 CL horse DEM.S.MED DEM.S&A.FAM  
 ‘that horse (not so close to S, S and A know about)’

Serial Demonstratives composed of three elements are used in complex positioning exercises where the speaker wants to guide the addressee through a multifarious environment.

(36) 3-string demonstratives

- |    |   |                   |                    |                     |                  |
|----|---|-------------------|--------------------|---------------------|------------------|
| a. | to <sup>21</sup>  | nən <sup>21</sup> | phua <sup>33</sup> | tau <sup>24</sup>   | ka <sup>44</sup> |
|    | CL  | horse             | DEM.INT            | DEM.S.FRO           | DEM.A.PROX       |
|    | ‘that horse [ahead very far away and close to addressee]’             |                   |                    |                     |                  |
| b. | to <sup>21</sup>  | nən <sup>21</sup> | phua <sup>33</sup> | tj <sup>24</sup>    | i <sup>44</sup>  |
|    | CL  | horse             | DEM.INT            | DEM.S.OPPOS         | DEM.S&A.FAM      |
|    | ‘that horse [on opposite side of speaker very far away and familiar]’ |                   |                    |                     |                  |
| c. | to <sup>21</sup>  | nən <sup>21</sup> | phua <sup>33</sup> | tshai <sup>33</sup> | o <sup>44</sup>  |
|    | CL  | horse             | DEM.INT            | DEM.S.BACK          | DEM.S.DIST       |
|    | ‘that horse [on back side of speaker very far away of speaker]’       |                   |                    |                     |                  |

(ii) ‘Fusional’ Type

*Ahmao* exhibits three altitude categories: HIGH (higher than speaker), EQUAL (at the same height as speaker), and LOW (lower than speaker) in addition to four other demonstratives not marked for *altitude*. These altitude differences are strictly related to relative height as opposed to a specific geographical environment, even if this environment may imply *altitude*. To illustrate, the noun referring to a flying bird may be modified by the HIGH demonstrative bhi<sup>35</sup>, despite the fact that no special landscape is referred to. The following illustration is quoted from a folk story recorded by Wáng Déguāng.

- (37) Deictic Centre: Speaker (Ahmao) (Wáng 1986: 75)
- |   |                  |                  |                    |                                    |                   |                    |                  |                  |                     |
|---|------------------|------------------|--------------------|------------------------------------|-------------------|--------------------|------------------|------------------|---------------------|
| ku <sup>55</sup>  | la <sup>31</sup> | lu <sup>55</sup> | tʃho <sup>11</sup> | pi <sup>33</sup> tey <sup>33</sup> | nau <sup>31</sup> | vʃai <sup>35</sup> | ku <sup>55</sup> | la <sup>31</sup> | die <sup>31</sup> . |
| 1.SG  | like             | CL               | garment            | skin                               | bird              | DEM.S.MED          | 1.SG             | like             | really              |
| ‘I like that garment made of bird skin [over there, not far away], I really like it.’ |                  |                  |                    |                                    |                   |                    |                  |                  |                     |

The threshold between ‘isolating’ and ‘fusional’ encoding lies between two and three deictic features (or one and two, if the *deictic center* as definitional feature is subtracted from the counting). *Wēining Ahmao* is a language with ‘inflectional’ demonstratives, as more than half of its determiners exhibit three deictic features. Otherwise, *Ahmao* has an isolating morphology, as is the case with all the Miao languages in Southeast Asia.

1 <sup>st</sup> Feature: Deictic Centre	2 <sup>nd</sup> Feature: Distance	3 <sup>rd</sup> Feature: Other	Ahmao	
Speaker	PROXIMAL	---	ŋ <sup>i55</sup>	} Distance
Speaker	MEDIAL	---	vhai <sup>35</sup>	
Speaker	MEDIAL	ALTITUDE: HIGH	bhi <sup>35</sup>	} Altitude
Speaker	MEDIAL	ALTITUDE: EQUAL	tsai <sup>35</sup>	
Speaker	MEDIAL	ALTITUDE: LOW	tɯ <sup>35</sup>	
Speaker	DISTAL	ALTITUDE: EQUAL	tsau <sup>35</sup>	} Positional
Speaker	---	POSITION: OPPOSITE	dhi <sup>35</sup>	
Speaker & Addressee	---	RECOGNITION: FAMILIAR	i <sup>55</sup>	→ Recognitional

Table 3.24: ‘Fusional’ demonstratives in *Wēining Ahmao*

### (iii) ‘Isolating’ Type

Central and Eastern Miao languages epitomize the ‘isolating’ type represented below by the *Hmu* language. In addition to the feature of *deictic center*, *Hmu* (and similar Miao languages) only builds one feature into the demonstratives: either *distance* or *recognition*. We call it ‘isolating’ encoding if only one extra feature is encoded in demonstratives.

1 <sup>st</sup> Feature: Deictic Centre	2 <sup>nd</sup> Feature: Distance	3 <sup>rd</sup> Feature: Other	Hmu	
Speaker	PROXIMAL	---	noŋ <sup>35</sup>	} Distance
Addressee	PROXIMAL	---	nən <sup>35</sup>	
Speaker & Addressee	PROXIMAL	---	moŋ <sup>35</sup>	
Speaker & Addressee	DISTAL	---	ɛ <sup>33</sup>	} Recognitional
Speaker & Addressee	---	RECOGNITION: FAMILIAR	i <sup>55</sup>	

Table 3.25: ‘Isolating’ demonstratives in *Hmu*

*Hmu* uses a *person-based* system of demonstratives.<sup>48</sup> In example (38), the demonstrative refers to a noun referent in close vicinity to the addressee; on the other hand, the demonstrative of (39) infers PROXIMAL, and the demonstrative of (40) DISTAL *distance* to both the speaker and the addressee.

(38) *Deictic Centre: Addressee (Hmu)* (Cáo 2001: 388)

moŋ<sup>55</sup> pɛ<sup>33</sup> vi<sup>11</sup> ta<sup>55</sup> moŋ<sup>11</sup> γəu<sup>35</sup> moŋ<sup>55</sup> tɕaŋ<sup>35</sup> la<sup>13</sup> ka<sup>35</sup>waŋ<sup>55</sup>  
2.SG let 1.SG come go guard 2.SG CL.plot land maize

nən <sup>35</sup>	i <sup>33</sup>	hmaŋ <sup>44</sup>	ɛ <sup>55</sup> .
DEM.A.PROX	NUM.1	evening	SUG

'Let me guard that maize field of yours [close to you] for one evening.'

(39) *Deictic Centre: Speaker & Addressee (Hmu)* (Cáo 2001: 395)

vi<sup>11</sup> qa<sup>55</sup> ta<sup>55</sup> moŋ<sup>11</sup> ɕhu<sup>33</sup>ɕha<sup>33</sup> ta<sup>35</sup> moŋ<sup>11</sup> liaŋ<sup>11</sup> tio<sup>44</sup>  
1.SG then come go clean up take go bury COV.be at

ɛ <sup>33</sup>	qa <sup>33</sup> ta <sup>35</sup>	γaŋ <sup>55</sup>	moŋ <sup>35</sup> .
CL	tail	mountain	DEM.S&A.PROX

'I went to take it (the dog) away and buried it in that mountain field [not far from both of us].'

