

On Evidentiality in Nuosu Yi*

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This paper delineates the evidential system of Nuosu Yi, which is found to be comprised of a reported evidential and an inferred evidential. We first describe the semantics of the two evidentials in Nuosu Yi and the interaction between them in terms of double evidential marking. Then we analyze the reported evidential by examining its relation to the verb of speech and (in)direct speech, and demonstrate how reported speech expressions give rise to the reported evidential. Finally, two syntactic tests are used to draw a clear-cut line between the epistemic modal and the inferred evidential in Nuosu Yi.

Key words: evidential, modal, Nuosu Yi

1. Introduction

Evidentiality is generally accepted to be the category which is responsible for asserting the source of information of a statement. Every language has its own way of specifying this source of information. Some languages have dedicated grammatical markers of evidentiality, while others use lexical or periphrastic strategies to specify the source of information, achieving the same pragmatic effect as those dedicated markers.

Based on a study of more than 500 languages, Aikhenvald (2004:63) developed a typology of evidential marking, based on the following information sources:

* This article continues our line of inquiry about evidentiality in Nuosu Yi starting from Liu and Gu (2008). In that article, we explicitly proposed that *di*³⁴ is a reported evidential marker. This paper furthermore offers a comprehensive account of the evidential system of Nuosu Yi. The research has been supported by the MOE Youth Project for Humanities and Social Sciences “A Contrastive Study of Nominal Phrase Structures across Sino-Tibetan Languages” (13YJC740054) and the University of Macau Start-up Research Grant on “Syntactic Structures of Complex Predicates: A Cross-linguistic Perspective” (SRG2015-00001-FAH). We are grateful for all of their support. We would like to thank the anonymous reviewers of our paper and Prof. Hu Suhua for their comments and criticisms, which we were able to take into account in the revision and have substantially improved our analysis in the final version. We are also grateful for discussions of relevant data with Gu Yang, Wu Da, Hu Suhua, Yap Foong-ha, Huang Chenglong, Lama Ziwo, Li Xuping, and Zhang Qingwen. We would also like to thank our informants Hxi Lyrgurse, Qubi Atguop, Chen Quan, and some of their family members in Sichuan Liangshan Yi Autonomous prefecture. This paper would not have been possible without their assistance. Needless to say, all the interpretations and errors are solely our own responsibility.

- (1) a. VISUAL: covers information acquired through seeing.
- b. NON-VISUAL SENSORY: covers information acquired through hearing, and is typically extended to smell, taste, and touch.
- c. INFERENCE: based on visible or tangible evidence, or result.
- d. ASSUMPTION: based on evidence other than visible results; this may include logical reasoning, assumption, or general knowledge.
- e. HEARSAY: for reported information with no reference to those by whom it was reported.
- f. QUOTATIVE: for reported information with an overt reference to the quoted source.

Although evidentials take the various information sources listed in (1) as their primary meaning, they are usually found to acquire epistemic and mirative extensions. For example, an inferred evidential may express an extended meaning of a degree of probability. Therefore, it is sometimes difficult to decide whether a particular particle is modal or evidential in nature. Different hypotheses have been proposed. Palmer (1986) takes the position that evidentiality is included under modality. Chafe (1986) holds an alternative view that modality is included under evidentiality. Recently, more and more linguists (Aikhenvald 2004; De Haan 1999; Faller 2002; Lazard 1999; Speas 2008) have argued for the position that evidentiality is a category in its own right with source of information as its primary meaning, and not a subcategory of any modality. However, it is hard to find diagnostic tests, especially reliable morphosyntactic tests, to decide whether a particle is a modal or an evidential. This paper offers a case study that aims to tackle this problem by probing different syntactic behaviors of modals and evidentials in Nuosu Yi. With these differences in view, Nuosu Yi gives extra weight to the position that evidentiality is a category in its own right.

Two dedicated evidential particles are found in Nuosu Yi.¹ The particle *di*³⁴ is used as a hearsay and quotative evidential. The other particle, *dzo*³⁴*bu*³³, is used as an inferred and assumed evidential. In Nuosu Yi, the first-hand source of information, both visual and sensory, is not marked. In terms of Aikhenvald's (2004) semantic parameters listed in (1), Nuosu Yi does not have overt markers for either (1a) or (1b), whereas (1c) and (1d) are marked by the inferred and assumed evidential *dzo*³⁴*bu*³³, and (1e) and (1f) are marked by the hearsay and quotative evidential *di*³⁴. A similar system is found in another Tibeto-Burman language, Magar (Grunow-Hårsta 2007).²

The evidential system of Nuosu Yi, especially the particle *di*³⁴, has already been discussed in a number of research works (Chen & Wu 1998; Gerner 2013; Hu 2002; Liu & Gu 2008; Walters 2010). Most research on the evidential system in Nuosu Yi has been focused on the particle *di*³⁴, and there has been little discussion about the inferred evidential. This paper aims to provide a comprehensive picture of the Nuosu Yi evidential system, serving as another detailed case study of the

¹ Yi is mainly spoken in the south-western provinces of Sichuan, Yunnan, Guizhou, and Guangxi in China. Across the four provinces, the Yi language has six geographical dialects: northern, eastern, southern, western, southeastern, and central. The data used in this paper are from the Shengzha subdialect of the northern dialect, which serves as a lingua franca in Sichuan Liangshan Yi Autonomous Prefecture. The northern dialect is also called Nuosu Yi, Nosu Yi, Northern Yi, Sichuan Yi, or Liangshan Yi.

² The only difference is that Magar makes a distinction between the hearsay (reported) and the quotative, and the two evidentials are assumed by two different morphemes. According to Grunow-Hårsta (2007), the hearsay and the quotative can co-occur in a Magar sentence, which is not possible in Nuosu Yi.

evidential systems found in Tibeto-Burman languages. We show that the emergence and development of the reported evidential in Nuosu Yi can be traced back to the verb of speech. In addition, we argue that the epistemic modal in Nuosu Yi is distinct from the inferred evidential based on some morphosyntactic tests.

The paper is organized as follows. In §2, we provide a description of the inferred evidential and the reported evidential in Nuosu Yi, and examine the co-occurrence of the two evidentials. In §3, we illustrate the grammaticalization pathway of the reported evidential. In §4, the inferred evidential is compared with the epistemic modal, and two syntactic tests are put forward to tease evidentiality apart from modality. Section 5 is a brief summary.

2. The evidential system of Nuosu Yi

In Tibeto-Burman languages, evidentiality can be expressed either by inflectional affixes as in Qiang (LaPolla 2003), by copulas and auxiliaries as in Lhasa Tibetan (DeLancey 2001), or by particles as in Akha and Lisu (Thurgood 1986; Yu 2003). Nuosu Yi uses particles to mark evidentiality. The evidential system of Nuosu Yi is found to consist of two particles: *di*³⁴ marks reported and quotative evidentiality, and *dzo*³⁴*bu*³³ marks inferred and assumed evidentiality. First-hand (visual or sensory) information is not marked. In this section, we shall describe the two evidential particles and their interactions in terms of double evidential marking.

2.1 The inferred and assumed evidential marker

Nuosu Yi does not make a distinction between the inferred evidential and the assumed evidential. The evidential particle *dzo*³⁴*bu*³³ can be used to indicate that the speaker makes a statement based on evidence he has gathered from observing the result of an action or from general knowledge relevant to a particular event.³

- (2) *i*²¹*si*²¹ *ma*³³*ha*³³ *dzi*²¹ *dzo*³⁴*bu*³³.
 just rain fall INF
 ‘Apparently, it just rained.’

Sentence (2) can be used in a context where the speaker did not witness the rain, but found that everything was wet outside his house. Based on this evidence, he infers that it has just rained. It is important to note that what the speaker actually saw was that everything outside his house was wet. He did not see the process of raining. The semantic core of *dzo*³⁴*bu*³³ is the source of information, indicating that the information is inferred from some clues. Sometimes it is very difficult to make a distinction between the inferred evidential and the epistemic modal. For example, the epistemic modal *tco*³⁴*dzi*²¹ in (3) indicates the speaker’s evaluation of the probability of rain.

³ Abbreviations used in the Nuosu Yi examples are as follows: person is indicated 1,2,3; Acc accusative; ART definite article; CL classifier; COP copula; GEN genitive; INF inferred evidential; LOC locative; LOG logophoric pronoun; NMZ nominalizer; Nom nominative; PFT perfective aspect marker; QUO quotative speech marker; REP reported evidential; RED reduplicant; SENT.TOP sentential topic; SFP sentence final particle; pl plural; sg singular.

- (3) $e^{21}sa^{55}$ $ma^{33}ha^{33}$ dzi^{21} la^{33} $tco^{34}dzi^{21}$.
 soon rain fall come might
 ‘It might rain soon.’ (Chen & Wu 1998:155)

The epistemic necessity modality and the inferred evidentiality represent an overlap of modality and evidentiality in the following way: an epistemic necessity modal encodes the sense of necessary truth judgment, and implicates that the information source is an inferential process. Despite their semantic connections, the two categories, evidentiality and modality, have a different semantic focus. Evidentiality mainly deals with the source of information, while (epistemic) modality is mainly concerned with estimation of the likelihood that (some aspect of) a certain state of affairs is/has been/will be true (or false) in the context of the possible world under consideration. Their semantic difference can be observed by using the diagnostic test of ‘implicature cancellation’, which was originally proposed by Faller (2002:9–10).⁴ The rationale of this test is that although an epistemic modal implicates that the relevant source of information is inferential, such an implicature can be cancelled in rigid contexts. For example:

- (4) a. $*\eta a^{33}$ $ts1^{21}thu^{33}$ $a^{21}dzo^{33}$, ti^{55} $i^{21}si^{21}$ $ma^{33}ha^{33}$ dzi^{21} $dzo^{34}bu^{33}$.
 1sg evidence NEG-have but just rain fall INFNEG
 ‘I don’t have evidence, but apparently it just rained.’
 b. ηa^{33} $ts1^{21}thu^{33}$ $a^{21}dzo^{33}$, ti^{55} $e^{21}sa^{55}$ $ma^{33}ha^{33}$ $dzi^{21}la^{33}$ $tco^{34}dzi^{21}$.
 1sg evidence NEG-have but soon rain fall come might
 ‘I don’t have evidence, but it might rain soon.’

