

TWO-PART NEGATION IN YANG ZHUANG¹

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Abstract

The negation system of Yang Zhuang includes two standard negators and an aspectual negator, all of which occur before the verb; the negator *meiz* nearly always co-occurs with a clause-final particle *nauq*, which can also stand as a single-word negative response to a question. Although it is tempting to analyze *nauq* with a meaning beyond simply negation, this is difficult to do synchronically. Comparison with neighboring Tai languages suggests that this construction represents one stage in Jespersen's Cycle, whereby a negator is augmented with a second element, after which the second element becomes associated with negation; this element subsequently replaces the historical negator. A Jespersen's Cycle analysis also explains the occurrence of *nauq* as a preverbal negator in some neighboring Zhuang languages.

Keywords: Tai languages, Zhuang, negation, Jespersen Cycle
ISO 639-3 codes: zyg, zyj, zhn, nut, yrn, yln, yha, yzg

1 Introduction

Otto Jespersen is traditionally given credit as the first to observe that the forms which languages use to express negation frequently change over time in a common pattern: some additional element often becomes used with a standard marker of negation, usually to intensify it. The association with negation becomes so frequent that this second element then becomes re-analyzed as somehow associated with the semantics of negation rather than intensifying the negation, and it eventually replaces the original standard negator of the language. Dahl (1979) refers to this as “Jespersen's Cycle”,² and there are no small number of languages in the world which appear to have undergone this change or appear to be undergoing it now, including English, French, Greek, dialects of Italian, Welsh, Arabic, and Berber, among many others (Miestamo 2007, Willis 2011, Lucas 2007; a broad discussion of Jespersen's Cycle in languages around the world is given in Willis, Lucas, & Breitbarth 2013).³

Although many of the examples of Jespersen's Cycle in the literature involve languages that are found outside of Asia, this may reflect the fact that the historical development of languages outside of Asia is typically better documented than languages found within Asia, rather than indicating that examples of Jespersen's Cycle

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- 1 This paper was prepared for presentation at the 25th Annual Meeting of the Southeast Asian Linguistics Society. I would like to thank the audience for their helpful feedback, as well as Andrew Hsiu, Alexis Michaud, and Guillaume Jacques for detailed and very constructive comments on the written version of this paper. I would also like to thank the two anonymous reviewers for their helpful comments. Special thanks are due to Shawn McKinnies, Eric Johnson, and Lau Shuh Huey for help in obtaining Zhuang language data, to Lon Diehl for help with the Thai, Khmer, and Burmese data, and to three anonymous language consultants from the county seat of Jingxi County, Guangxi, China. All errors remain my own.
 - 2 Dahl cites Jespersen (1917) for this observation, but Dahl himself was the first to use the term “Jespersen's Cycle.” Interestingly, van der Auwera (2009) points out that other authors (Gardiner and Meillet) proposed similar cyclical analyses of negation in French before this publication of Jespersen's; nonetheless, it is Jespersen's name which is most often associated with modern work on this kind of cyclical analysis.
 - 3 A number of languages with a significantly long historical record can be shown to have undergone this kind of change. A separate research question is why such change may happen and what the steps of the process are. This is discussed at length in van der Auwera (2009).

cannot be found within the languages of Asia. It is easiest to support a Jespersen's Cycle analysis by pointing to specific stages in the historical development of a single language—thus favoring languages with a long recorded history—but alternative support for a Jespersen's Cycle analysis can be provided by multiple related languages that instantiate the different stages in the cycle. A recent paper by van der Auwera & Vossen (2017) proposes just this for the group of Tibeto-Burman languages known as Kiranti, which are spoken in eastern Nepal; these languages vary in their use of a verb prefix and verb suffix for negation, and these authors suggest that they represent multiple stages of a cycle shifting from a single negative prefix to a single negative suffix, with various configurations of double negation marking, or sometimes even three or more negative markers, as intermediate stages. Earlier work by these authors (van der Auwera & Vossen 2015) also finds evidence of a Jespersen Cycle in the Chamic languages (Austronesian, Malayo-Chamic) of southern Vietnam.

The data presented in this paper suggest that Yang Zhuang [zyg], a Central Tai language spoken in the border area of southern China and northern Vietnam that is referred to by speakers as simply Yang, is another example of a language displaying historical changes that follow the pattern of Jespersen's Cycle. In fact, Yang and a number of related Tai languages around it suggest different stages in a shift of negators, some of them employing a basic negator descended from Proto-Tai, while Yang employs a two-part negation construction, while in still other varieties the secondary negator seen in Yang appears to have replaced the Proto-Tai negator as one of the basic negators in the language.

2 Yang Zhuang in detail

The term Zhuang is used by the Chinese government to refer to communities speaking Tai languages which are found in Yunnan Province and the Guangxi Zhuang Autonomous Region. These languages can be from the Central and Northern Tai branches described by Li (1977), constituting a paraphyletic grouping.⁴ For most Chinese linguists, Tai speech varieties in this area are considered dialects of a single Zhuang language, even though their degree of mutual unintelligibility has led Western linguists to classify the different Tai varieties as distinct but closely related languages. In this paper I will follow the Western usage of the terms “language” and “dialect,” which are based on mutual intelligibility; I do so not to make a political statement but simply because neutral terms like “speech variety” are less commonly used and could be unclear.

One of the first and most comprehensive modern sources to document variation within Zhuang languages was Zhang et al. (1999), which included wordlist data collected in 1954 and 1955 for 36 representative Tai-speaking communities in Guangxi and Yunnan. These authors analyzed this data into two major categories, North and South, corresponding to the division of Central Tai and Northern Tai, and thirteen vernaculars (the Chinese terminology used was two 方言 *fāngyán* “dialects,” comprising thirteen 土语 *tǔyǔ* “vernaculars” or “local speech varieties”). The scope of this data is impressive, covering an ethnic population which at the time was probably around 7 million, spread over a geographic area of nearly 270,000 km² that was still quite difficult to travel through in many parts. However, within each vernacular—or, more properly, within the a geographical area assigned to each vernacular—there was still significant linguistic variation which was not well captured at the level of granularity of this data.

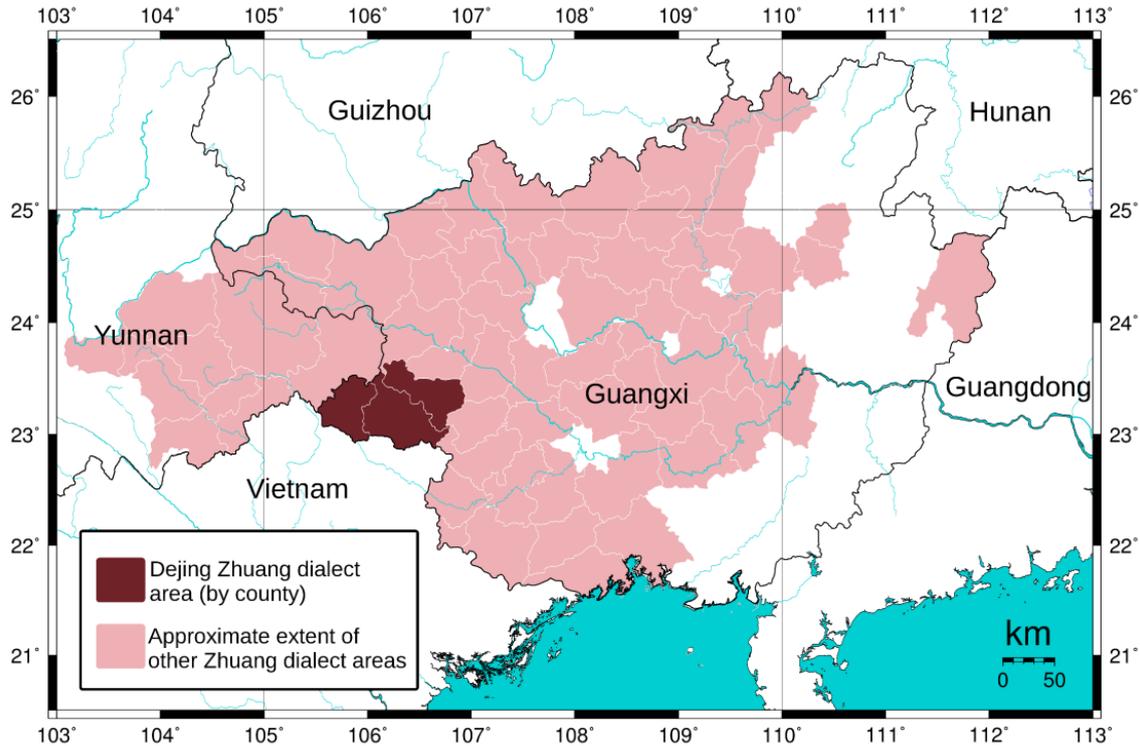
One of the southern vernaculars was labeled the Dejing vernacular, spoken in three counties of southwestern Guangxi: 靖西 *Jìngxī*, 德保 *Déběo*, and 那坡 *Nàpō*.⁵ Within this geographic area, the most populous variety named in Chinese sources is Yang, referred to in the Jingxi Xianzhi (2000) as 仰话 *yǎnghuà* “Yang speech.” This first syllable [jaŋ²¹³] is taken from an autonym used by some speakers of this variety in this area. Many speakers, however, simply refer to the language they traditionally speak as 本地话 *běndìhuà* “local speech” or 土话 *tǔhuà* “earth speech,” both of which are more generic terms of reference for any local speech variety. Other sources use the term 靖西话 *jìngxīhuà* “Jingxi speech,” using the name of the county where this is the most prominent speech variety. However, since there are a range of different Zhuang speech varieties spoken in Jingxi County, the more concise and more specific term Yang will be used in this paper.