(40) *Deictic Centre: Speaker & Addressee (Hmu)* (Cáo 2001: 386)

ta <sup>31</sup>	pa <sup>33</sup>	ka <sup>35</sup>	moŋ <sup>11</sup>	taŋ <sup>11</sup>	ɛ <sup>33</sup> .
throw	lump	rice	go	head, end	DEM.S&A.DIST

'[He] threw the lump of rice to that end of the field [far from both of us].'

The deictic feature of *recognition* (see Himmelmann 1996: 230-239; Diessel 1999: 106) attempts to activate inactive<sup>49</sup> and private<sup>50</sup> information shared by

<sup>48</sup> A set of demonstratives that only involves the speaker as deictic center is called *distance-* or *speaker-based*, whilst a system that involves both the speaker and the addressee as deictic center is termed *person-based* (see Anderson and Keenan 1985: 282-284; Diessel 1999: 39).

<sup>49</sup> This is information not mentioned in the immediately preceding discourse.

<sup>50</sup> This is information not shared by third parties different from speaker and addressee, such as general world or cultural knowledge, which is available to human species or to members of a speech community (e.g. *the sun* or *the president*).

both the speaker and by the addressee. The deictic feature of recognition only exhibits one value: FAMILIAR. Since shared information pertains to the speaker and addressee, the FAMILIAR demonstrative has the deictic center of *Speaker & Addressee* and can be glossed by ‘the one/thing you know’. Notably, exclusively FAMILIAR demonstratives are reported in Oceanic languages<sup>51</sup> and probably exist in several other languages. *Hmu* and other Miao languages meanwhile exhibit one FAMILIAR demonstrative that descend from the same cognate root *\*i*. In folk stories, the FAMILIAR demonstrative typically functions as a long-distance, ANAPHORIC element which reanimates topics that were mentioned some time ago.

(41) FAMILIAR demonstrative (Hmu) (Cáo 2001: 389)

ɛ<sup>44</sup>nən<sup>35</sup>, tɔu<sup>13</sup>lɔi<sup>44</sup> xhi<sup>33</sup>tə<sup>44</sup> tɛ<sup>11</sup> tia<sup>13</sup> qa<sup>55</sup> tɔu<sup>13</sup>tɔi<sup>55</sup> ta<sup>55</sup> moŋ<sup>11</sup>  
 thus as soon as morning CL elder brother then really come go  
 khəu<sup>44</sup> poŋ<sup>11</sup> tɔu<sup>44</sup>tɔ<sup>35</sup>

i <sup>35</sup>
DEM.FAM

 vu<sup>13</sup>nə<sup>13</sup> vu<sup>13</sup>nə<sup>13</sup> i<sup>33</sup>γəu<sup>13</sup>.  
 shake CL:pair bamboo with strength with strength continuously  
 ‘At dawn, the (elder) brother went to shake the bamboo tree (the one you know) continuously with great strength.’

The FAMILIAR demonstrative cannot be associated with noun referents whose identity can be derived from global or cultural knowledge, thus contradicting the personal and private nature of shared knowledge.

(42) FAMILIAR demonstrative (Hmu)

\* lɛ<sup>33</sup> hnɛ<sup>33</sup>

i <sup>35</sup>
DEM. FAM

  
 CL sun  
 (‘the sun’\*)

The FAMILIAR demonstrative is typically employed in a non-ANAPHORIC sense, when the endeavor is to recall the addressee an object of shared experience not previously mentioned.

<sup>51</sup> For example, the Nêlêmwa language (an Austronesian language spoken by 1,100 people in New Caledonia) uses a familiar demonstrative (Bril 2004: 100).

(43) FAMILIAR demonstrative (Hmu)

moŋ <sup>55</sup>	nin <sup>13</sup>	a <sup>55</sup>	so <sup>13</sup>	pi <sup>33</sup>	tɛ <sup>11</sup>	nɛ <sup>11</sup>	i <sup>35</sup>	zan <sup>55?</sup>
2.SG	remember	NEG	reach	NUM.3	CL	fish	DEM.FAM	DP

‘ “Don’t you remember the three fish?” ’

## E. Personal Pronouns in the Miao Group

Personal pronoun systems in Miao languages are classified into two categories, depending on whether or not the dual pronouns are derived from the plural forms by suffixing the human classifier. *Hmong* (Western Miao) and *Hmu* (Central Miao) do not suffix the human classifier to the plural forms and epitomize *type I*. *Hmong* uses independent morphemes as dual pronouns with the exception of the 2<sup>nd</sup> person dual pronoun derived from the 2<sup>nd</sup> person plural pronoun by a tone change (*type Ia*). In *Hmu*, the number two is used as 1<sup>st</sup> person dual pronoun, whereas the 2<sup>nd</sup> and 3<sup>rd</sup> person dual pronouns are derived from the 2<sup>nd</sup> and 3<sup>rd</sup> person plural forms, respectively by a tone change (*type Ib*). *Ahmao* (Western Miao) and *Xong* (Eastern Miao) suffix the human classifier to the plural forms and belong to *type II*. In *Ahmao*, the number two (a<sup>55</sup>) as well as the human classifier (lu<sup>55</sup>) are suffixed collectively and have merged with the plural forms. Moreover, the 3<sup>rd</sup> person plural pronoun is derived from the 3<sup>rd</sup> singular pronoun via a suffix (*Ahmao* represents *type IIa*). In *Xong*, the dual pronouns are derived from plural pronouns by suffixing the human classifier (le<sup>35</sup>) to only the plural forms. The 3<sup>rd</sup> person pronoun is unmarked for number, representing singular and plural number (*Xong* represents *type IIb*).

		<b>Type Ia</b> (1 dual from plural by tone change) <b>Hmong</b> <sup>53</sup>	<b>Type Ib</b> (2 duals from plural by tone change) <b>Hmu</b> <sup>54</sup>	<b>Type IIa</b> (3 duals from plural, 1 plural from singular by suffix) <b>Ahmao</b> <sup>55</sup>	<b>Type IIb</b> (3 duals from plural by suffix, 1 ambiguous) <b>Xong</b> <sup>56</sup>
	<b>Proto-Miao-Yao</b> <sup>52</sup>				
1.SG	*kɛŋ <sup>B</sup> (note <sup>57</sup> )	ko <sup>35</sup>	vi <sup>11</sup>	ku <sup>55</sup>	ve <sup>43</sup>
2.SG	*mɯei	kao <sup>42</sup>	moŋ <sup>55</sup>	gi <sup>31</sup>	mon <sup>454</sup>
3.SG	*niæn(X)	ni <sup>21</sup>	nən <sup>55</sup>	ŋ <sup>h</sup> i <sup>11</sup>	pɾ <sup>43</sup> (note <sup>58</sup> )
1.DL		u <sup>54</sup> (note <sup>59</sup> )	o <sup>33</sup> (note <sup>60</sup> )	a <sup>55</sup> lu <sup>55</sup> (note <sup>61</sup> )	pɛu <sup>454</sup> le <sup>35</sup>
2.DL		me <sup>54</sup> (note <sup>62</sup> )	maŋ <sup>33</sup> (note <sup>63</sup> )	ma <sup>31</sup> lu <sup>55</sup> (note <sup>64</sup> )	man <sup>43</sup> le <sup>35</sup>
3.DL		ngeu <sup>35</sup> (note <sup>65</sup> )	mɛ <sup>33</sup> (note <sup>66</sup> )	ŋ <sup>h</sup> a <sup>11</sup> lu <sup>55</sup> (note <sup>67</sup> )	pɾ <sup>43</sup> le <sup>35</sup>
1.PL	*N-pɔu	pɛ <sup>54</sup>	pi <sup>33</sup>	pi <sup>35</sup>	pɛu <sup>41</sup> (note <sup>68</sup> )
2.PL	*miəu	me <sup>42</sup>	maŋ <sup>55</sup> (note <sup>69</sup> )	mi <sup>31</sup>	man <sup>43</sup> (note <sup>70</sup> )
3.PL	---	pua <sup>54</sup> (note <sup>71</sup> )	mɛ <sup>55</sup> (note <sup>72</sup> )	ŋ <sup>h</sup> i <sup>11</sup> dz <sup>h</sup> au <sup>35</sup>	pɾ <sup>43</sup> (note <sup>73</sup> )