Since $dzo^{34}bu^{33}$ encodes the source of information, such encoded information cannot be cancelled, as is shown in (4a), but $tco^{34}dzi^{21}$ only implicates a source of information, and such an implicature can be cancelled, as is shown in (4b). This test clearly shows that $dzo^{34}bu^{33}$ and $tco^{34}dzi^{21}$ carry different encoded information (semantic focus).

Their semantic differences can also be transparently understood by looking at the internal structure of the two words.⁵ The word $tco^{34}dzi^{21}$ is composed of two morphemes, tco^{34} and dzi^{21} ; tco^{34} can be used as a postposition meaning ‘toward the direction of’, and dzi^{21} is the copular verb meaning ‘become’. The whole word, roughly speaking, means that the speaker holds an attitude that something has a certain degree of probability of developing in some direction. As an epistemic modal, the word $tco^{34}dzi^{21}$ encodes the degree of the speaker’s commitment to a proposition. The word $tco^{34}dzi^{21}$ does not directly say anything about the source of information.

The word $dzo^{34}bu^{33}$ is quite different. It is composed of the two morphemes dzo^{34} and bu^{33} ; dzo^{34} can be traced back to the noun dzu^{21} ‘footprint’, and bu^{33} is an existential verb related to the existence of footprints. The whole word, roughly speaking, means ‘having left a footprint’. When

⁴ This test is attributed to an anonymous reviewer.

⁵ This crucial contrast was brought to our attention by Hu Suhua (personal communication on 12 April 2014). We wish to thank her for her insightful and valuable comments about internal structure and all the information she gave us about the origin of the two words.

the word is used in sentence-final position, it encodes the meaning that the speaker makes a statement based on some evidence. In other words, *dzo³⁴bu³³* encodes the source of information. When *dzo³⁴bu³³* is used, the proposition expressed by the clause is inferred based on some evidence; it implicates that the speaker is not fully committed to the validity of the proposition.

Apart from having different encoded meanings and different compositional meanings based on their internal morphological structures, the two words also differ drastically in syntactic distribution. In Nuosu Yi, modals are immediately adjacent to the predicate verb, but the scope of evidentials extends to the whole proposition. We shall detail their syntactic differences in §4.

Sometimes without direct evidence, a speaker may make a statement based on his world knowledge, marked by the use of sentence-final *dzo³⁴bu³³*. For example:

- (5) *tsh1²¹ tʂɛ⁵⁵ di²¹vi²¹ ko³³ ci³³ la³³ o³⁴ dzo³⁴bu³³.*
 3sg-GEN family guest LOC arrive come PFT INF
 ‘Apparently, the guest of his family has arrived.’

Sentence (5) may be uttered when the speaker knows that his neighbor is waiting for a very important guest. According to local custom, important guests should be welcomed with a firecracker display, and on hearing the sound of firecrackers, the speaker makes a judgment that the guest has arrived. It is important to note that this example should not be regarded as a case of direct auditory evidence, because the speaker does not make the judgment purely based on the sound of firecrackers. Rather the judgment is also based on the local traditional custom that a family should set off firecrackers to welcome the most important guests. With such a custom as a general assumption, the speaker makes the judgment at the moment of hearing the sound of firecrackers.

Take sentence (6a) as another example. The meaning of this sentence is that the speaker makes an inference that Muga is a smoker, either from observing that Muga’s fingers are yellowish, or from logical reasoning based on the fact that the speaker has heard from others that Muga often buys cigarettes. The scope of the sentence-final evidential particle can extend over an action, as well as over a state. For example, in (6b), the scope of *dzo³⁴bu³³* extends over a state, as is shown in (6c).

- (6) a. *mu³³ka⁵⁵ zi³³ ndo³³ dzo³⁴bu³³.*
 Muga tobacco drink INF
 ‘Apparently, Muga smokes.’
 b. *mu³³ka⁵⁵ zi³³ ndo³³ ma³³ ŋu³³ dzo³⁴bu³³.*
 Muga tobacco drink CL COP INF
 ‘Apparently, Muga is a smoker.’
 c. *mu³³ka⁵⁵ zi³³ ndo³³ ma³³ ŋu³³.*
 Muga tobacco drink CL COP
 ‘Muga is a smoker.’

The evidential particle can be peeled off from the sentence without affecting its grammaticality. For example, (6b) and (6c) are both grammatical sentences. The only difference between them is that (6b) has an extra evidential meaning.

2.2 The reported and quotative evidential marker

The particle *di*³⁴ in Nuosu Yi can be used either as a hearsay (reported) evidential (with an unspecific quotative source) or a quotative evidential (with a specific quotative source). When the particle is used as a hearsay evidential, the exact authorship of the information is not specified. When it is used as a quotative evidential, the exact authorship is specified. In other words, the particle is used as a quotative evidential if the reported information has an overt reference to the quoted source, and as a hearsay (reported) evidential marker if the quoted source is not mentioned.

In (7), *di*³⁴ is glossed as hearsay (HEARSAY), because the ‘author’ of the information is not specified.

- (7) *a*²¹*ndi*²¹*hi*³⁴ *ma*³³*ha*³³ *dzi*²¹ *di*³⁴.
 yesterday rain fall HEARSAY
 ‘It rained yesterday (it is said).’

If the speaker of sentence (7) chooses to specify who told him the information, a direct (or indirect) speech construction or a sentential-topic sentence, which is semantically similar to the English verb–complement clause, has to be used, as shown in (8a) and (8b) respectively. If the source of information is specified, then *di*³⁴ functions as a quotative evidential marker, glossed as quotative (QUO), as in (8a).

- (8) a. *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ *a*²¹*ndi*²¹*hi*³⁴ *ma*³³*ha*³³ *dzi*²¹ *di*³⁴.
 Muga say SENT.TOP yesterday rain fall QUO
 ‘Muga said that it rained yesterday.’
 b. *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ *a*²¹*ndi*²¹*hi*³⁴ *ma*³³*ha*³³ *dzi*²¹.
 Muga say SENT.TOP yesterday rain fall
 ‘Muga said that it rained yesterday.’

According to some of our informants, the quotative marker in (8a) in the sentence-final position can be dropped.⁶ The resulting sentence, (8b), becomes a sentential-topic construction, a special sentence structure in Nuosu Yi. Verbs of cognition can also occur in such sentential-topic constructions.⁷

⁶ Actually, during fieldwork, we recorded different views from different informants as to whether sentence-final *di*³⁴ can be omitted or not. Some informants told us that sentence-final *di*³⁴ definitely cannot be omitted, while others were more tolerant, saying it can be omitted.

⁷ Liu & Gu (2008) analyze the word *ko*³³ in (8a) as a complementizer, and (8a) as a verb–complement sentence. Such an analysis cannot explain why the whole sentence exhibits an SVO word order, which is contrary to the general SOV word order in Nuosu Yi. We wish to thank one of the reviewers for offering the following solution to this problem: While most languages construe complement clauses with a complementizer on the complement clause, Nuosu Yi uses a structure in which the subject, the matrix predicate, and *ko*³³ are packed into the extra-clausal topic position, so the English verb–complement sentence {*I said that it rained yesterday.*} is expressed in Nuosu as {‘In my saying, it rained yesterday.’}. Semantically, (8a) might be a verb–complement sentence, but syntactically, it is a sentential-topic sentence. The complement clause looks like a comment clause that is about the sentential topic ‘in my saying’. The same applies to (9) with the sentential topics ‘in my guessing/in my understanding’.

- (9) a. ηa^{33} tha^{21} ko^{33} vo^{55} $tsh1^{34}$ ma^{33} ηi^{21} ha^{33} tci^{21} dzo^{33} .
 1sg guess SENT.TOP pig this CL two hundred CL have
 ‘I guess that this pig weighs two hundred kilograms.’
 b. ηa^{33} hu^{21} ko^{33} a^{33} ηa^{55} mu^{33} hu^{21} $-a^{21}$ $-sa^{55}$.
 1sg look SENT.TOP more good-NEG-looking
 ‘It seems to me that it is not very pretty.’ (Chen & Wu 1998:185–186)

As a reported/quotative evidential marker, di^{34} can mark the indirect speech (of a specific source) or the direct speech (of a specific source). Example (8a) illustrates the use of di^{34} in indirect speech, and Example (10) illustrates the use of di^{34} in direct speech. In a direct speech sentence, the sentence-final quotative marker cannot be dropped. This can be easily observed when first-person or second-person pronouns are used in a quotation. Since the quotative markers in (10) immediately follow direct speech clauses, they cannot be dropped. Otherwise, the sentence would become ungrammatical.

- (10) ηa^{33} ko^{33} tco^{33} : [nur^{33} ci^{33} mi^{33} ?], di^{34} ηa^{33} ko^{33} nur^{33} ,
 1sg 3sg-Acc to 2sg what name QUO ask when
 $tsh1^{33}$ di^{21} ko^{33} : [vu^{55} ka^{33} mi^{33}], di^{34} .
 3sg-Nom say SENT.TOP Vuga name QUO
 ‘When I asked him, “What is your name?”, he said, “I am called Vuga.”’ (Zhang & Cai 1995:161)

Interestingly, when a third-person pronoun is used in a quotation, things become very tricky in Nuosu Yi. Let us consider the situation where a girl named Aguo, as the external speaker, said the following two sentences.