4 The Bouyei people, for instance, are another officially recognized ethnic group of China, who speak Northern Tai languages and were originally found in Guizhou Province. It is possible to find varieties of Bouyei and Zhuang which are very similar to each other, more similar even than the internal differences between different varieties of Zhuang, and yet for official purposes Bouyei and Zhuang are considered distinct ethnicities within China. And, although the internal relationships among Tai languages have now been shown by Pittayaporn (2009) to be more complicated than Li's (1977) divisions into North, Central, and Southwest branches, my point here is merely that even when a phrase like “the Zhuang language” is used by Chinese linguists, it does not refer to a proper clade.

5 Zhang's wordlist data included only a single datapoint from each of the two larger counties.

Although there is not a great deal of documentation of Yang compared to many major languages, it is not completely undocumented. Zheng (1996) is a general description of the lexicon, phonology, and basic syntax of Yang as spoken in the county seat of Jingxi County; Zheng herself is a native speaker of Yang from Jingxi, who was trained in linguistics at the Central Institute for Nationalities in Beijing. Other published descriptions of this language include Huang (2010), an MA thesis which gives a more comprehensive grammar of the language, and Qin, Huang, & Chen (2010), which focuses in particular on the expression of negation in Yang and in other geographically nearby Zhuang languages.

Figure 1: Location of the Dejing dialect area where Yang is spoken⁶



Nevertheless, the high degree of linguistic variation in this area makes the published descriptions of negation in Yang difficult to interpret. Jackson, Jackson, & Lau (2012) present the results of an intelligibility study of this dialect area, including nineteen locations within Jingxi, Napo, and Debao Counties. Jackson et al. find that Tai varieties spoken in this area comprise two main clusters which are not inherently fully intelligible with each other—which they label Yang-Nong and Minz-Zong, using several autonyms from these groups for convenience—and each cluster itself shows significant internal variation, with a number of sub-varieties that can be identified.⁷ Yang is the largest of these varieties by population, and includes the variety spoken in the county seat of Jingxi County; this county seat variety constitutes a prestige variety for Jingxi County, and Jackson et al. find that the high social standing of Yang extends somewhat into Napo and Debao counties, as well. Yang and the other Zhuang varieties spoken in and around Jingxi County are collectively referred to informally as “Jingxi Zhuang” or “Dejing Zhuang,” and yet may differ from the Yang spoken in the county seat in terms of lexicon, segmental and tonal phonology, and syntax.

This high degree of variation among similar speech varieties is one factor that contributes to difficulties for interpretation of research claims. Specifically, a number of the example sentences which Huang (2010) and Qin et al. (2010) offer as grammatical for what they call “Jingxi Zhuang” are considered to be ungrammatical by at least some Yang speakers from the Jingxi county seat (see the following sections). It is possible that the

⁶ Maps were generated from publicly-available GIS data sources (Dernberger et al. 1997) using Generic Mapping Tools (<http://gmt.soest.hawaii.edu/>), an open-source suite for displaying geospatial data (Wessel & Smith 1991).

⁷ Jackson et al. do not claim that the variation in this dialect area is unusually large compared to other surrounding areas; this situation may be typical for all Tai varieties in the surrounding areas, which tend to be mountainous and were difficult to travel through prior to the 20th century. With notable exceptions like Johnson (2010) and Castro & Hansen (2010), dialect surveys at this level of detail are simply still rare for Zhuang areas.

data used by Huang, Qin, and Chen, including the rather wide range of possible expressions of negation that they describe, reflects grammaticality judgments from several distinct Zhuang varieties (idiolects of a small community or social network, or sociolects of a particular age group) within the Jingxi area; however, this level of granularity in tracking the sources of information is not given in these works.

Full documentation of the expressions of sentential negation in each of the Jingxi Zhuang varieties is an ideal goal for the linguistics community and for the Yang language community, as well, but it would require a significant investment of research resources in the short term. On the other hand, lumping together the expressions of negation in multiple distinct speech varieties, without tracking which expressions are licit or illicit for each variety and what their interpretation is, can lead to misanalysis. This is especially true if a shift in the expression of negation is in progress. Because of this difficulty, this paper will first examine in detail just those expressions of negation that are licit for native speakers of a narrowly-defined speech community: native speakers of Yang between the ages of 25 and 45, who were born in, grew up in, and currently live in the Jingxi County seat. Some of the following Yang examples were originally found in Zheng (1996), some were taken from a personal narrative of a county seat resident that was recorded and transcribed by Castro, Lau, & Jackson (2012),⁸ and some are the result of independent fieldwork by the author, but all examples were subsequently checked for grammaticality, precise meaning, and pragmatic flavor with three (two male and one female) unrelated native speaker consultants who met these criteria.

2.1 Basic sentential negation

Yang⁹ has three basic preverbal forms for sentential negation: *boj* and *meiz*, both standard negators like Mandarin 不 *bù*, and an aspectual negator *zaengz* with a meaning like “not yet” or “have not,” similar to the meaning of Mandarin 没 *méi*. Examples illustrating the use of these negators before verbs in simple indicative sentences are shown below.¹⁰

8 This narrative was used as the basis of a Recorded Text Test for intelligibility by Jackson et al. (2012).

9 Examples from Yang in this paper will be presented in a phonemic spelling system as well as in IPA. Forms written in the practical writing system will be italicized or enclosed in <angle brackets>; forms in IPA will be enclosed either in [square brackets] (for phonetic form) or in /slashes/ (for phonemic form). The phonemic writing system used here for Yang is nearly identical to that of Standard Zhuang, which is described in Luo, Qin, Lu, & Chen (2005). The Yang phonemic system uses the same phonemic values for consonants and vowels, and includes the use of <z q h j x> syllable-finally to represent tone, but differs from the standard in three ways: (1) the graphemes <p>, <t>, and <k> are used for voiceless aspirated syllable-initial stops in Yang, though these phonemes are absent in syllable-initial position in the standard system; (2) <l> and <r> are used here for sounds in some local varieties that contrast [l] with an [ɺ]-like phoneme, instead of using only <r> to represent /ɺ/ as in the standard; and (3) vowels here are written according to the vowel inventory and pronunciation of Yang Zhuang rather than the standard. Other points to note in this writing system are that the grapheme <s> corresponds in this variety to a phoneme that varies from an apical fricative [θ] to a lateral fricative [ɬ], and that the third tone (historically C1), written with a <-j> final tone letter, includes significant glottal tension through the syllable; this is transcribed phonetically as [-³³?], but the glottal tension often introduces jitter into the voicing of the vowel which some other authors transcribe as a wavering pitch (such as Zheng 1996, who writes this tone with a [²³²³] contour).

10 Although there may be semantic or pragmatic differences between *boj* and *meiz*, these will not be discussed in the current paper. Interestingly, Pittayaporn, Iamdanush, & Jampathip (2014) reconstruct three negators for Proto-Tai, /*ɓaw^B/, /*mi/, and /*paj^B/, with uses similar to the three negators presented for Yang – /*ɓaw^B/ and /*mi/ as general negators, and /*paj^B/ as an aspectual negator. While the phonological shape of Yang *boj* and *zaengz* do not appear to be cognate with /*ɓaw^B/ and /*paj^B/, it is interesting to note that the semantics of the reconstructed three-negator system of Proto-Tai is very similar to the semantics of the modern Yang three-negator system. Just as I am not able to say much substantively regarding the semantic or pragmatic differences between *boj* and *meiz* in Yang, however, Pittayaporn et al. are unfortunately not able to comment on what semantic or pragmatic differences may have distinguished /*ɓaw^B/ and /*mi/ in Proto-Tai.

- (1) *Ngoq boj laeuz niq*
 [ŋo⁴⁵ po³³? lau³¹ ni⁴⁵]
 1 NEG know 2¹¹
 “I don't know you.” (Castro et al. 2012.08)
- (2) *Ngoq meiz baei nauq*
 [ŋo⁴⁵ mei³¹ pai⁵³ nɛ:u⁴⁵]
 1 NEG go NEG
 “I'm not going.” (Castro et al. 2012.16)
- (3) *Ngoq zaengz gin*
 [ŋo⁴⁵ tsɑŋ³¹ kin⁵³]
 1 not.yet eat
 “I haven't eaten.” (personal fieldnotes)

Note that in sentence (2), with the negator *meiz*, there is a clause-final word *nauq* which is also glossed as a negator. This word will be the focus of this paper: What is its possible historical source, and what is its role in the synchronic grammar of Yang? Is it semantically simply another expression of negation, or is its meaning more specific? Although other published descriptions of Yang negation, such as Huang (2010) and Qin et al. (2010), treat it as a negator on par with the preverbal negators, the data here shows that its interpretation is not that straightforward.