Table 3.26: Personal pronouns in Miao languages

<sup>52</sup> The Proto-Miao pronoun forms are quoted from Ratliff (2010:218).

<sup>53</sup> The *Hmong* data presented in this section originate from Héikǒu 河口 county and are quoted from Xióng and Cohen (2005: 64-66).

<sup>54</sup> The pronoun data from *Hmu* (Central Miao) were collected by Matthias Gerner during 2003-2005.

<sup>55</sup> The *Ahmao* data presented in this section were collected by Matthias Gerner during 1997-1998.

<sup>56</sup> The *Xong* dialect represented in this section is spoken in Fènghuáng 凤凰县 county within Húnán province. The pronoun data are quoted from Sposato (2015: 302).

<sup>57</sup> This form represents only *Proto-Miao*.

<sup>58</sup> This third person pronoun can be either singular or plural and is unmarked for number.

<sup>59</sup> Younger speakers supplant this traditional form by pɛ<sup>54</sup>ao<sup>54</sup>to<sup>21</sup> 'we two' (see Xióng and Cohen 2005: 66).

<sup>60</sup> The *Hmu* morpheme o<sup>33</sup> means 'two' and 'we two'.

<sup>61</sup> In *Ahmao*, a<sup>55</sup>lu<sup>55</sup> has become the first person dual pronoun, where a<sup>55</sup> means 'two' and lu<sup>55</sup> denote the human classifier. The form a<sup>55</sup>lu<sup>55</sup> has further merged with the 2<sup>nd</sup> and 3<sup>rd</sup> person plural pronouns to form dual pronouns.

<sup>62</sup> Younger speakers replace this traditional form by me<sup>42</sup>ao<sup>33</sup>to<sup>21</sup> 'you two' (see Xióng and Cohen 2005: 66).

<sup>63</sup> Younger speakers tend to replace this traditional form by moŋ<sup>55</sup>o<sup>33</sup>le<sup>55</sup> 'you two' (o<sup>33</sup> 'two' and le<sup>55</sup> 'human classifier').

<sup>64</sup> The 2<sup>nd</sup> person dual pronoun ma<sup>31</sup>lu<sup>55</sup> is merged from mi<sup>31</sup> '2.PL', a<sup>55</sup> 'two' and lu<sup>55</sup> 'human classifier'.

<sup>65</sup> Instead of this traditional form, younger speakers use pua<sup>33</sup>ao<sup>42</sup>to<sup>21</sup> 'they two' (see Xióng and Cohen 2005: 66).

<sup>66</sup> Younger speakers tend to replace this traditional form by nən<sup>55</sup>o<sup>33</sup>le<sup>55</sup> 'they two' (o<sup>33</sup> 'two' and le<sup>55</sup> 'human classifier').

<sup>67</sup> The 3<sup>rd</sup> person dual pronoun ŋ<sup>h</sup>a<sup>11</sup>lu<sup>55</sup> is merged from ŋ<sup>h</sup>i<sup>11</sup> '3.SG', a<sup>55</sup> 'two' and lu<sup>55</sup> 'human classifier'.

<sup>68</sup> This pronoun can optionally be suffixed by the plural morpheme ko<sup>43</sup> as pɛu<sup>41</sup>ko<sup>43</sup>.

<sup>69</sup> Parallely, people also use the form moŋ<sup>55</sup>do<sup>11</sup> 'they'.

<sup>70</sup> This pronoun can optionally be suffixed by the plural morpheme ko<sup>43</sup> as man<sup>43</sup>ko<sup>43</sup>.

<sup>71</sup> There are four other forms used for the 3<sup>rd</sup> Person Plural: ni<sup>21</sup>bua<sup>33</sup>, ni<sup>21</sup>me<sup>42</sup>, leu<sup>35</sup>, leu<sup>35</sup>tao<sup>35</sup> (Xióng & Cohen 2005: 64-65).

<sup>72</sup> Young speakers tend to replace this traditional form by nən<sup>55</sup>to<sup>11</sup> 'they'.

<sup>73</sup> This pronoun can optionally be suffixed by the plural morpheme ko<sup>43</sup> as pɾ<sup>43</sup>ko<sup>43</sup>.

The dual pronouns form part of the grammatical system in all Miao languages. Their use is obligatory for pronominal reference to two entities. Plural pronouns point to quantities that are greater than two.

Martha Ratliff (2010:218-220) reconstructs the singular and plural pronouns for *Proto-Miao-Yao* (except for 3<sup>rd</sup> person plural). Notable is the 1<sup>st</sup> person plural pronoun \*N-pɔu which might be derived from the number ‘three’ in *Proto-Miao-Yao*. The original meaning of \*N-pɔu was ‘group’ and provide a link to the *Proto-Miao-Yao* number \*pjəu ‘three’. In contemporary Miao languages, both the 1<sup>st</sup> person plural pronoun and the number ‘three’ are homophones.

### 3.3.3 Syntax

Miao-Yao languages exhibit basic SVO order in simple clauses and sometimes use OSV order in topical constructions. Grammatical roles are encoded by unmarked nouns that are incorporated into the predicate, or by prepositions (coverbs) which are grammaticalized from verbs.

#### A. Word order correlations in the Miao Group

Several of Greenberg (1966)’s universals connect the relative order of O and V to other dependency orders. This fact prompted Lehmann (1973) to view the relative order of direct object and verb (VO or OV) as a deep property that affects the relative order of other dependency relations. Considering the Miao languages, which are of the type VO and where half of the dependency relations have D(ependent)H(ead) order and the other half HD order, Lehmann’s predictions do not seem to be accurate.