- (11) a. mu^{33} ka^{55} hi^{21} ko^{33} $tsh1^{33}$ i^{21} ηi^{21} a^{21} kha^{55} di^{34} .
 Muga say SENT.TOP 3sg-Nom today uncomfortable QUO
 ‘Muga_i said that he_j was uncomfortable today.’
 b. mu^{33} ka^{55} hi^{21} ko^{33} i^{33} i^{21} ηi^{21} a^{21} kha^{55} di^{34} .
 Muga say SENT.TOP LOG today uncomfortable QUO
 ‘Muga_i said that he_i was uncomfortable today.’

The third-person pronoun in Example (11a) can only refer to a person different from Muga. When the external speaker, Aguo, wants to report what Muga said about himself, she has to use the logophor i^{33} , as in (11b). When the logophor is used, it conveys a strong sense that the external speaker, Aguo, is repeating what Muga said about himself.

Aikhenvald (2004:133) mentions that a number of African languages use logophoric pronouns as tokens of indirect speech. In Nuosu Yi, however, we are surprised to find that the logophor i^{33} can also occur in semi-direct speech in narratives.⁸ The following two examples are found in two

⁸ We wish to thank one of the reviewers for pointing this out to us. In semi-direct speech, some but not all deictic centers are converted. The speaker integrates two perspectives. Semi-direct speech typically conveys

short stories in Chen & Wu (1998). The ordinary and logophoric pronouns are underlined in the two sentences.

- (12) a. ni⁵⁵ *khur*³³ i³³ *ɔ*³³ *ka*³³ *si*³³ *kɔ*³⁴ *sa*³³ *o*³⁴ *di*³⁴.
 your dog LOG pound dead completely PFT QUO
 ‘I have already pounded your dog dead’ (the elder brother said). (Chen & Wu 1998:217)
- b. *si*³³ zu³³ *ma*³⁴ *su*³³ *hi*²¹ *ko*³³ *tshɿ*²¹ *mu*³³ *o*³⁴ *ko*³³,
 god CL ART say SENT.TOP this.way if
nu³³ *sɿ*²¹ *ŋi*²¹ *dzi*²¹ *ko*³³ *nu*³³ *zɿ*³³ *tsha*³³ *thi*²¹ *si*³⁴
 2sg tomorrow wake when hot.water scoop take
i³³ *bɿ*³⁴ *la*³³, i³³ *si*²¹ *ko*³⁴ *phu*³³ *mo*³³ *di*³⁴.
 LOG give come LOG take LOC spray SFP QUO
 ‘The god said, “If this is the case, when you wake up tomorrow, you scoop some hot water and give it to me, I will take it and spray it around.”’ (Chen & Wu 1998:267)

Sentence (12a) is taken from a short story about two brothers. In the story the lazy elder brother borrowed a dog from his younger brother, and killed the dog. When the younger brother asked his elder brother, ‘Where is my dog?’, the elder brother answered with (12a). This sentence combines direct and indirect points of view. The use of the logophoric pronoun shows that the sentence is in indirect speech; however, the co-occurrence of the second-person possessive pronoun *ni*⁵⁵ shows that the sentence is in direct speech. Therefore, we would treat such examples as semi-direct speech, which is a stylistic means of increasing vividness. Sentence (12b) is from a story based on the Midas Touch myth, a story of a greedy king who dreams of turning everything he touches into gold. A god helps the king realize his dream, but he ends up turning his own daughter into gold. So the king asks the god to undo everything. In (12b), the god tells the king how to return everything to its original state. In this sentence, the logophor is used with the second-person pronoun *nu*³³, indicating the sentence is an example of semi-direct speech.

It is worth mentioning that we also found in the same grammar book many cases in which the first-person singular pronoun *ŋa*³³ is used in direct speech. Notice that when the first-person pronoun *ŋa*³³ is used in quotation, there may be ambiguity between direct speech and indirect speech, and the ambiguity, as one of the reviewers suggests, can be eliminated by some phonological clues. If Example (13a) were intended as a direct quotation, there would be a small pause after *ko*³³ and a rise in pitch for the direct quotation. If it had been intended as an indirect quotation, there would be no rise in pitch. Depending on whether it is a direct or an indirect quotation, the first-person pronoun would be the internal speaker (direct quotation) or external speaker (indirect quotation). When (13a)

an expressive or emotional value. Here are some English examples. Examples (i)–(iii) are taken from Radford (1988:299). We treat (iv) as a semi-direct speech example, because the first-person pronoun is used to refer to the subject in the matrix clause, which is similar to the case in direct speech.

- (i) ‘Will I get a degree?’ John wondered. (direct speech)
- (ii) John wondered whether he would get a degree. (indirect speech)
- (iii) John_i wondered would he_i get a degree. (semi-indirect speech)
- (iv) John_i wondered would I_i get a degree. (semi-direct speech)

is interpreted as direct speech, it has the same meaning as (13b), but when (13a) is interpreted as indirect speech, the first-person pronoun refers to the external speaker, Aguo in this case.

- (13) a. *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ *ŋa*³³ *i*²¹*ŋi*²¹ *a*²¹*kha*⁵⁵ *di*³⁴.
 Muga say SENT.TOP 1sg today uncomfortable QUO
 ‘Muga said that I was uncomfortable today.’
 ‘Muga said, “I am uncomfortable today.”’
- b. *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ *i*³³ *i*²¹*ŋi*²¹ *a*²¹*kha*⁵⁵ *di*³⁴.
 Muga say SENT.TOP LOG today uncomfortable QUO
 ‘Muga_i said that he_i was uncomfortable today.’

2.3 Co-occurrence of the two evidentials

As manifested in many languages, two evidentials can co-occur in a sentence. Aikhenvald (2004:88) addresses this phenomenon, saying, ‘marking evidentiality more than once is different from the multiple expression of any other category: it is never semantically redundant. Having several evidentiality markers in one clause allows speakers to express subtle nuances relating to types of evidence and information source, either interrelated or independent of one another.’ LaPolla (2003:69–70) gives the following illustrative example of double marking of evidentiality in Qiang:

- (14) *oh, the: zɔ̃ zete-k-u!*
 oh 3sg drum beat-INF-VIS
 ‘Oh, he WAS playing a drum!’

In (14), *-k* is the inferred evidential, and *-u* is the visual evidential. The situation in this sentence is as follows: the speaker first guessed that someone was playing a drum next door, and then went next door and saw the person holding a drum or drumsticks. The combination of the two evidentials has the sense of ‘as I had guessed and it’s now pretty well confirmed’.

The double marking of evidentiality in Nuosu Yi can be realized by two co-occurrence patterns: reported + inferred, or inferred + reported. The two patterns have different meanings because of the different scopes of evidentials. For example:

- (15) a. *tshɿ*³³ *bo*³³ *o*³⁴ *di*³⁴.
 3sg-Nom go PFT REP
 ‘He left (it is said).’
- b. *tshɿ*³³ *bo*³³ *o*³⁴ *dzo*³⁴*bu*³³.
 3sg-Nom go PFT INF
 ‘Apparently, he left.’
- c. *tshɿ*³³ *bo*³³ *o*³⁴ *di*³⁴ *dzo*³⁴*bu*³³.
 3sg-Nom go SFP REP INF
 ‘Apparently, it was said that he had already had the intention of leaving the place.’

In (15c), both the reported and the inferred evidentials are used. The difference between (15b) and (15c) is that the former indicates that the person referred to by the subject—say, Muga—seems to

have left, but the latter only indicates that Muga has the intention to leave, but has not yet left. When uttering (15c), the speaker feels a little disappointed and sad as it seems that Muga has already had the intention to depart. Maybe the speaker heard that Muga himself said so, or someone else said so. The speaker first has the impression that Muga wants to leave. Then, after observing Muga’s preparations for departure, the speaker utters (15c) to show disappointment and sadness.⁹

When the reported evidential and inferred evidential are stacked as inferred + reported, the inferred evidential is in the scope of the reported. For example:

- (16) *mu*³³*ka*⁵⁵ *bo*³³ *o*³⁴ *dzo*³⁴*bu*³³ *di*³⁴.
Muga go PFT INF REP
‘Muga apparently left (it is said).’

The situation of this sentence is that the external speaker—say, Aguo—heard from someone—say, Vuga—that Muga seemed to have left. Aguo’s source of information is Vuga. It is Vuga who made the inference that Muga had left, based on his observation that Muga was not in the hotel. The reported evidential marks Aguo’s source of information, whereas the inferred evidential indicates that the departure of Muga is apparent to Vuga.

If the source of information is specified, the sentence will be in the form of a reported speech construction, as in (17a).

- (17) a. *vu*⁵⁵*ka*³³ *hi*²¹ *ko*³³ [*mu*³³*ka*⁵⁵ *bo*³³ *o*³⁴ *dzo*³⁴*bu*³³ *di*³⁴].
Vuga say SENT.TOP Muga go PFT INF QUO
‘Vuga said that Muga had apparently left.’
‘Vuga said, “Muga apparently left.”’
b. *vu*⁵⁵*ka*³³ *hi*²¹ *ko*³³ [*mu*³³*ka*⁵⁵ *bo*³³ *o*³⁴ *dzo*³⁴*bu*³³].
Vuga say SENT.TOP Muga go PFT INF
‘Vuga said that Muga had apparently left.’

If we delete the sentence-final quotative marker, we shall have a sentential-topic construction (17b), and the comment clause is marked with the inferred evidential.

3. Grammaticalization of the reported evidential

As an alternative to the use of a reported evidential, a ‘direct speech’ construction can also serve the function of specifying the source of information. In (18), the exact source of the reported information, Muga, is specified by being the subject of the verb of speech.

⁹ In Nuosu Yi, the morpheme *o*³⁴ can be used either as a perfective aspect marker or a sentence-final particle indicating a change of state. It is similar to the ambiguous Mandarin Chinese *-le*. The sentence {*Tā zǒu-le*. (he leave LE)} means ‘he left’. In this sentence, the verb-final *-le* is used as a perfective aspect marker. In contrast, the sentence {*Wǒ zǒu-le*. (I leave LE)} means ‘I want to leave’. In this sentence, the morpheme *-le* is used as a sentence-final particle, indicating that the speaker has changed his idea from staying in the place to leaving the place.