In Zheng's (1996:243) grammar of Yang, she describes this word as a negative auxiliary verb (否定助词 *fǒuding zhùcí* “negative auxiliary” or “negative particle”) which is required when the negator *meiz* is used. Although she describes two main categories of auxiliary verbs in Yang, she places *nauq* in a third category by itself, so its status as an auxiliary or particle is not very helpful or explanatory, and may instead reflect the difficulty in analyzing this two-part negation construction *meiz ... nauq*, even though Zheng is a linguistically-trained native speaker of Yang. Although the possibility of two distinct elements expressing negation within the same clause may at first seem unusual, languages that have been analyzed with two-part negation constructions are not vanishingly rare, nor are they limited to this geographical area; a well-known example would be the *ne ... pas* construction in French. The World Atlas of Language Structures or “WALS” (Dryer 2013) lists 200 out of 1324 languages that express negation with more than one morpheme: 114 languages that employ obligatory bipartite negation, 80 languages that show optional bipartite negation (some with multiple possible expressions of negation), and even six that allow optional tripartite negation. These 200 languages are not isolated to any specific region around the world. Because the range of expressions of negation cross-linguistically as seen in WALS is so complex, however, it becomes even more important to clearly understand the details of the different expressions of negation in the particular language under study. Without this deep understanding for each single language, an accurate cross-linguistic comparison is difficult to make.

Where the negator *meiz* is used, Zheng claims that *nauq* must always occur at the end of the sentence; the only exceptions she notes are in folksongs for reasons of rhyme, or to reduce the number of syllables in a line (1996:238). The novel data in this paper show that there are other contexts with *meiz* in which *nauq* may be optional, but in the most frequently occurring contexts of negation, the Yang speakers that I consulted agree that Zheng's description is accurate: *nauq* is obligatory when the preverbal negator *meiz* is used. Zheng's *nauq*-less contexts suggest, however, that *meiz* by itself is sufficient to express negation.

With the aspectual negator *zaengz*, Zheng claims that *nauq* is optional, and with the negator *boj*, Zheng claims that *nauq* is “not necessary.” In fact, the Yang speakers in this age range from the county seat that I consulted varied in their opinion of such sentences, rating sentences with both *zaengz* and *nauq* anywhere from “marginally acceptable” to “completely ungrammatical.”

11 Glosses and abbreviations follow the Leipzig Glossing Rules (Comrie, Haspelmath, & Bickel 2008). Abbreviations: 1,2,3 = first, second, third person; CLF = classifier; CONT = mood particle marking information that is contrary to expectations; COP = copula; CPL = completive; NEG = negative; ONO = onomatopoeia; PFV = perfective; PL = plural; SFT = mood particle which softens the force of a statement; TAG = question tag.

- (4) a. ?**Ngog* *zaengz* *dwnq* *nauq*
 [ŋo⁴⁵ tsaj³¹ tən⁴⁵ nɛ:u⁴⁵]
 I not.yet stand NEG
 “I haven't stood up.” (personal fieldwork, based on Zheng 1996:239)
- b. ?**Guij* *zaengz* *soek* *nauq*
 [ku:i³³? tsaj³¹ θok⁴⁴ nɛ:u⁴⁵]
 banana not.yet ripe NEG
 “The banana hasn't ripened.” (personal fieldwork, based on Zheng 1996:239)

While this is not a clear judgment of ungrammaticality, there are a variety of factors which could be implicated in this result. Alexis Michaud (p.c.) has suggested that the presence or absence of *nauq* could be linked not just to strict interpretive differences but also to differences in speech register, as is the case for the two-part *ne ... pas* construction in French, which to modern French speakers is associated with a more formal or archaic speech style. This would be consistent with the observation that *nauq* can be omitted in poetry and song for reasons of rhyme or meter, since these speech styles can sometimes preserve archaic forms. Further supporting data would be required to evaluate this, however, since a sample size of only three speakers is admittedly small, and no such *zaeng ... nauq* examples occur in the small sample of natural texts that have been collected for Yang.

These speakers offered a different judgment regarding sentences with *boj* and *nauq*.

- (5) a. *De boj laeux*
 [te⁵³ po³³? lau¹³]
 3 NEG understand
 “He doesn't understand.” (personal fieldwork)
- b. *De boj laeux nauq*
 [te⁵³ po³³? lau¹³ nɛ:u⁴⁵]
 3 NEG understand NEG
 “He doesn't understand.” (personal fieldwork)

The form in (5)a illustrates the most common occurrence of *boj*—as a preverbal negator with no clause-final marking. In the admittedly rather small corpus of personal narratives from the county seat, there are no occurrences of *boj* with *nauq*. When presented with the possibility of sentence (5)b, the three speakers consulted for this paper felt it would be acceptable, but might have a different interpretation than (5)a. One speaker described the difference this way: In the form without *nauq*, the emphasis is on the subject's lack of knowledge; in the form with *nauq*, it sounds like the speaker is more sympathetic to the subject or is trying to be more polite to the subject, as if it softens the assertion. This may be a result of pragmatic considerations rather than a strictly semantic difference between (5)a and b; that is, when a language offers a choice of two ways to express the same or similar propositional content, one or both of the means of expression sometimes become associated with additional pragmatic meaning (Levinsohn 2012:2). Alternatively, when questioned in an elicitation session with a linguist, speakers may simply be looking for some element of meaning to differentiate them, even if that difference is pragmatic or connotative. An association between *nauq* and the illocutionary force of a sentence will be seen in additional data below; however, the possibility that (5)b is grammatical, and what its proper interpretation is, should be balanced against the fact that this *boj ... nauq* construction has also not yet been found outside of elicited contexts.¹²

When negation occurs in a sentence built from multiple clauses, *nauq* always occurs in the same linear position: following the embedded clause but before any mood particles associated with the higher clause. An occurrence of *nauq* following an embedded clause is shown in (6)a, where it is the verb in the matrix clause, and not the verb in the embedded clause, that is negated. In this example, if *nauq* were to come between the

12 Additionally, although the use of *boj* as a negator seems less frequent than *meiz*, the relative text frequencies of the two standard negators have not yet been established with confidence in Yang.

verb and the second clause, an embedded interpretation would not be possible; instead, the utterance would be interpreted as two sequential clauses. In (6)b, *nauq* occurs where the verb in the embedded clause is negated.¹³

- (6) a. *Ngoq meiz rouxnaj* [*gwnz geiq myenh bah niq*] *nauq*.
 [ŋo⁴⁵ mei³¹ ɿou¹³nɛ³³? kɔn³¹ kei⁴⁵ mjɛn²⁴ pɛ²⁴ ni⁴⁵ nɛ:u⁴⁵]
 1 NEG know person this COP father 2 NEG
 “I didn't know this man was your father.” (personal fieldwork)
- b. *Ngoq roux'naj* [*niq meiz roux'naj nauq*]
 [ŋo⁴⁵ ɿou¹³nɛ³³? ni⁴⁵ mei³¹ ɿou¹³nɛ³³? nɛ:u⁴⁵]
 1 know 2 NEG know NEG
 “I know you didn't know.” (personal fieldwork)

Based on the limited corpus available to date, the linear position in (6)b is actually ambiguous between a clause-final position in the embedded clause and a clause-final position in the matrix clause. The kind of example which would disambiguate this hierarchical location would be one in which both the embedded clause and the matrix clause contained clause-final aspect or mood particles. Unfortunately, such an example was not found in the available natural data, but the null hypothesis would be that *nauq* occurs at the end of the clause in which the negator *meiz* occurs, but before any aspect or mood particles.¹⁴

In most simple negated sentences, it would seem like most of the semantic weight of negation was carried by the preverbal negator *meiz*, since even Zheng admits that *nauq* can be omitted in poetry or songs; that is, *meiz* alone is sufficient to express the semantic content of negation. It is therefore surprising that, in conversational contexts, *nauq*, but not *meiz*, can serve as a single-word negative response, similar to the way *no* may be used in English. Yang employs a number of other clause-final tense, aspect, and mood particles, but no others have so far been found as a single-word utterance in natural data.

- (7) *Wanz.geiq ndut gvaq wanz.waz miq?*
 [vɛ:n³¹kei⁴⁵ ʔdu:t³⁵ kvɛ⁴⁵ vɛ:n³¹vɛ³¹ mi⁴⁵]
 today hot beyond yesterday Q
 “Is today hotter than yesterday?” (personal fieldwork)

- (8) a. *Meiz ndut gvaq wanz.waz nauq*
 [mei³¹ ʔdu:t³⁵ kvɛ⁴⁵ vɛ:n³¹vɛ³¹ nɛ:u⁴⁵]
 NEG hot beyond yesterday NEG
 “It's not hotter than yesterday.” (personal fieldwork)
- b. *Meiz ndut gvaq nauq*
 [mei³¹ ʔdu:t³⁵ kvɛ⁴⁵ nɛ:u⁴⁵]
 NEG hot beyond NEG
 “It's not hotter.”
- c. *Nauq*
 NEG
 “No.”
- d. * *Meiz*
- e. * *Ndut gvaq nauq*

13 The two utterances in (6) form an adjacency pair in a natural dialog—(6)b is a response to (6)a, and these two examples were elicited in this context.