Level	Relation	First slot	Second slot	Languages
Phrase	Possessive	Possessor noun (D)	Possessee noun (H)	Hmong, Ahmao, Hmu, Xong
	Adjectival	Noun (H)	Adjective (D)	Hmu, Xong
	Adjectival (restrictive)	Adjective (D)	Noun (H)	Hmong, Ahmao
	Adjectival (non-restrictive)	Noun (H)	Adjective (D)	Hmong, Ahmao
	Nominalization	Relative clause (D)	Noun (H)	Hmong, Ahmao, Hmu, Xong
	Adpositional	Preposition (H)	Noun phrase (D)	Hmong, Ahmao, Hmu, Xong
Clause	Predicational	Predicate (H)	Arguments (D)	Hmong, Ahmao, Hmu, Xong
	Predicational	Adjunct (D)	Predicate (H)	Hmong, Ahmao, Hmu, Xong
	Negation	Negative particle (H)	Verb (D)	Hmong, Ahmao, Hmu, Xong
	TAM	Verb (D)	Auxiliary (H)	Hmong, Ahmao, Hmu, Xong
Sentence	Subordination	Complementizer (H)	Embedded clause (D)	Hmong, Ahmao, Hmu, Xong

Table 3.27: Dependency orders in Miao languages

We illustrate the different dependency relations in the Miao group in the remainder of this section.

### (i) Possessive Relations

Throughout the Miao group, possessors precede possessee. A classifier is obligatory in the event the possessive relation is inalienable. In *Xong*, no classifier except for a linker is used between the possessor and possessee.

#### *Hmong*

- (44) a.  $n\phi\eta\eta^{44}$        $te^{31}$   $\eta a^{55}$       b.  $kau^{42}$        $lo^{43}$        $\phi i^{31}t\phi i^{24}$   
lion      CL      tooth      2.SG      CL      temper  
 Possessor (D)      Possessee (H)      Possessor (D)      Possessee (H)  
 ‘the lion’s teeth’      ‘your temper’

#### *Ahmao*

- (45) a.  $qai^{55}$        $dz\eta o^{35}$   $l\alpha u^{53}p\alpha u^{44}$       b.  $ku^{55}$        $\eta kai^{53}$   $a^{55}ma^{31}$   
hen      CL      neck      1.SG      CL      eye  
 Possessor (D)      Possessee (H)      Possessor (D)      Possessee (H)  
 ‘the hen’s neck’      ‘my eyes’

In *Hmu*, a classifier categorizing the possessee is required in possessive NPs in case the possessive relation is inalienable. If however, it is alienable, the use of the linker  $\text{paŋ}^{31}$  becomes optional.

- Hmu*
- (46) a.  $\text{naŋ}^{33}$        $\text{laj}^{33}$        $\text{ga}^{33}\text{tə}^{\text{h}}\text{u}^{33}$       b.  $\text{nən}^{55}$        $\text{paŋ}^{31}$        $\text{lɛ}^{33}$        $\text{pi}^{55}\text{səi}^{55}$   
 snake      CL      belly      3.SG      LNK      CL      money  
 Possessor (D)      Possessee (H)      Possessor (D)      Possessee (H)  
 'the snake's belly'      'his money'

In *Xong*, the linker  $\text{naŋ}^{44}$  instead of classifiers is obligatory in possessive NPs.

- Xong*<sup>74</sup>
- (47) a.  $\text{ve}^{43}$        $\text{naŋ}^{44}$        $\text{qo}^{44}\text{tu}^{44}$       b.  $\text{zəŋ}^{31}$        $\text{naŋ}^{44}$        $\text{pa}^{44}\text{ŋo}^{31}$   
 1.SG      LNK      hand      sheep      LNK      mouth  
 Possessor (D)      Possessee (H)      Possessor (D)      Possessee (H)  
 'my hand'      'the sheep's mouth'

## (ii) Adjectives

Some Miao languages, particularly Western Miao languages, allow attributive adjectives (D) to occur before or after the head noun (H) with a semantic difference. They restrict reference of the noun before the noun; similarly, they describe the noun without restricting reference after the noun.

- Hmong*<sup>75</sup>
- (48) a.  $\text{lo}^{54}$        $\text{go}^{54}$        $\text{ŋao}^{42}$       b.  $\text{lo}^{54}$        $\text{ŋao}^{42}$        $\text{go}^{54}$   
 CL      old      boat      CL      boat      old  
 Adjective (D)      Noun (H)      Noun (H)      Adjective (D)  
 'the old boat' (restrictive)      'the boat which is old' (non-restrictive)

<sup>74</sup> *Xong* is an Eastern Miao language spoken by 900,000 people in Húnán province. The data originate from Huāyuán 花垣 county and were collected by Matthias Gerner in 2007.

<sup>75</sup> See Xióng and Cohen (2005: 66-68).

- c. drang<sup>54</sup> mi<sup>35</sup> dra<sup>33</sup> d. dran<sup>54</sup> dra<sup>33</sup> mi<sup>35</sup>  
 CL small knife CL knife small  
 Adjective (D) Noun (H) Noun (H) Adjective (D)  
 ‘the small knife’ (restrictive) ‘the knife which is small’ (non-restrictive)

Descriptive non-restrictive adjectives that are posed following the head noun are typically flanked by demonstratives whose function is to identify the referent.

*Ahmao*<sup>76</sup>

- (49) a. dla<sup>53</sup> lie<sup>54</sup> ntey<sup>55</sup>  
 CL.AUG.DEF red book  
 Adjective (D) Noun (H)  
 ‘the red book’ (restrictive)
- b. dla<sup>53</sup> ntey<sup>55</sup> lie<sup>54</sup> vhai<sup>35</sup>  
 CL.AUG.DEF book red DEM.S.MED  
 Noun (H) Adjective (D)  
 ‘that book which is red’ (non-restrictive)

However, in *Hmu* and *Xong*, attributive adjectives occur only after the head noun, as illustrated for *Hmu* by the following restrictive adjective modified by the superlative modifier. Example (50a) is ungrammatical, while (50b) is grammatical. See also examples (51a) and (51b) in *Xong*.

*Hmu*<sup>77</sup>

- (50) a. \* lɛ<sup>33</sup> sha<sup>44</sup> tɕiə<sup>33</sup> ga<sup>33</sup>yu<sup>35</sup>tu<sup>44</sup> b. lɛ<sup>33</sup> ga<sup>33</sup>yu<sup>35</sup>tu<sup>44</sup> sha<sup>44</sup> tɕiə<sup>33</sup>  
 CL SUP big forest CL forest SUP big  
 Adjective (D) Noun (H) Noun (H) Adjective (D)  
 ‘the greatest forest’ ‘the greatest forest’  
 (restrictive / non-restrictive)

<sup>76</sup> The *Ahmao* data were collected by Matthias Gerner during 1997-2005.

<sup>77</sup> The *Hmu* data were discussed with native *Hmu* speakers by Matthias Gerner during 2012-2015.



- b.  $\eta j\gamma^{454}$   $\epsilon\epsilon\omega^{41}$   $m\check{o}^{454}$   $k\check{a}^{22}$   $tj^{43}t\check{a}^{14}$   $n\check{a}^{43}$   $m\check{r}i^{43}$   $mi\check{a}^{454}$   $ka^{44}$   $n\check{r}^{22}$   $le^{41?}$   
 just now 2.SG give money LNK CL person DEM.A.PROX COP who  
Nominalization (D) Noun (H)  
 ‘Who’s that person you just gave the money to?’ (non-restrictive)

## (iv) Adposition

All Miao languages use prepositions, and not postpositions, as illustrated for *Hmong*, *Ahmao*, *Hmu*, and *Xong*.