- (18) *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ [*i*³³ *a*²¹-*bo*³³ *o*³⁴] *di*³⁴.
 Muga say SENT.TOP LOG NEG-go SFP QUO
 ‘Muga_i said that he_i would not go.’

The subject of the embedded clause in (18) is the logophoric pronoun, which must be co-referential with the subject in the sentential topic. If the first-person pronoun *ηa*³³ is used in the comment clause, it may refer to either the external speaker or the internal speaker. For example, the pronoun *ηa*³³ in (19) may refer either to the person who utters the whole sentence, or to the internal speaker, Muga.

- (19) *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ [*ηa*³³ *bo*³³ *dε*³³-*a*²¹-*du*³³] *di*³⁴.
 Muga say SENT.TOP 1sg-Nom go NEG-need QUO
 ‘Muga said that I need not go.’ (External speaker reading)
 ‘Muga said, “I need not go.”’ (Internal speaker reading)

The contrast shown in (18) and (19) suggests that *i*³³ is like a reflexive pronoun bound by the antecedent. As long as there is a semantic binder, no matter whether the binder is syntactically overt or not, the use of the logophoric pronoun is valid. For example, (20a) is also a grammatical sentence, as long as the referent of the logophoric pronoun is identifiable from the context. Examples (20a) and (20b) have almost the same meaning. The only difference between them is that (20a) indicates that the information is simply a direct quotation. Suppose (20a) and (20b) are said by Muga. Then (20a) indicates that Muga has just heard another man, Vuga, say that Vuga himself would not come. Muga is just repeating what Vuga has said. In contrast, (20b) indicates that Muga has heard (somebody say) that Vuga will not come.

- (20) a. *i*³³ *a*²¹-*la*³³ *o*³⁴ *di*³⁴.
 LOG NEG-COME SFP REP
 ‘He will not come (as he himself said).’
 b. *tshɿ*³³ *a*²¹-*la*³³ *o*³⁴ *di*³⁴.
 3sg-Nom NEG-COME SFP REP
 ‘He will not come (it is said).’

An alternative way to specify the source of information would be the use of the third-person pronoun rather than the logophor, as shown in (21).

- (21) *mu*³³*ka*⁵⁵ *hi*²¹ *ko*³³ [*tshɿ*³³ *a*²¹-*bo*³³ *o*³⁴] *di*³⁴.
 Muga say SENT.TOP 3sg-Nom NEG-go SFP QUO
 ‘Muga_i said that he_k would not go.’

There are two different ways in Nuosu Yi to express reported speech. The first way is shown in (21), where the subject and the verb ‘say’ are packed with a sentential-topic marker, followed by a comment clause. The second form is shown in (22):

- (22) a. *mu³³ka⁵⁵ ηa⁵⁵ tɕo²¹ [i³³ a²¹-la³³ o³⁴] di³⁴.*
 Muga 1sg to LOG NEG-COME SFP QUO
 ‘Muga_i said to me that he_i would not come.’
- b. *mu³³ka⁵⁵ ηa⁵⁵ tɕo²¹ [i⁵⁵ a³⁴ta³³ ηa⁵⁵mo²¹ ma³³ ηur³³] di³⁴.*
 Muga 1sg to LOG father teacher CL COP QUO
 ‘Muga_i said to me that his_i father was a teacher.’ (Chen & Wu 1998:182)

In each of the above sentences, there are three arguments altogether. Apparently, the sentence lacks a three-place predicate to link the three arguments. This forces us either to say that the sentence-final *di³⁴* serves as the main verb in (22), or to say that the main verb is missing in (22). Although sentences like (22a) and (22b) can be easily found in a number of Nuosu Yi grammar books, our native speaker informants felt uncomfortable with such sentential structures. They informed us that they felt that something was missing in the sentence. A verb of speech has to be added. It would be better to change example (22a) into the following form:

- (23) *mu³³ka⁵⁵ ηa⁵⁵ tɕo²¹ hi²¹ ko³³ i³³ a²¹-la³³ o³⁴ di³⁴.*
 Muga 1sg to say SENT.TOP LOG NEG-COME SFP QUO
 ‘Muga_i said to me that he_i would not come.’

This example clearly shows that the sentence-final *di³⁴*, at least for some native speakers, cannot be taken as a lexical verb of speech. It also shows that there are at least three different forms of reported speech in Nuosu Yi, summarized in (24). The main verb *hi²¹* and the sentence-final *di³⁴* seem to have formed a discontinuous frame. The collocation force between them is so strong that the sentence-final *di³⁴* can even compensate for the absence of the main verb *hi²¹*.

- (24) a. subject + *hi²¹* + SENT.TOP [...] *di³⁴* (without a recipient)
 b. subject + [to sb.] *hi²¹* + SENT.TOP [...] *di³⁴* (with a recipient)
 c. subject + [to sb.] [...] *di³⁴*

Another interesting point to note is that *di²¹*, with a different tone, can be used as a lexical verb of speech.¹⁰ For example:

- (25) a. *nu³³ di²¹ ko³³ tʃi³³ a²¹-la³³ o³⁴ di³⁴, ηur³⁴ ηur³³?*
 2sg say SENT.TOP 3sg NEG-COME PFV QUO COP COP
 ‘You said that he would not come, right?’
- b. *nu³³ di²¹ ko³³ mu³³ ʃi³³ di³⁴?*
 2sg say SENT.TOP what QUO
 ‘What did you say?’

In (25) the verb of speech is *di²¹*. Of special interest is the fact that in (25b) the lexical verb of speech and the sentence-final quotative marker, which differ only in tones, co-occur. Taking these

¹⁰ There are three citation tones in Nuosu Yi: 55, 33, and 21. There is another sandhi tone, 34, involved in various phonological processes. Nuosu Yi has only these four tones.

two pieces of evidence into consideration, we argue that with some phonological (tonal) change, the original verb of speech has grammaticalized into a quotative marker, and from the quotative marker into a reported evidential marker.

Nuosu Yi offers us an illuminating example of how reported speech expressions give rise to the reported evidential, since the links in the chain of development can be easily identified in this language. The origin of the reported evidential in Nuosu Yi can be traced back to the lexical verb of speech, a typical phenomenon found in many Tibeto-Burman languages.

Gerner (2013) makes a comparative study of the development of the verb of speech (SAY). According to his analysis, the ‘say’ verb *di in proto-Yi developed a specific quotative use in Proto-Northern Yi, and further developed an unspecific quotative use in Pre-Nuosu. Based on the first-person constraint he observed in Nuosu Yi, which states that the future tense marker *mi*³⁴ can only be used with the first-person pronoun, Gerner argues that from the unspecific quotative use, *di branched into *di^H (unspecific quotative) and *ni^H (future time reference) in Old Nuosu. In Modern Nuosu Yi, the ‘say’ verb *di*²¹, the reportative *di*³⁴, the quotative *di*³⁴, and the future tense marker *mi*³⁴ can all be traced back to the ‘say’ verb *di in Proto-Yi. Such a diachronic development is also supported by data from other Northern Yi dialects, such as Neasu and Nasa. Gerner’s focus in that paper is on his proposal that the verb of speech can develop into a future tense marker, according to some cross-dialectal evidence and the evidence of the first-person constraint observed in Nuosu Yi, which is reminiscent of evidential markers. In the rest of this section, we shall briefly comment on the grammaticalization of the reported evidential from the perspective of syntactic change.

As we have shown in (25), *di*²¹ can be used as a main verb in reported speech. Since *di*²¹ and *hi*²¹ are almost interchangeable, as illustrated in (26), the redundancy will trigger and force one of them to change its meaning and function.¹¹

- (26) a. *su*³³ *hi*²¹ *ko*³³ *nu*³⁴ *ŋi*³³ *ko*³³ *tcho*³³ *di*³⁴.
 others say SENT.TOP 2sg also 3sg-Acc participate QUO
 ‘Others say that you also participated in it.’ (Hu 2002:246)
- b. *su*³³ *di*²¹ *ko*³³ *nu*³⁴ *ŋi*³³ *ko*³³ *tcho*³³ *di*³⁴.
 others say SENT.TOP 2sg also 3sg-Acc participate QUO
 ‘Others say that you also participated in it.’

If we assume that the origin of the reported speech marker is the lexical verb of speech, then there would be two ‘say’ verbs in (26b). The hypothetical sentence would be (27a).

¹¹ We wish to thank one of the reviewers for pointing out to us that *di*²¹, the older form, is in the process of being replaced by *hi*²¹, since *di*²¹ is not a fully-fledged speech verb any more in some contexts. For example:

- (i) *tshr*³³ *do*²¹ *hi*²¹ *o*³⁴.
 3sg word say PFT
 ‘He has spoken.’
- (ii) **tshr*³³ *do*²¹ *di*²¹ *o*³⁴.
 3sg word say PFT
 Intended meaning: ‘He has spoken.’

- (27) a. *su*³³ *di*²¹ *ko*³³ [*nuu*³⁴ *ni*³³ *ko*³³ *tcho*³³] *di*²¹.
 others say SENT.TOP 2sg also 3sg-Acc participate say
 Intended meaning: ‘Others say that you also participated in it.’
- b. *su*³³ ~~*di*²¹~~ ~~*ko*³³~~ [*nuu*³⁴ *ni*³³ *ko*³³ *tcho*³³] *di*²¹.
 others say SENT.TOP 2sg also 3sg-Acc participate say
 Intended meaning: ‘Others say that you also participated in it.’
- c. *su*³³ *di*²¹ *ko*³³ [*nuu*³⁴ *ni*³³ *ko*³³ *tcho*³³] *di*³⁴.
 others say SENT.TOP 2sg also 3sg-Acc participate QUO
 ‘Others say that you also participated in it.’