14 That is: A possible analysis could be that when negation occurs in an embedded clause, the sentence-final *nauq* is actually located at the end of the matrix clause; the existing data cannot rule out this analysis. However, I take the null hypothesis to be that the *nauq* occurs at the end of the clause (matrix or embedded) in which the negator *meiz* also occurs. See (10)b for an example showing that *nauq* occurs before other clause-final mood particles in single-clause sentences.

When a Yang speaker is asked the question in (7), all three answers in (8)a-c are grammatical negative responses, differing only in how much previously understood content a speaker wishes to repeat. In neutral contexts, the speakers I consulted felt that the most colloquial and natural response would be (8)c, with just *nauq*; note that (8)d shows that a parallel one-word response with only the preverbal negator *meiz* is not acceptable.¹⁵ In spite of its ability to serve as a single-word negative response, though, *nauq* itself is not acceptable as a preverbal negator for Yang speakers of this age in the Jingxi County county seat, nor can it form a longer grammatical utterance if the preverbal negator *meiz* is not also present (as in (8)e).¹⁶

The class of words which can constitute a complete utterance by themselves is sometimes referred to as sentence-words or pro-sentences (though the meaning of the latter term is slightly broader), and word pairs like *yes* and *no* in English, and their equivalents in European languages, often display this behavior. This at least serves as a precedent for sentence-words that are associated with negation. If this is truly a negative sentence-word, it raises the interesting question of whether there might be any corresponding positive form in Yang, along the lines of *yes* (though even if *nauq* in Yang is properly analyzed in at least some uses as a sentence-word like the English word *no*, it is not necessary that there is a corresponding word in Yang which would function like the English word *yes*).¹⁷ The closest candidate may be one of the copulas, *zeih*, which is one of several possible copulas in Yang (and is seen in the examples in (15)); although the typical positive answer to a question involves simply repeating the verb, some speakers accept this copula as a single-word positive utterance to a question even when a different (typically active) verb is questioned. Claiming that this is truly a *yes/no* pair would require further data on the use of the positive member, however, and this is moving beyond the scope of the current paper.

Interestingly, while many languages in this region of Asia do not have a pair of generic words for *yes* and *no*, the use of clause-final negative particles here as single-word negative responses is not without precedent. Ehrman (1972) describes a similar situation, though interacting with encoding of social status and politeness, for Khmer, and Lee (1996) describes similar behavior in Roglai, a Chamic language of Vietnam. Lee in fact describes several Chamic languages of Vietnam which have a two-part negator, one part occurring preverbally or sentence-initially and the other occurring sentence-finally; in Roglai, the sentence-final element may also be used as a complete negative utterance. If Ehrman's and Lee's descriptions are accurate, it shows that Yang, while rare, is not unique in this regard, and not unique in this region of Asia.

The use of *nauq* as a single-word utterance may also explain several of the observations in Qin et al. (2010) that seem to be at odds with the judgments of the Yang speakers I consulted for this research, namely, that *nauq* can occur as a marker of negation sentence-initially, before the subject. These speakers felt that, as a response to the question in (7), the following response was also acceptable—a combination of (8)b and c.

- (9) *Nauq, meiz ndut gvaq nauq*
 [nɛːu⁴⁵ | mei³¹ ʔduːt³⁵ kvɛ⁴⁵ nɛːu⁴⁵]
 NEG NEG hot beyond NEG
 “No, it's not hotter.” (personal fieldwork)

Note that in this example, there is a pause or intonational break (indicated orthographically by the comma) following the initial *nauq*, indicating that it is not a constituent of the following clause. This pause may be very brief, or even in some cases nonexistent, as in some utterances of parallel examples in other languages, such as the English “No it wasn't!” Brief though this pause may be (or even absent), the Yang speakers I consulted

15 Note that another conceivable response is not listed here: *meiz nauq*. This is in fact an acceptable response for some speakers, but has a different interpretation and will be introduced in §2.4.

16 This is contrary to claims made in Qin et al. (2010), who present examples in which the only negative morpheme in the sentence is a final *nauq*. Examples in that work are shown for several locations, tagged as being representative of Bama County, Tianlin County, Baise City, Nandan County, and Jingxi. This construction may be acceptable in some areas, as Qin et al. claim, but the Yang speakers from the Jingxi County county seat who I consulted for this research did not feel that these examples were acceptable in their variety of Yang.

17 There are languages that are completely without *yes-no* words, as well as *yes-no* systems with three and even four elements, and though I am not aware of other documented cases of other languages with only one polarity of *yes-no* word, I do not rule out their existence. By raising this question, I am not suggesting that the existence of a sentence word with one polarity requires the existence of a sentence word with the opposite polarity, but merely that if a sentence word with one polarity exists, it is worthwhile to look for a sentence word with the opposite polarity.

felt that for them, the initial *nauq* constituted a separate phrasal unit from the remainder of such an utterance. For county seat speakers of Yang who have this kind of intonational break, such utterances therefore do not constitute tripartite negation any more than the English “No it wasn’t” constitutes bipartite negation. From a structure with this linear order, however, further historical change may have led to reanalysis in other varieties and possibly true tripartite negation in some of the Zhuang varieties that Qin et al. list with this construction; for the county seat variety of Yang that is the focus here, however, the apparent tripartite negation reduces simply to bipartite negation with a preceding negative sentence-word.

2.2 More complex negative constructions

A number of more complex negative expressions in Yang can be built from the standard negator *meiz*, and to a limited extent from the negator *boj*, as well. Although at least one of these complex negative expressions may represent a lexicalized form and may not be phonologically or semantically transparent, those that are clearly built from *meiz* show the same co-occurrence with the sentence-final particle *nauq*, while those built from *boj* do not.

- (10) a. *Meizcaej* *gangjgoj* *nauq*
 [mei³¹sai³³? kəŋ³³?ko³³? nɛ:u⁴⁵]
 NEG.use chat NEG
 “Don’t chat.” (Zheng 1996:239)
- b. *Meizcaej* *gin* *dongsaei* *doix-de* *nauq* *bwq*
 [mei³¹sai³³? kin⁵³ toŋ⁵⁵θai⁵³ to:i¹³te⁵³ nɛ:u⁴⁵ pə⁴⁵]¹⁸
 NEG.use eat thing PL-3 NEG SFT¹⁹
 “Don’t eat other people’s things.” (Zheng 1996:244)

The examples in (10) are sentences with the negative imperative *meiz caej*, and are considered ungrammatical by Yang speakers from the Jingxi county seat if *nauq* is not present clause-finally. Note that in (10)b, *nauq* occurs before the sentence-final mood particle *bwq* (that is, although *nauq* occurs at the end of the clause, it is still within the sentential scope of *bwq*). The presence of a mood particle like *bwq* in statements or commands does not eliminate the need for *nauq*, nor does it prevent the occurrence of *nauq* clause-finally.²⁰

Other phrasal constructions with *meiz* also require the presence of *nauq* clause-finally, such as *meiz yiz dwngj* “不一定 *bùyíding* ; not certain.”

- (11) *Meiz* *yiz.dwngj* *haet* *ndaeij* *nauq*
 [mei³¹ ji³¹təŋ³³? hat⁴⁴ ?dai³³? nɛ:u⁴⁵]
 NEG certain do be.able NEG
 “It’s not certain to work.” (Zheng 1996:239)

Zheng (1996) gives similar examples with the parallel phrase *boj yiz dwngj*, with the borrowed negator *boj* (which she spells *buj* in her example), but none of those occur with clause-final *nauq*.

Negators are also used in one method of forming polar questions in Yang, just as in Chinese, in what is sometimes called an “A-not-A” construction. As expected, when the preverbal negator *meiz* is used, *nauq* must be present clause-finally. When the negator *boj* is used to form polar questions, Zheng (1996) states that *nauq*

18 The tonal contour of the first syllable of *dongsaei* [toŋ⁵⁵θai⁵³] is realized as high level even though in isolation this syllable would be pronounced as high falling, just as the second syllable is; high falling tones surface as high level before another high tone as part of Yang tone sandhi.

19 The clause-final particle *bwq* [pə⁴⁵], glossed SFT, softens the force of or adds politeness to an imperative. Zheng (1996) compares this to the Mandarin command-softening mood particle 啊 *a*.

20 Although I have not found examples of *nauq* co-occurring with all sentence-final mood particles, I have no evidence to suggest that it is unacceptable with any of them. I have examples of *nauq* before sentence-final *bwq* “啊 *a* ; expressing excitement, surprise, or agreement, or softening a command”, *a* “吗 *ma* ; neutral question-forming particle”, *neh* “呢 *ne* ; indicating continuation of an action or state”, *bwj* “呃 *e* ; expressing wonder or admiration”, *lejyaq* “算了 *suànle* ; expressing impatience, frustration, giving up”, *laj* “了 *le* ; expressing a currently-relevant state”, and *lok* “了 *le* ; expressing a completed action.”

does not occur (the Yang speakers I consulted, however, dispreferred *boj* in general for polar question formation).