*Hmong*<sup>82</sup>

- (55)  $t\check{s}a^{42}$   $tr\check{a}u^{33}$   $to^{54}\check{s}a\eta^{54}$   $\eta\check{a}^{33}$   $leu^{21}$ .  
 money COV.hit thief steal ASP  
 Preposition (D) Noun (H)

‘The money was stolen by a thief.’

*Ahmao*<sup>83</sup>

- (56)  $ngai^{35}$   $mpa^{33}$   $t\check{s}o^{31}$   $t\check{t}i^{55}$   $n\eta\check{a}u^{33}$   $l^{54}$   $qho^{33}$   $saw^{33}$ .  
 meat pig COV.PASS dog eat NUM.1 CL DP  
 Preposition (D) Noun (H)

‘The pig meat was bitten off a piece by the dog.’

*Hmu*<sup>84</sup>

- (57)  $n\check{e}n^{55}$   $na^{13}$   $wi^{11}$   $m\check{a}^{44}$   $x^h\omega^{33}$ .  
 3.SG COV.with 1.SG speak word  
 Preposition (D) Noun (H)

‘He is speaking with me.’

<sup>82</sup> The *Hmong* example belongs to the Miao speech of Hékǒu 河口 county and has been quoted from Xióng and Cohen (2005: 82).

<sup>83</sup> The *Ahmao* data were collected by Matthias Gerner during 1997-2005.

<sup>84</sup> The *Hmu* example was collected by Matthias Gerner in 2003.



## (vi) Negation particles

If specified in a sentence, negation particles, TAM<sup>88</sup> particles, and modal auxiliaries serve the purpose of the head, while the predicate signifies the dependent element. It is notable that negation particle precedes the predicate in all Miao languages.

*Hmong*<sup>89</sup>

(62)	thəu <sup>35</sup>	jeu <sup>35</sup>	tʂi <sup>44</sup>	kʰoŋ <sup>33</sup> .
	CL.bottle	wine	NEG	empty
			Negation (Head)	V (Dependent)

‘The bottle of wine is not empty.’

*Ahmao*<sup>90</sup>

(63)	zʰau <sup>35</sup>	ŋu <sup>31</sup>	ŋi <sup>55</sup>	hi <sup>33</sup>	zau <sup>33</sup> .
	CL.AUG.DEF	matter	DEM.S.PROX	NEG	good
				Negation (Head)	V (Dependent)

‘This event is not good.’

*Hmu*

(64)	moŋ <sup>55</sup>	ɛ <sup>44</sup> ɬəi <sup>55</sup> ɬi <sup>35</sup>	a <sup>55</sup>	noŋ <sup>55</sup>	nən <sup>35?</sup>
	2.SG	INT.why	NEG	eat	MOD
			Negation (Head)	V (Dependent)	

‘Why don’t you eat?’

*Xong*<sup>91</sup>

(65)	mon <sup>454</sup>	tɬe <sup>42</sup>	ɬaŋ <sup>54</sup>	muŋ <sup>22</sup>	tu <sup>35</sup>	sɛ <sup>35</sup>	tɬu <sup>22</sup> .
	2.SG	NEG	think	go	CONJ.then	put	DP
		Negation (Head)	V (Dependent)				

‘If you don’t want to go, then let it be.’

<sup>88</sup> Tense, aspect, and modality.

<sup>89</sup> The *Hmong* example originates from Hékǒu 河口 county in Yúnnán province and was recorded by Xióng Yùyǒu 熊玉有 in discussion with Matthias Gerner in 2011.

<sup>90</sup> The *Ahmao* example was collected by Matthias Gerner in 1997.

<sup>91</sup> The *Xong* data originate from Huāyuán 花垣 county of Húnán 湖南 province and were collected by Matthias Gerner in 2007.



## B. Coverbs in the Miao Group

Coverbs are verbs that are grammaticalized as prepositions. It is possible to reconstruct a verbal meaning for the majority of Miao prepositions. The locational preposition is the lone preposition that has cognate forms in all Miao languages:  $\eta_{\text{ao}}^{54}$  (*Hmong*)/ $\eta_{\text{o}}^{54}$  (*Ahmao*)/ $\text{nian}^{33}$  (*Hmu*)/ $\eta_{\text{i}}^{35}$  (*Xong*). The coverb ‘take’ is used variably to encode the roles of direct object and instrument; meanwhile the coverb ‘give’ can mark indirect objects; it further marks the causee in *Xong*. The coverb<sup>93</sup> ‘hit’ is the marker of passive constructions.

Verb	Coverb/Auxiliary	<i>Hmong</i>	<i>Ahmao</i>	<i>Hmu</i>	<i>Xong</i>	
‘take’		$\text{mua}^{54}$	$\text{k}^{\text{hey}11}$	$\text{ta}^{35}$	$\text{k}^{\text{r}}^{44}$	
	Direct object	$\text{mua}^{54}$	$\text{k}^{\text{hey}11}$	$\text{ta}^{35}$	$\text{k}^{\text{r}}^{44}$	
	Instrumental	$\text{mua}^{54}$	$\text{t}^{\text{hau}33}$	$\text{ta}^{35}$	$\text{k}^{\text{r}}^{44}$	
‘give’ ‘permit’ ‘say’ ‘make’ ‘wear’		$\text{tr}^{\text{eu}44}$ $\text{ja}^{44}$	$\text{ma}^{55}$	$\text{p}^{\text{e}33}$  $\text{xo}^{44}$ $\text{e}^{44}$ $\text{tio}^{44}$	$\text{ka}\eta^{31}$	
	Indirect object	$\text{tr}^{\text{eu}44}$	$\text{t}^{\text{hau}33}$	$\text{tio}^{44}$	$\text{ka}\eta^{31}$	
	Causee	$\text{ja}^{44}$	$\text{go}^{31}$	$\text{xo}^{44}/\text{e}^{44}$	$\text{ka}\eta^{31}$	
	Passive	$\text{tr}^{\text{eu}33}$	$\text{t}^{\text{so}31}$	$\text{ko}^{13}$	$\text{to}^{31}$	
	‘hit’	Passive	$\text{tr}^{\text{eu}33}$	$\text{t}^{\text{so}31}$	$\text{ko}^{13}$	$\text{to}^{31}$
		Comitative (Resultative aspect)	$\text{ntro}^{33}$ $\text{tr}^{\text{eu}33}$	$\eta\text{do}^{31}$ $\text{t}^{\text{so}31}$	$\text{na}^{13}$ $\text{ko}^{13}$	$\eta\text{a}\eta^{31}$
		$\text{tr}^{\text{eu}33}$	$\text{t}^{\text{so}31}$	$\text{ko}^{13}$		
‘be at’ ‘arrive’		$\eta_{\text{ao}}^{54}$ $\text{tso}^{33}$	$\eta_{\text{o}}^{54}$ $\text{dzo}^{31}$	$\text{nian}^{33}$ $\text{so}^{13}$	$\eta_{\text{i}}^{35}$	
	Location	$\eta_{\text{ao}}^{54}$	$\eta_{\text{o}}^{54}$	$\text{nian}^{33}$	$\eta_{\text{i}}^{35}$	
	Direction	$\text{tso}^{33}$	$\text{dzo}^{31}$	$\text{so}^{13}$	$\text{qa}^{54}$	

Table 3.28: Cognate coverbs in Miao languages

In *Ahmao*, the preposition  $\text{t}^{\text{hau}33}$ , which has no verbal function, marks indirect objects (recipients) after the main verb. Furthermore,  $\text{t}^{\text{hau}33}$  is a preposition of

<sup>93</sup> In a narrow sense, the passive auxiliary (‘hit’) and similar elements are not prepositions, but matrix verbs. For a discussion on this viewpoint, see Gerner (2003a).