Example (27a) is a typical SVOV serial verb construction. Either of these two verbs can be grammaticalized. If the first verb is grammaticalized and removed together with the sentential-topic marker, a sentence with an SOV word order will appear, as in (27b). This word order is not found in Nuosu Yi. Therefore, we are not going to explore this possibility.

If the second verb in the sentence-final position is grammaticalized, due to the semantic redundancy with the first ‘say’ verb, the sentence-final verb will become a functional element. In this process, the tone of the sentence-final verb changed from a primary tone into a sandhi tone, while its syntactic function was reanalyzed as a quotative marker. At this stage, the erstwhile verb of speech began to assume the function of marking a quotation.

The reported evidential may be derived from the bi-clausal structure illustrated in (27c). When the dependent quotative clause undergoes de-subordination, the erstwhile quotative marker in the sentence-final position may become a reported evidential. Aikhenvald (2004:135) refers to the de-subordinated clause shown in (28b) as free indirect speech. When the free indirect speech becomes accepted as an independent sentence, the quotative marker then becomes a reported evidential, as shown in (28c).

- (28) a. *mu*³³ *ka*⁵⁵ *hi*²¹ *ko*³³ [*i*³³ *a*²¹-*la*³³ *o*³⁴ *di*³⁴].
 Muga say SENT.TOP LOG NEG-COME SFP QUO
 ‘Muga_i said that he_i would not go.’
- b. ~~*mu*³³ *ka*⁵⁵~~ ~~*hi*²¹~~ ~~*ko*³³~~ [*i*³³ *a*²¹-*la*³³ *o*³⁴ *di*³⁴].
 Muga say SENT.TOP LOG NEG-COME SFP QUO
 ‘(Muga_i said that) he_i would not go.’
- c. *mu*³³ *ka*⁵⁵ *a*²¹-*la*³³ *o*³⁴ *di*³⁴.
 Muga NEG-COME SFP REP
 ‘Muga will not come (it is said).’

During this process, the ‘say’ verb and the sentential-topic marker, together with the subject, are removed. Thus, a bi-clausal structure becomes a simple clause. This kind of syntactic change is in conformity with Roberts & Roussou’s (2008) idea of grammaticalization via structural simplification. The motivation for deletion of the main clause might be a pragmatic need for vague specification of the source of information. With such a de-subordination process, the erstwhile embedded reported clause becomes the matrix clause marked by the sentence-final reported evidential. The grammaticalization pathway of the Nuosu Yi reported evidential can be schematized as shown in Figure 1.

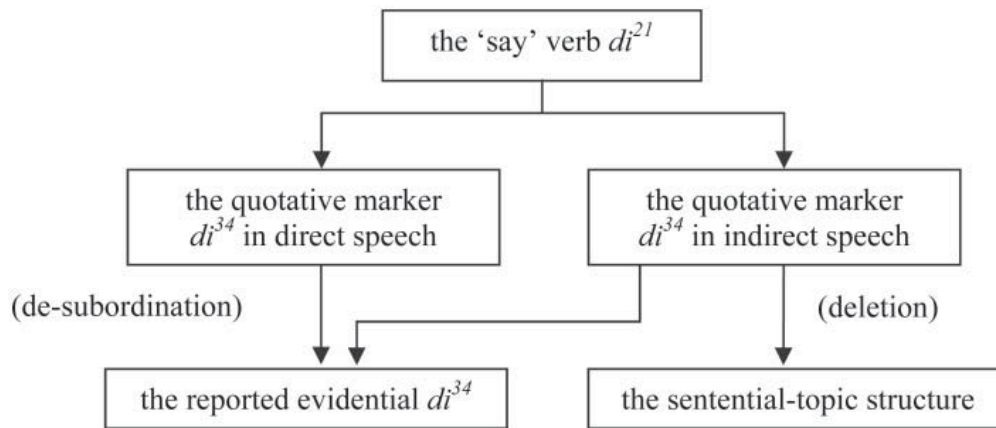


Figure 1: Grammaticalization pathway of Nuosu Yi reported evidential

From the figure, we can see that there is a clear relation between the ‘say’ verb di^{21} , the quotative marker (in both direct speech and indirect speech), and the reported evidential. We propose that both the quotative marker and the reported evidential are grammaticalized from the ‘say’ verb di^{21} in Nuosu Yi. The grammaticalization process is triggered by the semantic redundancy between two ‘say’ verbs: hi^{21} and di^{21} . By a de-subordination process which fulfills the purpose of obscuring the exact source of information, the erstwhile embedded reported clause becomes the matrix clause, and correspondingly the erstwhile sentence-final quotative marker becomes the reported evidential.

4. Morphosyntactic tests to differentiate the inferred evidential from the epistemic modal

Nuosu Yi has a set of modal verbs, both epistemic and deontic, to express meanings related to what is possible given what the speaker knows and meanings related to what is required or permitted. Between these two types of modals, epistemic modals are more related to evidentiality. Because of their semantic similarity, it is difficult to differentiate an epistemic modal from an inferred evidential, despite their clearly distinct semantic focus: epistemic modals mainly deal with speakers’ evaluation of the chance of an event occurring, while inferred evidentials mainly deal with source of information. For example, the meaning of (29a) is that there is a possibility that it will rain in a while; while the meaning of (29b) is that, based on some evidence, the speaker makes an inference that it rained just now.

- (29) a. ε^{21} sa^{55} ma^{33} ha^{33} dzi^{21} la^{33} tco^{34} dzi^{21} .
 soon rain fall come might
 ‘It might rain soon.’
 b. i^{21} si^{21} ma^{33} ha^{33} dzi^{21} dzo^{34} bu^{33} .
 just rain fall INF
 ‘Apparently, it just rained.’

Aikhenvald (2004), among many others (e.g. De Haan 2005; Lazard 1999; Speas 2008; Willett 1988), argues for the position that evidentiality is a category in its own right with source of information as its primary meaning, and not a subcategory of any modality, or of tense-aspect. However, so far, no clear-cut morphosyntactic tests have been proposed to determine whether a particle is a modal or an evidential. We found that the epistemic modal and the inferred evidential in Nuosu Yi are different in their syntactic behaviors.

We can use the following two morphosyntactic tests to differentiate evidentiality from modality in Nuosu Yi. With these differences in sight, Nuosu Yi gives extra weight to the position that evidentiality is a category in its own right. Firstly, epistemic modals can be negated, but evidentials cannot be negated. This can be observed in the following example. In (30a), the epistemic modal can be negated by the negative infix. However, the inferred evidential in (30b) cannot be negated by the negative infix.

- (30) a. ε^{21} sa^{55} ma^{33} ha^{33} dzi^{21} la^{33} $t\text{co}^{34}$ - a^{21} - dzi^{21} .
soon rain fall come NEG-might
‘It might not rain soon.’
b. $*i^{21}$ si^{21} ma^{33} ha^{33} dzi^{21} dzo^{34} - a^{21} - bu^{33} .
just rain fall NEG-INF
Intended meaning: ‘Not apparently, it just rained.’

Secondly, epistemic modals can be reduplicated to form a reduplicative polar interrogative, but evidentials cannot, as is shown in (31b).

- (31) a. ε^{21} sa^{55} ma^{33} ha^{33} dzi^{21} la^{33} $t\text{co}^{34}$ dzi^{21} - dzi^{33} ?
soon rain fall come might-RED
‘Might it rain soon?’
b. $*i^{21}$ si^{21} ma^{33} ha^{33} dzi^{21} dzo^{34} bu^{34} - bu^{33} ?
just rain fall INFR-RED
‘Did it apparently rain just now?’ (Intended meaning)

In Nuosu Yi, when a question is formed on a clause marked for evidentiality, the event (action/state) of the clause can be questioned, but the source of information cannot. For example, the situation described in (32) might be that the speaker met Muga’s father, and asked him whether Muga was ready to go. In this case, what is being questioned is not the source of information, but Muga’s readiness to go.

- (32) mu^{33} ka^{55} bo^{34} bo^{33} o^{34} di^{34} ?
Muga go-RED PFT REP
‘People wonder whether Muga is ready to go.’

If the speaker has heard that Muga has left, he may ask for confirmation from other people as demonstrated in (33).¹²

¹² We wish to thank Lama Ziwo (personal communication on 2 November 2012) for suggesting to us that da^{21} is an interrogative particle asking for confirmation of the speaker’s presupposition in Nuosu Yi.

- (33) *mu*³³*ka*⁵⁵ *bo*³⁴ *o*³⁴ *di*³⁴ *da*²¹?
 Muga go PFT REP SFP
 ‘(It is said) Muga has left, right?’

In this case, the whole sentence is more like a statement rather than an interrogative. Pragmatically, the speaker can tell sensational news in such a ‘distancing’ manner. Although the speaker is quite sure of the validity of the news, he does not vouch for it. In this sense, the interrogative sentence (33) is more like a declarative sentence. It is obvious that the speaker is quite sure of Muga’s departure, and he assumes too that the hearer also has some information about the same event. The speaker simply wants to ask for further confirmation from the hearer. In this case, the speaker is not questioning the source of information as well. He is discussing the event by pretending that he is not quite sure about Muga’s departure. If the hearer turns out to be completely innocent of the event, the hearer will question the speaker’s source of information as in (34), which does not contain the reported evidential marker.

- (34) *kha*⁵⁵*di*³³ *hi*³³ *su*³³ *ɲu*³³?
 who say NMZ be
 ‘Who said it?’

Examples (32) and (33) show that when a question is formed on a clause marked with evidentiality, only the event described in the clause can be questioned.

5. Conclusion

This paper examines the evidential system in Nuosu Yi. The evidential system in Nuosu Yi has two terms: inferred and reported. We detail the semantics of the two evidentials, and the interaction between them in terms of double evidential marking.