- (12) a. *Gunq bit geiq zeih meiz zeih gunq niq nauq?*
 [kun⁴⁵ pit⁵³ kei⁴⁵ tsei²⁴ mei³¹ tsei²⁴ kun⁴⁵ ni⁴⁵ nɛ:u⁴⁵]
 CLF pen this COP NEG COP CLF 2 NEG
 “Is this pen yours?” (Zheng 1996:227)
- b. *Niq seix meiz seix nauq?*
 [ni⁴⁵ θei¹³ mei³¹ θei¹³ nɛ:u⁴⁵]
 2 buy NEG buy NEG
 “Will you buy (it)?” (personal fieldwork, based on Zheng 1996:226)

Polar questions can also be formed from an indicative sentence with the addition of a sentence-final particle *miq* (a neutral question-forming particle) or *a* (which can be used to form polar questions that express an element of surprise, and otherwise marks statements that are surprising or contrary to expectations). When *meiz* is not present preverbally, the clause-final *nauq* is not acceptable. However, negative polar questions—questions which are formed by adding a sentence-final question particle to a negated sentence, often used with rhetorical force—are an example where *nauq* does not normally occur when the negator *meiz* is used, as in (13). Zheng (1996) does not mention any such sentences, and gives no examples of negative polar questions in her text.

- (13) a. *Bet maen meiz ndaeij a?*
 [pet⁴⁴ man⁵³ mei³¹ ʔdai³³? ɤ⁵⁵]²¹
 8 yuan NEG be.able CONT
 “Isn't ¥8 enough?” (eg, suggesting to a cab driver that it is) (personal fieldwork)
- b. *Ngoq meiz zeih gwnz Meiqgoz a?*
 [ŋo⁴⁵ mei³¹ tsei²⁴ kən³¹ mei⁴⁵ko³¹ ɤ⁵⁵]
 1 NEG COP person America CONT
 “Aren't I an American?” (eg, suggesting or reminding the listener that I am)

Note that in such examples, *nauq* is no longer required, even though *meiz* is present preverbally. This is not simply a restriction that is based on the choice of final question particle, since it is in fact possible to add *nauq* to negative polar questions, resulting in a slight difference in interpretation, as in the following two examples.²²

- (13) c. *Bet maen meiz ndaeij nauq a?*
 [pet⁴⁴ man⁵³ mei³¹ ʔdai³³? nɛ:u⁴⁵ ɤ⁵⁵]
 8 yuan NEG be.able NEG CONT
 “Isn't ¥8 enough?” (suggesting to a cab driver that it is) (personal fieldwork)
- d. *Doih-niq meiz roux'naj ngoq ho youq tingyag nauq a?*
 [toi²⁴ni⁴⁵ mei³¹ ɿou¹³nɛ³³? ŋo⁴⁵ ho⁵³ you⁴⁵ tʰiŋ⁵³jɛ:k²⁴ nɛ:u⁴⁵ ɤ⁵⁵]
 PL-2 NEG know 1 appropriate at school NEG CONT
 “Didn't you know that I would be at school?”

One speaker commented that the sentence in (13)c sounded more indirect than the parallel (13)a, perhaps as if the speaker was trying to be more polite or subtle in his or her point. This may reflect an absence of rhetorical force when *nauq* is present, or as with (5)b, it may simply reflect pragmatic inference rather than

21 The tone realized on the sentence final particle here is high or high rising, although normally this particle occurs with low-falling tone (tone 2, with contour ³¹ and written with <-z>). This example appears to be a case where the lexical tone of this particle is over-ridden by a rising intonation contour in questions.

22 Note that (13)c differs from (13)a only by the addition of *nauq*. Although (13)c was elicited, not produced in natural speech, it was accepted by speakers as grammatical. The example in (13)d, however, was produced in natural speech.

strict semantic meaning. Another speaker commented that the examples without *nauq* ((13)a and b) could be used rhetorically, but felt that those with *nauq* a ((13)c and d) carried the force of a non-rhetorical question.

There is also a question tag which Zheng (1996) gives as *mizzeq*, which appears to be derived as a reduction from a negative polar question with the negator *meiz* and the copula *zeih*,²³ parallel to the tag question “不是吗? *búshìma*; isn't it?” in Chinese, and when it occurs, as with *meiz* in negative polar questions, *nauq* is absent.

- (14) *Niq* *singj* *baei* *ganqhangq* *mizzeq?*
 [ni⁴⁵ θŋ^{33?} pai⁵³ kan⁴⁵haŋ⁴⁵ mi³¹tse⁴⁵]
 2 want go market Q
 “You want to go to the street market, right?” (Zheng 1996:245)

The status of this phrase as a negative question tag may not necessarily be the only explanation for the lack of *nauq* in such examples. As suggested by the phonological reduction of this tag from *meiz zeih* (a) to *mizzeq*, it is possible that this form has a degree of semantic opacity as well as phonological opacity, and perhaps for this reason no *nauq* is required. Alternatively, this form could have originated historically from a point in the history of the language before *nauq* was associated with negation, and has become frozen. Whether one of these ideas is the correct explanation or not, the current lack of *nauq* with the tag *mizzeq* is important to note for the accurate description of the language, but does not pose a major obstacle for analysis of the unreduced examples.

2.3 Analysis of sentence-final *nauq*

A description of the occurrence of *nauq* in natural Yang speech, like that just given, is relatively straightforward, but a formal synchronic analysis of it is not. Speakers can easily discuss the differences in shades of meaning or context when comparing two sentences with and without *nauq*. However, when speakers are asked about the meaning associated specifically with this clause-final particle, they often find it difficult to come up with any meaning other than its association with negation. The inability of native speakers to articulate a precise meaning for an abstract or functional element may be a common situation—or for an element whose interpretation is better associated with clausal or pragmatic differences. However, in most cases an analysis of the particle in question is possible after an examination of the contexts of occurrence. For *nauq* in particular, however, other than its use as a negative sentence-word, it is easier to rule out possible analyses than it is to find a general semantic analysis that actually seems viable for all contexts.

Given that a clause-final particle shows some kind of association with negation, there are several hypothetical semantic analyses that one might make. One possibility which will not be considered here, however, is that it functions simply as one phonological element of a bipartite-yet-semantically-unitary negator; or put another way, that there is a single negation morpheme in Yang Zhuang, which is realized by phonological material that occurs in two different linear positions in an utterance. This might be analogous to situations of negative concord, where several negative morphemes occur in a clause which semantically only involves one instance of sentential negation. However, since there are contexts in which one of the two elements occurs without the other (single-word negative sentence responses and negative polar rhetorical questions), this suggests that there is some difference in semantic content between the two elements that is worth exploring. Even if this morpheme historically held a particular meaning which has now been bleached away, the fact that sentences with and without this clause-final morpheme have different interpretations suggest that children who are learning the language in this state might try to assign some difference in meaning to the clause-final element. For these reasons, I think it is worthwhile to first explore what other shades of meaning the clause-final element may have before falling back to an analysis which assigns it a meaning no different from the negation expressed by the pre-verbal negative element.

There are several semantic categories which are often associated with negation which may be likely candidates to assign as the meaning of the clause-final element, distinct from the meaning of the preverbal negator, such as being a negative intensifier or a mood particle expressing irrealis. Neither of these analyses

23 This tag question does not appear to show a trace of the question particle *miq*, but could perhaps have originated from a use of the question particle *a* that has simply elided beyond all segmental trace.

appears to be consistent with the modern data for this variety, and the only positive clue in the data seems to lie in the negative association with *nauq* and rhetorical questions.

Evidence that *nauq* is not synchronically a negative intensifier is simply that it is not typically optional in negated expressions. In order for a negative assertion to be intensified (as with something like English at all), both the intensified assertion and the more neutral, non-intensified assertion should be grammatical. As shown above, negated assertions with *meiz* are acceptable without *nauq* only in a narrow range of circumstances—poetry and rhyme, and rhetorical questions—which do not seem to reflect merely neutral or non-intensified assertions. I will suggest in the next section that this clause-final particle originated as a negative intensifier, though the synchronic data for Yang show that it is not analyzable with this meaning now.²⁴

It can also be shown that *nauq* does not express irrealis mood. There does not appear to be any other clause-final marker of irrealis in the Zhuang speech variety under investigation here, so we cannot point to any morpheme which would more clearly be associated with irrealis. However, as mentioned above, although *nauq* does seem to have a linear position at the end of the sentence that is reminiscent of aspect and mood particles, it does not seem to interact with other sentence-final markers of mood, as irrealis might. Furthermore, it does not become acceptable in the kinds of circumstances which would normally be associated with irrealis marking, such as counterfactuals, negated assertions in general (that is, with other sentential negators), or assertions about the future. The examples in (15) illustrate this fact for counterfactual clauses.