### 3.2.4 Tense, Aspect, and Mood

instrumental NPs before the main verb. A preposition that ambiguously marks recipients and instruments is a rare phenomenon.

#### *Preposition for recipients and instruments (Ahmao)*

(70) a.	ku <sup>55</sup>	ma <sup>54</sup>	i <sup>54</sup>	dlfa <sup>11</sup>	n <sup>55</sup> tey <sup>55</sup>	t <sup>33</sup> hau <sup>33</sup>	ŋ <sup>11</sup> i <sup>11</sup> .
	1.SG	give	NUM.1	CL.AUG.INDEF	book	COV	3.SG
				Direct Object			Indirect Object

‘I gave him one book.’

b.	gi <sup>31</sup>	t <sup>33</sup> hau <sup>33</sup>	dzi <sup>31</sup>	li <sup>3</sup> v <sup>hau</sup> <sup>31</sup>	ŋ <sup>55</sup> i <sup>55</sup>	dz <sup>35</sup> fo <sup>35</sup>	ti <sup>54</sup> .
	2.SG	COV	CL.AUG.DEF	plough	DEM.S.PROX	plough	soil
				Instrument			

‘I plough the earth with this plough.’

The passive coverb *ko*<sup>13</sup> in *Hmu* functions as lexical verb meaning ‘be affected’, please refer to (71a). After the insertion of other verbs, it grammaticalized as resultative particle, as in (71b).

#### *Passive and resultative ‘hit’ (Hmu)*

(71) a.	moŋ <sup>55</sup>	tɛ <sup>11</sup>	tia <sup>11</sup>	zəŋ <sup>11</sup>	nian <sup>33</sup>	ko <sup>13</sup>	q <sup>h</sup> a <sup>33</sup>	no <sup>44</sup>	wa <sup>44</sup>
	2.SG	CL	son	lead	bride	COV.hit	guest	many	very
							Agent		

‘When your son got married, you were flooded by guests.’

b.	nən <sup>55</sup>	ŋi <sup>44</sup>	ko <sup>13</sup>	moŋ <sup>55</sup> .
	3.SG	see	RES	2.SG

‘He is highly regarding you.’

### 3.2.4 Tense, Aspect, and Mood

Bare verbs are a common feature in Miao-Yao languages and communicate ambiguous TAM (tense, aspect, and mood) meanings. Similar to other isolating East Asian languages, verbs are marked only for TAM concepts, and not for subject agreement. Standard TAM meanings are perfect, progressive, experiential, and habitual aspect, future tense, epistemic, or deontic mood. The

verb particles encoding these concepts are grammaticalized verbs. In this subsection, we survey the most common TAM particles.

### A. Auxiliary verbs in the Miao Group

Aspect and mood particles are typically derived from directional verbs: ‘go’ (completive aspect), ‘come’ (inchoative aspect), and ‘pass’ (experiential aspect). The verb ‘get’ gives rise to deontic mood (‘can’) and the resultative aspect.

Verb	Auxiliary	<i>Hmong</i> <sup>94</sup>	<i>Ahmao</i> <sup>95</sup>	<i>Hmu</i> <sup>96</sup>	<i>Xong</i> <sup>97</sup>
‘go’	Continuous aspect	mo <sup>21</sup>	mɬau <sup>11</sup>	moŋ <sup>11</sup>	muŋ <sup>22</sup>
	Completive aspect	mo <sup>21</sup> /taŋ <sup>21</sup>	lau <sup>33</sup> mɬau <sup>11</sup>	ta <sup>55</sup> moŋ <sup>11</sup>	lo <sup>54</sup> muŋ <sup>22</sup>
‘come’		tua <sup>42</sup>	dfɬa <sup>35</sup>	ta <sup>55</sup>	lo <sup>22</sup>
‘descend’		ŋɬe <sup>11</sup>	lau <sup>33</sup>	ŋa <sup>11</sup>	lo <sup>54</sup>
‘rise’	Inchoative aspect	tua <sup>42</sup>	ɬey <sup>55</sup>	ta <sup>55</sup>	lo <sup>54</sup>
	Perfect	leu <sup>21</sup> /la <sup>33</sup>	dau <sup>11</sup>	zaŋ <sup>55</sup>	tɛu <sup>22</sup>
‘let over’	Progressive aspect			nio <sup>55</sup>	
				nio <sup>55</sup> (restricted)	
‘get’	Resultative aspect	tou <sup>44</sup>	tau <sup>33</sup>	to <sup>44</sup>	to <sup>54</sup>
	Deontic mood (‘can’)	tou <sup>44</sup>	tau <sup>33</sup>	to <sup>44</sup>	to <sup>54</sup>
‘pass’	Resultative aspect	tɬua <sup>44</sup>	tɬɬau <sup>33</sup>	fa <sup>31</sup>	q <sup>w</sup> a <sup>54</sup>
	Experiential aspect	tɬua <sup>44</sup>	---	fa <sup>31</sup> (restricted)	q <sup>w</sup> a <sup>54</sup>

Table 3.29: Cognate auxiliary verbs in Miao languages

<sup>94</sup> The *Hmong* example belongs to the Miao speech of Hékǒu 河口 county and is quoted from Xióng and Cohen (2005: 54-56).

<sup>95</sup> The *Ahmao* data were collected by Matthias Gerner during 1997-2005.

<sup>96</sup> The *Hmu* data were collected by Matthias Gerner during 2011-2015.

<sup>97</sup> The *Xong* data originate from Huāyuán 花垣 county and were collected by Matthias Gerner during 2007-2008.

In *Hmong* (and other Miao languages), the verb *tou*<sup>44</sup> ‘get’ has grammaticalized as auxiliary verb both before and after the insertion of plain verbs. Before other verbs, it functions as modal auxiliary with the meaning ‘can’; after verbs, it is a resultative particle.

*Hmong*

- (72) a. ni<sup>21</sup> tou<sup>44</sup> keu<sup>21</sup> ndeu<sup>35</sup>.      b. ni<sup>21</sup>      qhe<sup>54</sup> tou<sup>44</sup> tse<sup>54</sup>.  
 3.SG    can    read    book      3.SG    drive    RES    car  
 ‘He can attend school.’      ‘He drove up the car.’