We also argue that in Nuosu Yi there is a close relation between the ‘say’ verb *di*²¹ and the quotative and reported evidential. We propose that both the quotative and the reported evidentials are grammaticalized from the ‘say’ verb *di*²¹ in Nuosu Yi through structural simplification. The grammaticalization process is triggered by the semantic redundancy between two ‘say’ verbs: *hi*²¹ and *di*²¹. By a de-subordination process which fulfills the purpose of obscuring the exact source of information, the erstwhile embedded reported clause becomes the matrix clause, and correspondingly the erstwhile sentence-final (in)direct speech marker becomes the reported evidential.

In Nuosu Yi the inferred evidential cannot be negated, nor can it be reduplicated to form interrogatives. By contrast, epistemic modals can be negated and reduplicated to form interrogatives. Based on these syntactic differences, together with some semantic and morphological evidence, we differentiate the epistemic modal from the inferred evidential in Nuosu Yi, thus substantiating the claim that evidentiality constitutes an independent category distinct from modality.

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涼山彝語的示證範疇

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本文對涼山彝語示證系統所包含的推測示證範疇和引語示證範疇進行了描寫，對這兩種示證範疇的語義以及它們共現時所表達的語義進行了分析。我們從語法化的角度對涼山彝語中引語示證範疇，話語動詞和直／間接引語之間的關係進行了討論。另外，我們發現涼山彝語中的兩個句法測試能幫助我們區分表示可能性的情態範疇和表示推測的示證範疇。

關鍵詞：涼山彝語，示證範疇，情態範疇

Issues in the Reconstruction and Affiliation of Proto-Miao-Yao*

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In this paper, I present a new look at the phonological reconstruction of Proto-Miao-Yao (PMY). Particular attention is devoted to the outstanding problems concerning the reconstruction of initial consonants and clusters. A reconstruction of PMY's velarized feature is proposed as a key to understanding the complex development in modern dialects. Based on the new reconstruction system, I discuss the viability of some proposed lexical items shared between Miao-Yao and Chinese. A modest goal is to place long-range comparisons on firmer ground, based on established sound correspondences.

Key words: East Asian languages, genetic relationship, Miao-Yao, phonological reconstruction, velarization

1. Introduction

The discussion in this paper focuses on my reconstruction of a Proto-Miao-Yao (PMY) velarized feature, which in turn is related to several core issues regarding initial and rime reconstructions. Velarization is characterized by the raising of the back of the tongue towards the velum that accompanies a primary articulation. It influences, and at the same time is shaped by, the surrounding consonants and vowels. A comprehensive treatment of the whole reconstruction system has to be elaborated elsewhere, but I will select a set of examples to illustrate the idea here. Comments on lexical comparisons between Miao-Yao (MY) and Chinese are made with reference to this new reconstruction system.¹

2. The reconstruction of PMY onsets

2.1 Labial onsets

2.1.1 Plain and prenasalized stop onsets

In several Yao dialects, the velarized feature is attested as -w- or -j-, depending on the vowels. We see in Table 1, for instance, that the velarized feature has induced Luoxiang (Lx) -w- and brought

* I would like to thank Nathan Badenoch, Jackson Sun, and two anonymous reviewers for their comments on the paper. Any errors are mine.

¹ The MY dialectal materials are from Wang & Mao (1995), unless otherwise indicated. White Hmong forms are from Ratliff (2010), Old Chinese forms are from Schuessler (2007), and Tibeto-Burman forms are from Matisoff (2003).

about Lanjin (Lj) spirant reflexes (f- and v-). In Jiangdi (Jd), it has become -j- when occurring with *-a-, which must have been relatively front in this dialect.

Table 1: Plain and velarized labial onsets in Yao dialects.

		Lx	Lj	Jd	
To know	A	pei	pei	pei	*p-
To dream	C	bei	bei	bei	*mp-
To sleep	C	pwei	fei	pwei	*pʷ-
To boil	C	bwei	vei	bwei	*mpʷ-
To rake	A	pa	pa	pa	*b-
Thin	D	pwa	fa	pje	*bʷ-
Father	B	pwa	fa	—	*pʷ-
To mend	B	bwa	va	bje	*mpʷ-
Chaff	D	bwa	va	bje	*mphʷ-
Step	C	bwa	va	bje	*mbʷ-

(The capital letters A, B, and C in all the tables indicate early tone classes. The letter D indicates an early checked syllable; thus the words ‘thin’ and ‘chaff’ go back to *bʷak and *mphʷak, respectively).

When occurring with the front vowel *e, the velarized feature has induced -j-. Before the high vowels *i and *u, the reflex of the velarized feature has been lost in Lx and Lj (probably through redundancy), but is attested as the expected /-j-/ or /-w-/ in Jd.

Table 2: Labial onsets with *e, *i and *u in Yao dialects

		Lx	Lj	Jd	
Satisfied	B	peu	pi:u	peu	*peu
Fruit	B	pjeu	pjou	pjou	*pʷeu
Float	A	bjeu	bjou	bjou	*mbʷeu
Bedbug	A	pi	pi	pje	*pʷi
Three	A	pu	pu	pwo	*pʷu
Burn	B	pu	pu	pw(o)	*pʷu
Name	C	bu	bu	bwo	*mpʷu
Hand	B	pu	pu	pwo	*bʷu

In some cases, Miao dialects supply further evidence for the early velarized feature. Some Western Miao dialects such as Shimen (Sm), for instance, show a sibilant reflex of the velarized labial onsets, but only when followed by the high vowel -i. Table 3 shows the corresponding forms in Jiangdi Yao, Shimen (Western Miao), and Jiwei (Northern Miao) dialects.

Table 3: PMY plain and velarized labial onsets

		Jd	Sm	Jw	
To know	A	pei	pau	—	*p-
To dream	C	bei	mpu	mpei	*mp-
To sleep	C	pwei	py	pə	*pʷ-
To boil	C	bwei	mpau	—	*mpʷ-
Father	B	—	tsi	pɑ	*pʷ-
To mend	B	bje	ntsi	mpɑ	*mpʷ-
Fruit	B	pjou	tsi	pi	*pʷ-
Bedbug	A	pje	—	—	*pʷ-
Three	A	pwo	tsi	pu	*pʷ-
Name	C	bwo	ntsi	mpu	*mpʷ-

Failing to consider various conditioning factors, Wang & Mao (1995) have reconstructed many complex labial onsets for the preceding words, basically taking all modern reflexes back to the proto stage.

Table 4: PMY labial onsets and Wang & Mao's (1995) complex labial onsets

PMY	Wang & Mao	Examples
*p-	*p-	to know
*pʷ-	*pw-	to sleep
	*pj-	bedbug
	*pts-	fruit
	*pwts-	three, father
*mp-	*mp-	to dream
*mpʷ-	*mpw-	to boil
	*mpwj-	to mend
	*mpwts-	name

2.1.2 Nasal + liquid onsets *m.l- and *m.r-

There are two sets of words that are usually put under PMY *mbl- by both Wang & Mao (1995) and Ratliff (2010). (I consider -b- as the emerging stop developing secondarily from PMY *m.l- > mbl-). These are shown in Table 5; Jiwei (Jw), Yanghao (Yh), and Zongdi (Zd) represent the Northern, Eastern, and Western Miao dialects, respectively. For *m.l-, Jiwei and Yanghao have assimilated *m.l- > /n-/, *m.lʷ-, on the other hand, has developed to Jiwei /mj-/.

Table 5: Two series of PMY *m.l- in Miao

		Jw	Yh	Zd	
Rice plant	A	nuu	na	mplæ	*m.l-
Glutinous	D	nu	nə	mplu	
Tongue	D	mja	ɲi	mple	*m.lʷ-
Smooth	A	mje	—	mplein	

The distinction is also made in some Yao dialects, as shown in Table 6. Lanjin (Lj) Mun and Liangzi (Lz) Mien, for instance, show /bl-/ (< mbl-) for *m.l- but bj- (< mblɿ-) for *m.lɿ-. Dongshan (Ds) Biao Min simply reflexes both as *bl-.

Table 6: Two series of PMY *m.l- in Yao

		Lj	Lz	Ds	
Rice plant	A	blau	blau	blau	*m.l-
Glutinous	D	blut	blot	blun	
Tongue	D	bjet	bjet	blin	*m.lɿ-
Smooth	A	bjaŋ	bjaŋ	—	

PMY *m.r- and *m.rɿ- may be similarly distinguished, though here the Miao reflexes have become neutral. Evidence in Yao is found in more limited numbers of dialects than in those of *ml-/*mlɿ-. In Table 7, see the distinction between Luoxiang (Lx) Mien bl- (< *m.r-) and bj- (< *m.rɿ-). The parallel case of *pr-/*prɿ- is also provided in Table 7.

Table 7: PMY *m.r- and *pr-

		Yao			Miao			
		Lx	Lz	Ds	Jw	Yh	Zd	
Spicy	D	bla:t	bja:t	blan	mzɛi	za	mpzɿ	*m.r-
Fish	B	bjau	bjau	bla	mzɯ	zɛ	mpzɛ	*m.rɿ-
Five	A	pla	pja	pla	pzɑ	tsa	pzɿ	*pr-
House	B	pjau	pjau	pla	pzɯ	tse	pzɛ	*prɿ-

From the preceding lists, we may also find some Chinese related forms. There, it is significant to note that the corresponding Chinese onsets are usually *l or *r, never stops (namely, *b).