- (15) a. *Vangh.yax ngoq gin makmoiz yaq, ngoq senq lej tai yaq lok.*
 [vɛ:ŋ²⁴ja¹³ ŋo⁴⁵ km⁵³ mak³⁵moi³¹ ja⁴⁵ || ŋo⁴⁵ θen⁴⁵ le³³? t^hɛi⁵³ ja⁴⁵ lok³⁵]
 if I eat berry PFV I already then die PFV CPL
 “If I had eaten the berries, I would have died.” (personal fieldwork)
- b. *Vangh.yax meiz zeih de hingbang ngoq nauq,*
 [vɛ:ŋ²⁴ja¹³ mei³¹ tsei²⁴ te⁵³ hiŋ⁵⁵paŋ⁵³ ŋo⁴⁵ nɛ:u⁴⁵ |]
 if NEG COP 3 help I NEG
ngoq senq lej tai yaq lok.
 [ŋo⁴⁵ θen⁴⁵ le³³? t^hɛi⁵³ ja⁴⁵ lok³⁵]
 I already then die PFV CPL
 “If it hadn't been for his help, I would have died.” (personal fieldwork)

In both of these examples, the first clause is a counterfactual context: it describes a situation which did not actually happen (eating the berries, or not receiving help from someone), and the second clause asserts what would have happened in this hypothetical context. In (15)a, a positive counterfactual context, no *nauq* is allowed, but in (15)b, a negative counterfactual context, it occurs solely because of the preverbal negator. For the idiolect of the county seat that is the focus of this analysis, simply being a counterfactual clause is not sufficient for the clause-final *nauq* to occur; clause-final *nauq* is only observed when the preverbal negator *meiz* is also present, even in counterfactual contexts.

The main evidence for a meaning of *nauq* beyond simply negation is its optionality in negative polar questions, which are frequently used with rhetorical force in Zhuang. When a negative polar question is used rhetorically, its illocutionary force is not to ask for information or to negate an assertion, but to assert to the listener that the positive form of the question is actually true. (Sadock 1974) Negative tag questions are similar in this regard to negative polar questions in that they are often used rhetorically. This would accord nicely with the fact that Zheng's reduced negative tag *mizzeq* patterns in the same way as negative polarity questions with respect to *nauq*, namely, that if *mizzeq* is normally used with rhetorical force, it is to be expected that *nauq* does not normally occur with *mizzeq*.

It would be an odd kind of analysis, however, to suggest that the presence or absence of *nauq* is directly determined by the illocutionary force of the sentence, since in most derivational theories of syntax, illocutionary force is a pragmatic property of an utterance and is not normally accessible to the grammatical

24 In fact, negative intensifiers are typical sources for the second negative element in Jespersen's Cycle. The historical second element in the French negative construction, *pas* “(one) step,” which is now the primary expression of negation, originated as a negative polarity item which intensified the negation expressed by the historical preverbal negator *ne*. Modern French speakers may be aware of this historical and now archaic meaning even though this secondary element *pas* is no longer optional (and in fact is often the only overt marker of negation in a sentence).

operations that determine licit syntactic structure. Instead, illocutionary force is normally taken to be determined through interpretation of syntactic structure and semantic content in a particular context of utterance. Indeed, Alcazár (2017) notes that most analyses of rhetorical questions are pragmatic, though the point of his paper is to present similarly problematic data from Basque and a dialect of Italian showing that rhetorical questions in those languages can also have correlations with syntactic structure.

Although they are not the only ones to observe this, Caponigro and Sprouse (2007) present a pragmatically-based analysis of rhetorical questions in which they note that rhetorical questions have the same kind of “semantic feeling” as statements of the opposite polarity. In these authors' analysis, rhetorical questions have the syntactic structure of standard questions, and like any question, they are associated with an answer set in the minds of the conversational participants. In the case of rhetorical questions, though, the shared knowledge of both the speaker and the addressee is already sufficient to make only one of those answers clearly correct; specifically in the case of polar questions, the clear answer would have the polarity which is opposite that of the question. This indirectly makes negative polar questions, used rhetorically, have the assertive force of a positive statement—not negative at all. However, since this is a pragmatic effect and not a syntactic or narrow semantic property, it is still not at all clear what kind of analysis would be required to make syntactic well-formedness of *nauq* sensitive to this fact of pragmatic interpretation.

As a reminder, whatever formal analysis is adopted must accord with the aforementioned empirical data, namely that *nauq* seems simply to mark an assertion that has negative polarity, or to mark a question whose illocutionary force is not that of a positive statement, and moreover that it only occurs when one of the three preverbal negators of Yang is used. The most straightforward example of this is that *nauq* can serve as a single-word response to a polar question when the polarity of the response is negative: the semantic content of the preceding question includes all the necessary specification of a particular eventuality, and what the questioner asks the speaker to supply is simply the proper polarity for the eventuality, which the clause-final negative element is able to communicate by itself. As mentioned with the data above, the occurrence of *nauq* as a complete one-word utterance in this way makes it look very much like a negative sentence-word comparable to the English *no* (though with the relatively minor contact of speakers of Yang with English, I take the phonetic similarity of *no* and *nauq* to be entirely coincidental).

Analyzing *nauq* as associated with the negative polarity of an utterance may explain the responses of native speakers when asked about the acceptability of *nauq* in negative polar questions, as in (13), or in statements negated with *boj*, as in (5)b: if the pragmatic effect of *nauq* is to emphasize negation or the negative polarity of the sentence, the sentence as a whole cannot be rhetorical. This would make the sentences in (13) real questions, thus sounding more subtle or indirect than standard rhetorical questions; by ruling out a rhetorical interpretation for the negator *boj* in (5)b, the resulting question may be interpreted as less direct than the parallel statement without *nauq* which would allow a rhetorical interpretation.

This discussion has not resulted in a clear, formal analysis of *nauq*, but should instead be considered simply trying to sketch a plausible hypothesis, since the qualitative descriptions of the meaning of this word as given by linguistically-untrained native speakers during elicitation are difficult to interpret in technical semantic terms. Moreover, making generalizations based on only a small number of examples or leaning too heavily on qualitative descriptions from native speakers may lead to incorrect conclusions. One type of evidence that would produce a more strongly-supported analysis would be to examine statistical tendencies in a large corpus of natural texts. Unfortunately, example sentences of this type in natural speech are exceedingly rare, and the available corpus from Yang is comparatively small. Alternatively, the intuitions of several linguistically-trained native speakers, if they were in agreement regarding the semantic analysis of this word, would also be compelling. Notably, however, even the linguistically-trained native speaker who has written most extensively on Yang—namely, Zheng Yiqing herself—either was not able to give a clear and well-defined analysis of *nauq*, or did not feel that it warranted an extensive analysis in her brief grammar.

The suggestion that clause-final *nauq* marks negation or negative polarity as somehow emphasized or in focus does make a testable prediction, though, since if this is the case, it should disallow some other part of the sentence from taking focus. When an utterance involves constituent negation—that is, when a different constituent of a negated sentence is given contrastive focus, as in “John didn't open the door, Mary did.”, or “I didn't buy pears, I bought tangerines.”—the scope of focus for the sentence is limited to just that particular constituent; if *nauq* is signaling emphasis or focus on negation or on properties that have scope over the entire sentence, then it should no longer be acceptable or should sound infelicitous if contrastive focus is limited to just one element besides clausal negation. No current natural examples of constituent focus or constituent

negation have been found—none of the currently available natural texts in Yang contain clear instances of contrastive focus—but this is a target for future work.

One thing that none of these suggested analyses explains, however, is why clause-final *nauq* occurs with only one of the negators, rather than with all three. It is admittedly very hard to explain this fact on only synchronic grounds without some way of distinguishing the syntactic properties or semantic content of *meiz* from the negator *boj*, which has not yet been possible. Apart from purely synchronic factors, however, the co-occurrence of *nauq* with only *meiz* is conceivably due to a historical accident, possibly due to the semantics or usage of *nauq* before its reanalysis as expressing focus on negation, or due to the status of *boj* as a borrowing from Chinese.²⁵

It is worth noting, however, that other cases of Jespersen's Cycle also involve what appears to be ad hoc or irregular behavior. For example, in French, a certain set of verbs does not take *pas* (the historically-secondary negative element) when negated; this is referred to as *ne litteraire*. Likewise, the French preverbal negator *ne* occurs without *pas* when embedded under certain classes of predicates; this is referred to as *ne expletif*. The existence of apparent irregularities in historical change is valuable, though, in that it is often taken to indicate a complex historical path that has not yet been fully understood—which in turn motivates many linguists to find explanations for these apparent irregularities. The fact that the irregularities of *nauq* cannot yet be formally analyzed may serve to draw more attention to the problem and hopefully result in our eventual understanding.

2.4 Negative existential expressions

The examples thus far have dealt with a range of negated verbs and adjectives, and there does not seem to be any difference in the behavior of *meiz* ... *nauq* that is dependent on the type of predicate that is negated (even locative verbs), except for one: the possessive verb in Yang, which is also used to express existence. By the vagaries of historical development, the possessive/existential verb in Yang Zhuang has become homophonous with the preverbal negator *meiz*. Homophones in Yang, while not as frequent as in Chinese, are also not rare, and yet the speakers of the language seem able to communicate without problems. With this in mind, an outsider might expect that Yang would express the idea “there is no X” with a construction like NEG BE X, realized phonemically as *meiz meiz* X, in spite of the homophony; this is not what is observed. In fact, when the existential verb is negated, it is not preceded by the typical preverbal negator *meiz*, but is instead immediately followed by *nauq*, and if an object or any other word follows the verb, there is an obligatory clause-final *nauq*, as well.