In *Hmu*, there are two independent verbs for ‘come’, *ta*<sup>55</sup> and *lo*<sup>11</sup>. Both verbs share the property that for the second and third person subjects, the speaker is the deictic center (movement towards *me*), while the addressee for first person subjects is the deictic center (movement towards *you*). The difference between both verbs lies in the fact that *lo*<sup>11</sup> conveys the fact that the subject is somehow associated with the destination of the movement. In many contexts, *lo*<sup>11</sup> can be translated as ‘come back’.

*Hmu*

- (73) a. wi<sup>11</sup> ta<sup>55</sup> lei<sup>44</sup>      kha<sup>35</sup>lin<sup>55</sup>  
 1.SG    come    arrive    Kǎilǐ  
 ‘I come to Kǎilǐ.’ (addressee in Kǎilǐ now)
- b. moŋ<sup>55</sup> / nəŋ<sup>55</sup> ta<sup>55</sup> lei<sup>44</sup>      kha<sup>35</sup>lin<sup>55</sup>.  
 2.SG    3.SG    come    arrive    Kǎilǐ  
 ‘You(s)he come(s) to Kǎilǐ’ (speaker in Kǎilǐ now)
- (74) a. wi<sup>11</sup> lo<sup>11</sup> lei<sup>44</sup>      kha<sup>35</sup>lin<sup>55</sup>.  
 1.SG    come    arrive    Kǎilǐ  
 ‘I come to Kǎilǐ’ (addressee in Kǎilǐ now)  
*Additional meaning:* The subject is associated with Kǎilǐ in some way.
- b. moŋ<sup>55</sup> / nəŋ<sup>55</sup> lo<sup>11</sup> lei<sup>44</sup>      kha<sup>35</sup>lin<sup>55</sup>.  
 2.SG    3.SG    come    arrive    Kǎilǐ  
 ‘You(s)he come(s) to Kǎilǐ’ (speaker in Kǎilǐ now)  
*Additional meaning:* The subject is associated with Kǎilǐ in some way.

The verbs *ta*<sup>55</sup> ‘come’ and *moŋ*<sup>55</sup> ‘go’ (though not *lo*<sup>11</sup> ‘come’) have grammaticalized as aspectual auxiliaries: the verb *ta*<sup>55</sup> ‘come’ as inchoative marker, the verb *moŋ*<sup>55</sup> ‘go’ as completive marker, and the compound *ta*<sup>55</sup>*moŋ*<sup>55</sup> as continuous aspect marker.

(75)      nən<sup>55</sup> kən<sup>55</sup>

<b>ta</b> <sup>55</sup>
INCH

      zəŋ<sup>55</sup>.  
3.SG cry                      DP  
‘He starts crying.’

(76)      nən<sup>55</sup> noŋ<sup>55</sup> ka<sup>35</sup>

<b>moŋ</b> <sup>55</sup> .
RES

  
3.SG eat      food  
‘He has eaten up his meal.’

(77)      wi<sup>11</sup> noŋ<sup>31</sup> ɛ<sup>44</sup>

<b>ta</b> <sup>55</sup> <b>moŋ</b> <sup>55</sup> .
CONT

  
1.SG alone do  
‘I continue to do it by myself.’

Like many East Asian languages, the *Xong* verb *qwa*<sup>54</sup> ‘pass, cross’ has grammaticalized as experiential aspect marker. Not all Miao languages use experiential markers (e.g. *Ahmao*) or, if they do, use them productively (e.g. *Hmu*). However, the experiential marker in *Xong* co-occurs with a wide range of verbs.

(78)      pɿ<sup>43</sup>

<b>qwa</b> <sup>54</sup>
pass, cross

      tsɿ<sup>42</sup>      muŋ<sup>22</sup>.  
3.SG                      bridge go  
‘He has gone to that place before, so he knows the way there.’

(79)      mon<sup>454</sup>      pʰu<sup>44</sup>

<b>qwa</b> <sup>54</sup>
EXP

      tu<sup>54</sup>      bei<sup>54</sup>      me<sup>42?</sup>  
2.SG say                      word dream INT  
‘Have you ever talked in your dreams?’

### B. Counterfactual conjunction in Hmu

*Counterfactual clauses* are conditional clauses ( $p \rightarrow q$ ) conveying the belief of the speaker that the protasis ( $p$ ) and the apodosis ( $q$ ) do not hold. A *past counterfactual* suggests that  $p$  and  $q$  did not hold at a particular time in the past, whereas a *present counterfactual* indicates that  $p$  and  $q$  do not hold at the present time (Iatridou 2000: 231-232).

Many authors argued that (in English) the counterfactuality of the protasis is *conversationally implicated*, as opposed to being *asserted*. Two arguments that lend credence to this view have been advanced. First, the truth of a counterfactual protasis can be asserted in the same sentence without the effect of contradiction. Second, the truth of a counterfactual protasis can be negated without the effect of redundancy (Iatridou 2000: 232).

- |         |  |   |
|---------|--|---|
| (81) a. | <i>If the patient had the measles</i> , he would have exactly the symptoms he has now. We conclude, therefore, that the patient has the measles. | <b>Assertion of protasis</b><br>(without effect of contradiction) |
| b.      | <i>If John were at home</i> , we would see light in his room. His room is dark; therefore, he is not at home.                                    | <b>Negation of protasis</b><br>(without effect of redundancy)     |

Some languages, however, do not only conversationally implicate, but also assert and encode the counterfactuality of the protasis, typically by means of a specialized conjunction. The *Hmu* language uses such a counterfactual conjunction.

Languages of the world can be classified into four types depending on whether or not they use specialized temporal ('when'), conditional ('if'), and counterfactual conjunctions (Yōng 2016: 97-114).

	<b>Languages with</b>	<b>Example</b>
<b>Type I</b>	<i>One conjunction</i> : temporal/conditional/counterfactual clauses	Lisu
<b>Type II</b>	<i>Two conjunctions</i> : Temporal/conditional versus counterfactual	Aleut
<b>Type III</b>	<i>Two conjunctions</i> : Temporal versus conditional/counterfactual	English
<b>Type IV</b>	<i>Three conjunctions</i> : Temporal versus conditional versus counterfactual	<b>Hmu</b>

Table 3.30: Languages by number of conjunctions

Languages without specialized counterfactual conjunctions, such as English, use “fake” past tense, “fake” imperfective and/or lexical elements in order to implicate the counterfactuality of the protasis (Bjorkman and Halpert 2012).

- (82) If I **knew** the answer **now**, I would tell you. (Fake Past Tense)

*Hmu* contains three conjunctions: the temporal conjunction  $\text{ɕaŋ}^{31}$  ‘when’, the conditional conjunction  $\text{ɕaŋ}^{35}\text{ɕo}^{44}$  ‘if’, and the counterfactual conjunction  $\text{tʰa}^{33}\text{ɕo}^{44}$ . The counterfactual conjunction is grammaticalized from the verb  $\text{tʰa}^{33}$  ‘cheat’ and the verb  $\text{ɕo}^{44}$  ‘say’. The following example illustrates the function of  $\text{tʰa}^{33}$  as a verb.