Table 8: PMY *m.r-/*m.l- and their corresponding Old Chinese (OC) initials

	PMY	OC
Spicy	*m.r-	辣 *rât
Fish	*m.rɿ-	鯉 *rəʔ ‘carp’
Rice plant	*m.l-	稻 *lûʔ
Tongue	*m.lɿ-	舌 *mlat

I have pointed out elsewhere (Ostapirat 2011) that the suggestion of linking the MY word for ‘fish’ to Tai *pla: (see Chen 2001; Ratliff 2010) is not supported by the corresponding sounds between these languages (*m.r- versus *pl-). There has also been a proposal that MY ‘nose’, Dongshan Biao-Min /bli/, Zongdi Miao /mpzɯ/, and Jiwei Miao /mzə/ < *m.r(ɿ)- is related to Chinese *bji(t)s (see Chen 2001). If the MY and Chinese forms really are related, it seems to indicate a borrowing since MY *m.r- would normally correspond to Chinese *r-, as shown above. It needs to be demonstrated why MY *m.r- would correspond to Chinese *b- in this case. Note also that the typical Sino-Tibetan root for ‘nose’ is *sna (Written Tibetan /sna/, Written Burmese /hna/).

2.2 Velars and postvelars

Modern Miao languages are known to have contrastive velar and uvular stop initials /k-/ and /q-/, and these are usually posited directly back to PMY. I have shown elsewhere (Ostapirat 2011) that, in most cases, Miao *k- does not correspond to Yao *k- but rather to *kr-, leaving the possibility of interpreting the correspondence between Miao *q- and Yao *k- simply as PMY *k- (which is typically retracted to q- in Miao dialects).²

Table 9: PMY *k and *kr

		<u>Yao</u>		<u>Miao</u>		
		Ds	Lj	Sm	Yh	
Horn	A	klɔ	kjɔ:ŋ	ku	ki	*kr
To cut	D	klan	kjap	—	ken	*kr
Insect	A	klɛ	kje:ŋ	kau	kaŋ	*kr
Road	B	kla	kjau	ki	ki	*kr
To crow	C	—	ka:i	qa	qa	*k
Sweet	A	kan	ka:m	qau	qaŋ	*k
Borrow	B	kɔ	ka	qe	—	*k
Old	C	ku	ku	—	qo	*k

Ratliff (2010) reconstructs *kl- in those instances where I reconstruct *kr-.³ I reconstruct *kl- for another set of words that show a straightforward *-l- in most dialects.

Table 10: PMY *kl

		<u>Yao</u>			<u>Miao</u>			
		Ds	Lj	Lz	Dn	Yh	Fy	Jw
Dog	B	klu	klu	tlo	tɿe	ɿa	qlɛi	qwu
Waist	B	kla	kla:i	tla:i	tɿua	ɿa	qla	qwa
Hawk	B	klaŋ	kla:ŋ	tlaŋ	tɿaŋ	ɿaŋ	—	qwei
Neck	A	klaŋ	kla:ŋ	tlaŋ	tɿaŋ	—	—	—

² See also Solnit (1996), who has noted this possibility.

³ The *kr- here may belong to two sets: *kr- and *krɿ-, based on the Zao Min distinctive reflexes /ts-/ and /k-/. See Zao Min /kɔu/ ‘horn’, /kɛp/ ‘cut’, but /tsaŋ/ ‘insect’, /tsu/ ‘road’. There is also an example that may point to *qr- (‘egg’) contrasting with *kr- (‘road’), as in the following pairs, where the distinction is attested in Western Miao dialects (represented by Dn and Zd).

		<u>Miao</u>			<u>Yao</u>		
		Dn	Zd	Yh	Sj	Lx	Zm
Road	B	ke	kæ	ki	klu	kjau	tsu
Egg	C	qe	hæ	ki	klu	kjau	tsu

As we see, the cluster *kl- has assimilated into /tʃ-/~/tʃ-/ in some dialects: namely, Liangzi (Lz) Yao and Dananshan (Dn) Miao. This further develops into /d-/ in White Hmong: /de³/ ‘dog’, /dua³/ ‘waist’, /da³/, ‘hawk’, and /da¹/ ‘neck’.

When *kl- is velarized, it typically develops into /kw-/ in Yao dialects. The -l- medial, however, is retained faithfully in Miao dialects such as Dananshan (Dn) and Shimen (Sm) /tʃ-/ in the way we have just noted for PMY *kl-. (See also White Hmong /di¹/ ‘cucumber’ and /da³/ ‘wide’.)

Table 11: PMY *klɣ-

		Yao			Miao			
		Ds	Lj	Lz	Dn	Yh	Fy	Jw
Cucumber	A	kwa	kwa	kwa	tʃi	fa	qwa	kwa
To cross over	C	kwa	kwa:i	kui	tʃua	fa	qwa	kwa
Wide	B	kwaŋ	kwaŋ	kwaŋ	tʃaŋ	faŋ	—	kwei

In several Miao dialects, the development *kl- > /qʃ-/ occurs, contrasting with *klɣ- > /qw-/ (see Fuyuan); in Yanghao (Yh), these further become /ɲ-/ and /f-/. It is worth noting that the Jiwei (Jw) dialect has kept the distinction (before PMY *a) by retaining the velar articulation for the velarized onset: /kw-/ < *klɣ-, but /qw-/ < *kl-. All etyma in Table 11 have the vowel *a.

Some examples of *klɣ- are obscured by the variant development conditioned by the vowels. For instance, the expected -w- is typically lost in Yao dialects when followed by rounded vowels: namely, *klɣu > /ku/ ‘far’. Before the front vowel *e, the palatal -j- instead of -w- has emerged (see ‘bear’).

Table 12: PMY *klɣ- with *u and *e

		Yao			Miao			
		Ds	Lj	Lz	Dn	Yh	Fy	
Far	A	ku	ku	ko	tʃe	—	qwei	
Bear	D	—	kja:p	kja:p	tʃai	ɲi	—	

As usual, some Western Miao dialects such as Dananshan (Dn) come to the rescue, with their reflexes attesting *-l-. For ‘far’, see also Shimen Miao /tʃi/, White Hmong /de/; for ‘bear’, see Sanjiang Biao Min /kljɛ/, Shimen Miao /tʃai/, White Hmong /dai/. Note also Yanghao /ɲi/ ‘bear’; this Eastern Miao dialect shows variant reflexes of the cluster under similar conditions to Yao dialects. Compare the following reflexes in Lanjin (Lj) Yao and Yanghao (Yh) Miao.

	Lj	Yh	Dn
*kl-	kl-	ɲ-	tʃ-
*klɣ-	kw-	f-	tʃ-
*klɣ-/ _e	kj-	ɲ-	tʃ-

Our reconstruction here has helped set up a much simpler system than earlier proposals. Compare, for instance, our established set of *kl- and *klɣ- to those of Ratliff below. This is not to

say that the medial -l-, attested in several modern dialects, cannot be accounted for by reconstructed sounds such as *Kw- or *qw-.

PMY	Ratliff (2010)	Examples
*kl-	*ql-	dog
*klɿ-	*Kw-	cucumber
/_u	*qw-	far
/_e	*qr-	bear

The same rules apply for other velar/postvelar reflex patterns in modern dialects. Table 13 lists the parallel examples of *gl- and *ŋ.l- > *ŋgl-. See also Shimen Miao /dlɰa/ ‘peach’, /dlɰi/ river, and /ndɰlie/ ‘front’.

Table 13: PMY *gl- and *ŋ.l- (> ŋgl-)

		<u>Yao</u>		<u>Miao</u>			
		Ds	Lj	Dn	Fy		
peach	A	kla	klaʊ	tɰua	ɬlei	*gl-	
intestine	A	klaŋ	kla:ŋ	—	—	*gl-	
river	A	—	—	tɰe	ɬlei	*gl-	
shuttle	B	—	gləʊ	—	—	*ŋgl- < *ŋ.l-	
front	B	—	—	nta	nɰlen	*ŋgl- < *ŋ.l-	

Our proposal also helps solve some outstanding problems in the initial reconstruction of certain roots. The word ‘sky, heaven’, for instance, has been listed under three separate initials in previous reconstructions: namely, Ratliff’s *w-, *nd-, and *NG-. In our system, the disparate reflexes are in fact regular and point to PMY *ŋ.lɿ- > ŋglɿ-.

Table 14: PMY *ŋ.lɿ- (> ŋglɿ-) onset for ‘sky, heaven’

		<u>Yao</u>			<u>Miao</u>			
		Lj	Lz	Ds	Dn	Yh	Fy	
Sky, heaven	A	gu:ŋ	guŋ	guŋ (Lx)	nto	vɛ	nɰwaŋ	*ŋ.lɿ-
Front	B	—	—	—	nta	—	nɰlen	*ŋ.l-
Far	A	ku	ko	ku	tɰe	—	qwei	*klɿ-
Dog	B	klu	tlo	klu	tɰi	ɭa	qlɛi	*kl-

We can see a parallel case between *-l- and *-lɿ- in the above comparisons. Remember that Yao dialects typically lose /-w-/ < *-lɿ- before /u/ (see ‘far’) and that Yanghao (Yh) Miao has /f-/ for *klɿ- (e.g. /fa:/ ‘cucumber’); thus Yh /v-/ for *ŋglɿ- < *ŋ.lɿ- is expected.

The etymon ‘yellow’ is posited under Ratliff’s *Gw-. As in case of her *Kw-, this does not explain the -l- reflex in some Miao dialects. Proto-Miao onset for this root is, rather, *glɿ-, a voiced counterpart of *klɿ-, as can be seen in the examples in Table 15.

Table 15: PMY *gl̥- and ‘yellow’

		<u>Yao</u>			<u>Miao</u>				
		Ds	Lj	Lz	Dn	Yh	Fy	Jw	
Yellow	B	waj	vaj	waj	t̪aj	faj	ɣwen	kwei	*gl̥-
Wide	B	kwaŋ	kwaŋ	kwaŋ	t̪aj	faj	—	kwei	*kl̥-

The expected Yao reflexes should be something like /gwaŋ/, however. Taking them at face value, we may need to posit the PMY uvular onset *gl̥, though it seems simpler to consider the Yao forms as separately borrowed from Chinese (黃 OC wâŋ > MC ywaŋ).