- (16) a. *Ngoq meiznauq ceq nauq.*
 [ŋo⁴⁵ mej³¹nɛːu⁴⁵ ɛɛ⁴⁵ nɛːu⁴⁵]
 I have.NEG car NEG
 “I don't have a car.” (personal fieldwork)
- b. **Ngoq meiznauq ceq.*
- c. **Ngoq meiz meiz ceq (nauq).*
 I NEG have car NEG
- d. **Ngoq meiz ceq nauq.*

The absence of a clause-final *nauq* makes such sentences ungrammatical (16)b, or at least infelicitous. It is also not possible to express negated existence or possession with a sequence of the preverbal negator *meiz* and the verb “to have” *meiz* as in (16)c, regardless of the presence or absence of a clause-final *nauq*. Negation by only the presence of the clause-final marker is also not acceptable.

Rather than suggest that *nauq* here serves as an exceptional negative verbal suffix on the existential verb *meiz*, an alternative hypothesis is that *meiznauq* as a whole has become lexicalized as the negative existential verb, along the lines of what is suggested for negative existential verbs by Croft (1991). Zheng's presentation

25 Regarding this last point, Pittayaporn et al. (2014) conclude that the *buj* or *boj* of Jingxi Yang represents a more recent borrowing from Chinese rather than being cognate with the Proto-Tai /*baw^B/ that they reconstruct. However, this different phonological source in this particular language doesn't change the fact that the Proto-Tai system that Pittayaporn et al. reconstruct still had two plain preverbal negators whose semantic difference, if any, is unclear even for that historical stage.

of the data may in fact support this: in the few examples of this type that Zheng lists (1996:257-8),²⁶ she glosses *meiznauq* as a single unit meaning “没有 *méiyǒu* ; to not have, to not exist”. This also appears to be the conclusion of Qin et al. (2010:20, fn1), and agrees with the intuitions of two out of three of the county seat speakers that I consulted. I will therefore adopt this analysis and gloss instances of this verb without morpheme breaks, as seen in (16).

In contrast with other verb types (as exemplified in (8)), and possibly supporting the suggestion that *meiznauq* is not synchronically segmentable, *nauq* alone is not natural as a single-word negative answer to questions involving possession.

- (17) *Niq meiz ceq miq?*
 [ni⁴⁵ mei³¹ ce⁴⁵ mi⁴⁵]
 2 have car Q
 “Do you have a car?” (personal fieldwork)

- (18) a. *Meiznauq.*
 NEG.have
 “No.”
 b. * *Nauq.*

It is possible to topicalize an object, however, leaving the existential verb complex in phrase-final position. Where this occurs, the additional clause-final *nauq* is not added; the clause-final *nauq* is not acceptable following the fronted object gap, as in (19)b.

- (19) a. *Cek sei geiq ngoq meiznauq.*
 [ɛɛk⁴⁴ θei⁵³ kei⁴⁵ | ŋo⁴⁵ mei³¹nɛ:u⁴⁵]
 CLF book this 1 NEG.have
 “That book, I don't have.” (personal fieldwork)
 b. * *Cek sei geiq ngoq meiznauq nauq.*

As with other embedded clauses and negation (seen in the examples in (6)), the clause-final *nauq* that is associated with a negated existential verb in a matrix clause follows the embedded clause, and it is the matrix verb, and not the verb of the embedded clause, which is interpreted as negated.

- (20) *Naz goj meiznauq [saek gwnz tei naz] nauq.*
 [na³¹ ko^{33?} mei³¹nɛ:u⁴⁵ θak⁴⁴kən³¹ tʰei⁵³ na³¹ nɛ:u⁴⁵]
 field also NEG.have any person cultivate field NEG
 “The fields had no one cultivating them; there was no one cultivating the fields.”²⁷

There are unfortunately no examples in the data to date of negative polar questions with this verb used rhetorically, in order to say whether the clause-final *nauq* would behave differently in such sentences than with other verbs.

The association of clause-final *nauq* with “true” negatives, rather than negative questions used rhetorically, by itself does not immediately explain the development of *meiznauq* as a negative existential verb in Yang. An additional historical path or mechanism for that development is required. Croft's (1991) proposal suggests a general historical mechanism to allow negative existential verbs to be extended as general negators,

26 To be clear: on pages 257-8 of Zheng (1996), she lists four sentences with negated existential verbs, and in all but one, she glosses *meiznauq* as a unit meaning “没有 *méiyǒu* ; to not have”. In the one example which she does not gloss as a unit, she glosses *meiz* as “没 *méi* ; not” and *nauq* as “有 *yǒu* ; have”, which is inconsistent with her glossing elsewhere in the book and thus appears to be an error, not an analysis that she is actually asserting for that particular example.

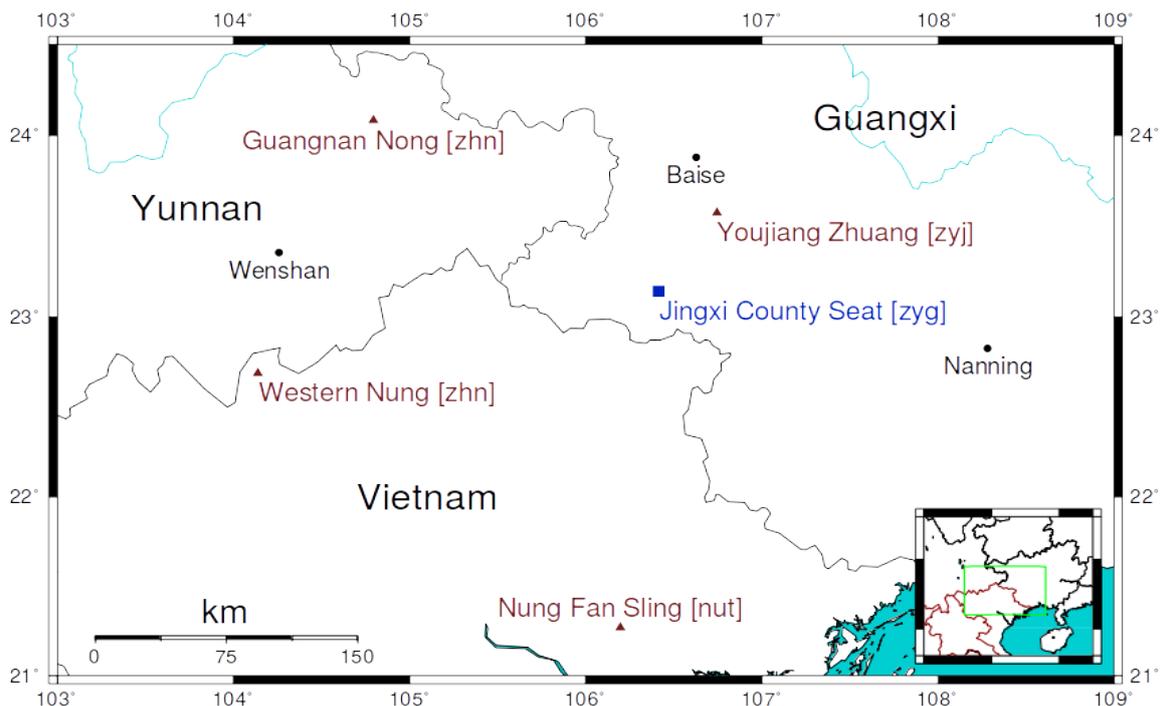
27 Since in this example the noun *naz* “field” is topicalized, there appears to be a resumptive copy of the same noun occurring within the embedded clause, and so this sentence may be odd for reasons unrelated to negation. This was nevertheless the only instance of a negative existential verb with a clausal complement in the data to date.

but this case is different: here, a negative existential verb appears to have developed from merging an existential verb with a clause-final negative element, which is only one of two elements associated with negation. This is complicated by the fact that in Yang, both the existential verb and the preverbal negator have become homophonous, though it is conceivable that it is because of this homophony that this merger has taken place.

This is an unusual form for the negative existential verb compared to neighboring Tai languages. Proposed reconstructions of both existential verbs and negators in Tai suggest that this two-syllable negative existential developed independently in Yang and was not itself a source for the general negator *meiz*; similarly, it seems unlikely that this negative existential verb was a source for the more general clause-final *nauq*, since there is no reason for the negative existential verb to be added to otherwise negated sentences. Hypothetically, if *meiznauq* as a negative existential developed in Yang after the association between clause-final *nauq* and negation was established, it could have been motivated by a reanalysis of utterances involving only a negated verb and the clause-final *nauq* (that is, without overt intervening objects), as are common in Zhuang when answering questions negatively or when the object has been fronted for the purpose of topicalization (as in (19)a). This development path would require that the string *meiz meiz nauq* “NEG have NEG” was reduced by haplology to simply *meiznauq*. Although this may be plausible, it can remain only a suggestion in the absence of actual historical data.

If the development of the negative existential verb is dependent on the development of *nauq* as associated with negation, then it is doubly important to understand the historical development of this construction. In order to do this, the following section will look at synchronic negation systems in some of the Tai languages most closely related to Yang.

Figure 2: Locations of related Central Tai languages discussed here



3 Yang Zhuang in the context of its neighbors

Yang and most other varieties of Zhuang spoken in and around Jingxi County fall within Li's (1977) Central Tai group of languages, and the synchronic grammar of Yang by assumption represents development from a historical source that it shares with the Tai languages around it, including rural varieties of Zhuang outside the county seat which are still mutually intelligible with Yang (that is, that would together constitute different dialects of Yang) but which may nonetheless show significant grammatical differences. The current expressions of negation and the current meaning and use of words which may be cognate with Yang *nauq* [nəu³⁵] /na:u^{B1}/ in neighboring areas indicate that the language as described in §2 may represent one stage in a

relatively typical example of Jespersen's Cycle—a chain of development from a single preverbal negator *meiz*, through the current two-part negative construction *meiz ... nauq*, to a later stage where the clause-final negative element *nauq* has become the only negator, either clause-finally or eventually preverbally. The development of Yang through these stages is suggested by a number of the languages that geographically surround the area where Yang is spoken.