Verb  $\text{tʰa}^{33}$  ‘cheat’

- (83)  $\text{nɛ}^{55}\text{tɕu}^{33}$        $\text{tʰa}^{33}$      $\text{mɔŋ}^{55}$ ,     $\text{sej}^{55}$      $\text{niu}^{13}$ .  
 other people    cheat    you      also    gullible  
 ‘Other people cheat you and you are gullible.’

The conditional and counterfactual conjunctions form a minimal pair in the following two illustrations. Given that *Hmu* does not have any grammatical tense, the counterfactual ambiguously expresses a present and past counterfactual. The protasis refers to an unrealizable situation if interpreted literally, but is realizable if understood metaphorically.

Conditional Conjunction  $\text{ɕaŋ}^{35}\text{ɕo}^{44}$  ‘if’

- (84) 

$\text{ɕaŋ}^{35}\text{ɕo}^{44}$
COND:if

 $\text{mɔŋ}^{55}$   $\text{ɛ}^{44}$   $\text{to}^{44}$ ,  $\text{ga}^{55}$   $\text{goŋ}^{13}$      $\text{mɔŋ}^{55}$   $\text{paŋ}^{31}$   $\text{tɕo}^{55}$   $\text{xh}^{33}$   $\text{ta}^{35}$   
 2.SG do can then tear out 2.SG LNK CL heart take  
 $\text{ta}^{55}$   $\text{tio}^{44}$   $\text{wi}^{11}$ .  
 come to 1.SG  
*Conditional*: ‘If you are able, pull your heart out and give it to me.’

Counterfactual Conjunction  $\text{tʰa}^{33}\text{ɕo}^{44}$  ‘if’

- (85) 

$\text{tʰa}^{33}\text{ɕo}^{44}$
COUNT:if

 $\text{mɔŋ}^{55}$   $\text{ɛ}^{44}$   $\text{to}^{44}$ ,  $\text{ga}^{55}$   $\text{goŋ}^{13}$      $\text{mɔŋ}^{55}$   $\text{paŋ}^{31}$   $\text{tɕo}^{55}$   $\text{xh}^{33}$   $\text{ta}^{35}$   
 2.SG do can then tear out 2.SG LNK CL heart take  
 $\text{ta}^{55}$   $\text{tio}^{44}$   $\text{wi}^{11}$ .  
 come to 1.SG
- i. *Present Counterfactual*: ‘If you were able, you would pull your heart out and give it to me.’
  - ii. *Past Counterfactual*: ‘If you had been able, you would have pulled your heart out and given it to me.’

In contrast to English, the counterfactual meaning is not only implicated, but also encoded. We cannot assert the truth of a counterfactual protasis without the effect of contradiction (compare with the English example 81a).

*Counterfactual Conjunction tʰa<sup>33</sup>χo<sup>44</sup> 'if'*

- (86) a. 

tʰa <sup>33</sup> χo <sup>44</sup>
COUNT:if

 nən<sup>55</sup> paŋ<sup>31</sup> lɛ<sup>33</sup> tɕɛ<sup>35</sup> tio<sup>13</sup> moŋ<sup>55</sup> paŋ<sup>31</sup>, wi<sup>11</sup> noŋ<sup>44</sup>  
3.SG LNK CL house COP 2.SG LNK 1.SG want, must  
tiaŋ<sup>13</sup>tɕi<sup>33</sup>.  
fight
- i. *Counterfactual Present*: 'If his house belonged to you, I would fight.'  
ii. *Counterfactual Past*: 'If his house had belonged to you, I would have fought.'

*Intra-sentential assertion of protasis (with effect of contradiction)*

- b. \* nən<sup>55</sup> paŋ<sup>31</sup> lɛ<sup>33</sup> tɕɛ<sup>35</sup>

nian <sup>33</sup> taŋ <sup>11</sup>
since

 tio<sup>13</sup> moŋ<sup>55</sup> paŋ<sup>31</sup>, wi<sup>11</sup>  
3.SG LNK CL house since COP 2.SG LNK 1.SG  
noŋ<sup>44</sup> tiaŋ<sup>13</sup>tɕi<sup>33</sup>.  
want, must fight  
'Since his house belongs to you, I will fight.'

In the same vein, it is unnatural to negate the protasis of a counterfactual clause since it would produce a sense of redundancy (compare with the English example 93b).

*Counterfactual Conjunction tʰa<sup>33</sup>χo<sup>44</sup> 'if'*

- (87) a. 

tʰa <sup>33</sup> χo <sup>44</sup>
COUNT:if

 tɛ<sup>11</sup> nɛ<sup>55</sup> noŋ<sup>35</sup> a<sup>55</sup> ɛ<sup>44</sup> ʒaŋ<sup>31</sup>, pi<sup>33</sup> ɛa<sup>55</sup>  
CL person DEM.S.PROX NEG do evil 1.PL then  
a<sup>55</sup> ta<sup>35</sup> nən<sup>55</sup> tio<sup>44</sup> koŋ<sup>33</sup> ŋɛ<sup>33</sup>tɕi<sup>31</sup> ʒu<sup>13</sup>.  
NEG take 3.SG to police DP
- i. **Present Counterfactual**: 'If this man didn't do evil, we wouldn't transfer him to the police.'  
ii. **Past Counterfactual**: 'If this man hadn't done evil, we wouldn't have transferred him to the police.'

*Intra-sentential negation of protasis (with effect of redundancy)*

- b. # pi<sup>33</sup> ta<sup>35</sup> nən<sup>55</sup> tio<sup>44</sup> koŋ<sup>33</sup> ŋɛ<sup>33</sup>tɕi<sup>31</sup> ʒaŋ<sup>55</sup>,  
1.PL take 3.SG to police DP  

ɛ <sup>44</sup> nən <sup>35</sup>
therefore

 tɛ<sup>11</sup> nɛ<sup>55</sup> noŋ<sup>35</sup> ɛ<sup>44</sup> ʒaŋ<sup>31</sup> ʒaŋ<sup>55</sup>.  
CL person DEM.S.PROX do evil DP  
'We transferred him to the police; this man has thus done evil.'

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The **Burmese-Lolo, Tai-Kadai, Miao-Yao** and Chinese languages form a loose *Sprachbund* in Southwest China with hundreds of languages coexisting and assimilating to each other. Shared language patterns include grammaticalized prepositions and aspect particles.

Meanwhile individual languages showcase highly idiosyncratic properties not paralleled in any genetically or areally related language. In his fieldwork, the author encountered a range of **rare sound phenomena**: a bilabial trill in Nuosu, eleven retroflexive consonants in Neasu, five plain versus nasalized vowel pairs in Xong and nine contrastive tones in Kam two of which are undulated.

**Morphologically rare** data sets include the sound-symbolic size prefixes in Nuosu, the ambiperfective aspect particle in Lolo, the two epistemic mood particles in Nase, the singular versus plural classifiers in Northern Kam and the inflectional classifiers in Ahmao.

In the **domain of syntax**, differential case marking and differential word order of four Burmese-Lolo languages are each spectacular in different ways. Moreover, the six negation particles in Sānjiāng Kam and the counterfactual conjunction in Hmu are noteworthy.

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