2.3 Palatals

There are a number of problems related to the PMY palatal series reconstructed by Ratliff (2010). Most of them are, rather, ‘palatalized’ velar and dental onsets. Instead of reconstructing a second proto feature, I regard them as reflexing the velarized feature that we establish. We have already shown that the velarized feature can be a source of -w- and -j- medials in modern MY dialects.

I reconstruct PMY *g̥- for Ratliff’s *j-. The velar articulation is still attested in some dialects, including the Daping (Dp) and Liangzi (Lz) dialects of Yao and a She (S) dialect in Guangdong. The change *j- > *g̥- would be phonetically somewhat strange.

Table 16: PMY *g̥-

		<u>Yao</u>			<u>Miao</u>		
		Zm	Lz	Jd	S	Yh	Sm
To ride	A	ki	kjei	tcei	khji	tci	dzɦu
Bridge	A	ku	kjau	t̪cou	khji	t̪cu	—
Eggplant	A	kje	—	t̪ce	khju	t̪ca	—
Male (human)	C	kjaŋ	kjaŋ	t̪caŋ	—	t̪caŋ	dzɦau

Also reconstructible with *g̥- onset, the following two etyma suggest some complex pre-initials. The word ‘nine’ may have a complex onset *d.g̥-, with metathesis in some Yao dialects (see Lz and Lx /d-/). The word may be linked to the Tibeto-Burman root for ‘nine’ (see Written Tibetan /dgu/). The etymon ‘root’ may have developed similarly. (See also Pa-hng /ko/ ‘nine’ and /kō/ ‘root’.)

Table 17: PMY *d.g̥-

		<u>Yao</u>			<u>Miao</u>		
		Zm	Lz	Lx	S	Yh	Sm
Nine	A	ku	du	du	khju	t̪cə	dzɦa
Root	A	—	duŋ	duŋ	khjuŋ	t̪co	dzɦau

Examples in Table 18 show PMY velarized (> palatalized) dental onsets. The She/Jiongnai dialects (S and Jn) keep the original dental initials in most cases.

Table 18: PMY velarized (> palatalized) dental onsets

		<u>Miao</u>			<u>Yao</u>			
		S	Jn	Dn	Dp	Lx	Jd	
To thread	A	thjuŋ	tʃui	tʃau	tsui	ɕwən	—	*thɣ-
Steelyard	C	thjaŋ	ntjaŋ	—	dzaŋ	dzaŋ	dzjaŋ	*nthɣ-
Bamboo strip	D	tju	ntjeu	ɲtɕou	dziu	dzu	dzu	*ntɣ-
Pillow	C	njaŋ	ntjoŋ	ɲtɕoŋ	—	dzom	dzəm	*ntɣ-
To peck	D	tju	—	ɲtɕeu	—	—	dzo	*ntɣ-
Mouth	A	tjo	ntjo	ɲtɕou	dzi	—	dzu:i	*ndɣ-

These onsets correspond mainly to Ratliff's palatal initials: *ch- (to thread), *ɲɕ- (bamboo strip, pillow, to peck), *ɲj- (mouth), and one example of *nthj- (steelyard).

Some etyma for which Ratliff has put the Yao forms under her PMY palatal initials (namely, *ɕ- 'girl, daughter', *ɲch- 'ant') have corresponding Miao forms with labial onsets. For these I reconstruct *(m)phɣ- (before *e), from which Yao palatalized reflexes have developed secondarily.

Table 19: PMY *(m)phɣ-

		S	Jn	Dn	Dp	Lx	Jd	
Ant	B	phui	mphai	—	dziu	ɕeu	dzjou	*mphɣ-
Girl, daughter	D	phui	phai	ntshai	sa	ɕa	sje	*(m)phɣ-

For 'girl, daughter', see also Zongdi /mpje/, Fuyuan /mʔphje/.

The preceding discussion concentrates on some outstanding problems of PMY onsets and is not exhaustive. Phonetically speaking, velarization could be considered a feature of the vowels and may influence vowel development. In Table 20, we may note that the velarized feature reconstructed for the word 'hair' is reflexed not only by the contrastive onsets /ɕ-/ versus /l-/ in Yh, but also by the different vowels /i/ versus /ei~əi/ in Jw and Ds dialects. In such a case, the velarization explains both onset and rime development in modern dialects, which in turn further substantiate the proposed reconstruction. Issues in PMY rime reconstruction will be elaborated in future studies.

Table 20: PMY *pl- and *plɣ-

		<u>Miao</u>			<u>Yao</u>		
		Yh	Jw	Zd	Ds	Lj	
four	A	ɭu	pzei	plou	pləi	pjei	*pl-
hair	A	ɭu	pi	plou	pli	pjei	*plɣ-

3. Miao-Yao and Chinese

The issue of affiliation between MY and Chinese has been debated for over a century. A typical view is to consider them as genetically related and part of the great Sino-Tibetan family, though a recent review of the issue (Gong 2006) seems to be skeptical of this scheme. Gong points out that a number of putative related forms fail to show regular correspondences, that the Miao or Yao forms often reflect Middle Chinese or later stages instead of Old Chinese (thus are likely to be loans), and that many etyma are represented by only Miao or Yao forms (indicating that the words may not go back to PMY). These points imply that some of the proposed related etyma have to be rejected (due to lack of regular correspondences), while others are better treated as borrowings from Chinese into MY.

Even so, there is much we can learn from lexical comparisons between Chinese and MY, especially from vocabulary items that belong to the older stages. For instance, the selected words in Table 20 show the correspondences between MY prenasalized stops and what Norman (1974) calls Proto-Min (the ancestral language of the Chinese Min dialects) softened stops. The list appears to support Norman's contentions that these distinct initial series have to be reconstructed for Proto-Min (and thus also for Old Chinese), and that one of their major sources could be prenasalized stops (Norman 1986).

Note that Proto-Min *-d may correspond to MY *d- or *r- when preceded by nasal onsets. See 'ramie, hemp' (PMY *nd-), 'fish, carp' (PMY *m.r-), and 'lazy' (PMY *ŋ.r-). Also, Proto-Min *-dʒ is found to correspond to PMY *m.lʃ- (see 'tongue'). (The representative dialects are Fuyuan for Miao and Luoxiang for Yao. Forms from a Chiengrai dialect of Yao (Cr), from my field notes, and Dongshan Biao Min (Ds) may be cited when the Luoxiang Yao forms are missing.)

Table 21: MY prenasalized onsets and Proto-Min softened stop initials⁴

	Miao	Yao	PMY	Proto-Min	
Collapse	—	ba:ŋ (Cr)	*mp-	-p	崩
Mend	mʔpa	bwa	*mp-	-p	補
To boil	mʔpu	bwei	*mp-	-p	沸
Daughter-in-law	—	bwəŋ	*mb-	-b	婦
Float	—	bjeu	*mb-	-b	浮
Step	—	bwa	*mb-	-b	步
Challenge	—	dou (Cr)	*nt-	-t	賭
Carry on shoulder	—	da:m	*nt-	-t	擔
Ramie	nta	do	*nd-	-d	紵
Fish, carp	mpji	bjau	*m.r-	-d	鯉
Lazy	ŋkaŋ	—	*ŋ.r-	-d	懶
Early	nʔtsu	djeu	*nts-	-ts	早

⁴ Norman represents Proto-Min softened stop initials with a preceding hyphen. For 'ramie, hemp', see also Pa-hng /mjo/, which suggests *m.d-. For 'mushroom', see also Zao Min /gu/. The word 'hold in mouth' is an exception where the Yao *ŋk- does not agree in voicing with Min *-g. Note also that a number of etyma lack corresponding forms in Miao, perhaps suggesting a more intimate contact link between the ancestors of Min and Yao.

	Miao	Yao	PMY	Proto-Min	
Name, character	—	dzaŋ (Ds)	*ndz-	-dz	字
Tongue	mple	bjet	*m.l-	-dʒ	舌
Mushroom	ŋʔka	ju	*ŋk-	-k	姑
Hold in mouth	—	gɔm	*ŋk-	-g	含

The direction of borrowings is also a tantalizing issue. Words reconstructed with PMY *klɿ- can be taken as an illustrative case. No trace of -l- is found for these words in Chinese, which are usually reconstructed with Old Chinese initial *kʷ-. If they are loans, the borrowing must have gone from MY into Chinese rather than the other way around. The same is true for an etymon such as ‘dog’ (PMY *kl-); for this word, Chinese simply shows *k-.⁵

Table 22: PMY *kl-/ *klɿ- and OC *k-/ *kʷ-

		PMY	OC	
Cucumber	A	*klɿa	*kwra	瓜
To cross over	C	*klɿai	*kwaih	過
Wide	B	*klɿaŋ	*kwaŋ?	廣
Dog	B	*klu	*ko?	狗

Note also that Chinese has another native root for ‘dog’ (犬 Old Chinese *khwin?) that can be traced back to Sino-Tibetan (see Written Tibetan /khji/, Written Burmese /khwe/). In such a case, the possibility that Chinese has borrowed 狗 *ko? from MY is further substantiated by its lack of a Sino-Tibetan origin. The search along these lines that puts MY and Chinese lexical comparisons into a Sino-Tibetan perspective may thus help to clarify the affiliation and borrowing issues between MY and Chinese in the near future.

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⁵ See also Schuessler (2003) for some suggested MY loans in Old Chinese.

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原始苗瑤語音韻構擬與譜系關係的幾個議題

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本文呈現原始苗瑤語音韻構擬上的新觀點，重點處理古單、複聲母重建上一些棘手的問題，提議為原始苗瑤語構擬軟顎化特徵，作為闡釋現代方言複雜音韻發展的鑰匙。本文依據新構擬的音系審視若干詞例，判斷其為漢語、苗瑤語共有詞彙的可行性，期望藉由可確信的語音對應關係，將苗瑤語遠程比較建立在堅實的材料基礎之上。

關鍵詞：苗瑤語，音韻構擬，軟顎化，譜系分類，東亞地區語言