3.1 Youjiang Zhuang [zyj]: the end state

For the purposes of comparison with Yang, two personal narratives (2-3 minutes each) were obtained from the Youjiang Zhuang dialect area (Shawn McKinnies, p.c.); the speakers for these narratives were from Baigu Village, Pohong Township, Tianyang County, Guangxi, approximately 60km to the northeast of the Jingxi county seat.²⁸ Although the Zhuang spoken in the Youjiang area is reported to have several preverbal negators—for example, the Tiandong datapoint of Zhang et al. (1999) lists both /m̩⁴/ and /na:u⁵/ as negators, and Shawn McKinnies notes that there are at least some varieties in this area that use a preverbal negator of the shape /mi/—the only preverbal negator in the two narratives was *nauq*, and no other particles related to negation were seen clause-finally.

- (21) a. *Boh gu nauq haej.*
 [po⁵³ ku⁴⁵ nɛ:u²⁴ hai³⁴]²⁹
 father 1 NEG give
 “My father didn't give (it to me).” (McKinnies, pc)
- b. *Gwq dex lix ij caeuz.yah*
 [kə²⁴ te³¹ li³¹ ʔi³⁴ sau¹³ja⁵³]
 time that still small woman
ix bux.sai nauq ndaex doengh daemj.
 [ʔi³¹ pu³³tɛ.i³¹ nɛ:u²⁴ ʔdai³¹ toŋ⁵³ tam³⁴]
 with man NEG be.able one.another³⁰ touch
 “When I was small like that, girls and boys didn't touch one another.”

Qin et al. (2010) show similar data with *nauq* as a preverbal negator for locations they indicate as being in Baise City, as well as Bama, Tiandeng, and Jingxi Counties in Guangxi.

This same preverbal negator is also used in the Youjiang narratives to negate a verb of possession, with no additional or special marking:

- (22) *Gax.du nauq miz biu.*
 [ka³¹tu²² nɛu²⁴ mi¹³ pi:ou⁵³]
 3.PL NEG have ticket
 “We didn't have tickets.” (McKinnies, pc)

Although this location is relatively close to Jingxi, the negation system used in these texts is much simpler: the word *nauq* appears to play the role that *meiz* and *boj* do in Jingxi, and there is no hint of any unusual clause-final negative element, nor of any special negative existential verb.

28 In characters, this location is 广西区百色市田阳县坡洪镇百谷村, and is located near 23.572°N, 106.749°E.

29 Note that the phonetic realization of the tones in Youjiang Zhuang is not identical to that of Yang Zhuang, even though the same set of tone categories and orthographic tone letters is used.

30 An anonymous reviewer notes that this may be mis-glossed, since this word resembles a word in several other Tai languages that means “touch” and not “one another.” I cannot speak to this point specifically, since Youjiang Zhuang is not a language that I am familiar with; these glosses were provided by Shawn McKinnies, who provided the transcribed stories, as well. While I am not familiar with a word with this pronunciation in Yang, I can say that the Yang word which means “touch” is pronounced *daemz* [tam³¹], very similar to the word glossed as “touch” in this sentence.

3.2 *Nùng Fan Slihng of Vietnam [nut]: the precursor*

By way of comparison in the other direction—both geographically, to the south, and metaphorically, to a linguistic stage with no evidence of a word *nauq* related to negation—there is Nùng, a Central Tai language of northern Vietnam. Data from Nùng is found in a dictionary (Bè, Saul, & Wilson 1982) and a grammar (Saul & Wilson 1980). The speakers who provided the data used in these resources called their language Nùng Fan Slihng, and at the time of publication of those resources lived in Bắc Giang Province, Vietnam; this is roughly 200 km south of Jingxi, and 100 km southwest of the Vietnamese-Chinese border at Pingxiang, Guangxi. Although this group is located relatively far from Jingxi, they may have moved out of the current Zhuang-speaking area (possibly near Longzhou, Guangxi) relatively recently—within the past several hundred years. (Wang 1992)

Bè et al. (1982) is certainly not an exhaustive dictionary, but although it contains several entries with a phonological shape close to *nauq*, none of them are indicated to have a meaning related to negation, or even related to quantification or intensification. Saul & Wilson (1980) also do not discuss any phrase-final elements with a shape like *nauq*, though they do discuss several negators in use in the language: *bô* and *mi*, standard negators, and *sahng*, a negator which they gloss as “not yet.” In terms of phonological shape and meaning, these negators are very similar to *boj*, *meiz*, and *zaengj* of Yang. The two standard preverbal negators (whose meaning and use is not differentiated by the authors) pattern very much as we would expect based on Zhuang. Their use, however, shows no indication of any association with any particular clause-final particle.

- (23) a. *cáu* *bô* *mơ* *đày*.
 [ka:u³⁵ ʔbo³³ mə³³ ʔda:i²¹]³¹
 1 NEG return be.able
 “I can't return.” (Saul & Wilson 1980:46)
- b. *sláo* | *mi* *ại* *tô.say* *páy*.
 [la:o³⁵ | mi³³ a:i²²ʔ to³³sa:i³³ pa:i³⁵]
 sister NEG want together go
 “I don't want to go with (you).” (to a peer female?)³² (Saul & Wilson 1980:44)

Interestingly, when a speaker wants to intensify the sense of negation, Saul and Wilson note that both negators can be used together preverbally.

- (24) *muhn* *bô-mi* *khài* *hừ*.
 [mun³³ ʔbo³³mi³³ k^ha:i²⁴ hu²¹]
 3 NEG-NEG sell give
 “He won't sell it.” (Saul & Wilson 1980:46)

And according to those authors, for even greater emphasis it is possible to use all three negators together, in the following order:

- (25) *cáu* *bô-mi* *sahng* *đày* *hêht*.
 [ka:u³⁵ ʔbo³³mi³³ saŋ³³ ʔda:i²¹ het²⁴]
 1 NEG-NEG not.yet be.able do
 “I can't do it yet!” (Saul & Wilson 1980:46)

31 The IPA transcription given here, including tone numbers, is the author's best attempt to apply the (non-IPA) description of Saul & Wilson (1980:5-12) to the examples which are written in their orthography. Vowel length of single vowels in open syllables is assumed to be non-contrastive.

32 The semantic contribution of the first word of this sentence is not clear from the free translation that Saul & Wilson give. Since it occurs before a pause signified by the vertical bar, it is possible it is being used as a vocative to introduce the following phrase. I have noted this possible meaning with the parenthetical phrase “to a peer female?”, but for our purposes, the interpretation of this word appears to be unrelated to negation.

Rather than simply intensity, this last example appears to have the “not yet” meaning that is shared by the Yang aspectual negator. Importantly, though, no evidence is seen of a particle in clause-final position which is associated with negation or intensification.

3.3 Western Nung & Nong Zhuang [zɰn]: suggesting an early stage

Neither Nùng Fan Slihg to the south of Jingxi, nor the Youjiang Zhuang variety immediately north of Jingxi, showed a pattern of negation that resembled that of Yang Zhuang in the Jingxi county seat. Both showed strictly preverbal negation, though with negative morphemes of distinctly different phonological shapes, and neither showed any indication of a clause-final negative morpheme or intensifier. Other Central Tai languages to the south and west of Jingxi, however, show a pattern which suggests a historical source for the system of Yang, namely from a negative intensifier.

Gedney (1995) includes a wordlist and text for Western Nung, a Central Tai variety spoken by refugees from Muồng Khương, Lào Cai province, Vietnam; this area is approximately 240km west-southwest of Jingxi County. This data was collected by Gedney between 1964 and 1969, while members of this community were living in Vientiane, Laos.

Although Gedney provides a brief phonological description for this language, he does not provide a grammatical description for it here. From the sentences in the accompanying text and song, however, it appears that the main negator in Western Nung is /bɔɔ²/ or /boo²/, and occurs before the verb that it negates.

- (26) a. *saa*³ *bɔɔ*² *cau*⁵.
 [sa:²²? bɔ:²¹ tsau³¹]
 time NEG be
 “It is not the time.”³³ (Gedney 1995:775)
- b. *bɔɔ*² *mii*⁴ *haa*⁴ *pan*⁴ *.chay*³.*pan*⁴.*caan*³ *ɔaŋ*¹.
 [bɔ:²¹ mi⁴⁴ ha⁴⁴ pan⁴⁴ ts^hai²²?pan⁴⁴tsa:^ŋ22? ɔaŋ¹⁴]
 NEG have anybody be.ill any
 “There is no one ill, none at all.”

No clause-final particle is required in negative sentences, although the Nung negator seen here would appear to be cognate with the *boj* of Yang (likely a recent borrowing from Chinese—see footnote 24), which did not occur with *nauq*, either. Even the negative existential in (26)b shows no trace of *nauq*. However, Gedney's wordlist includes a word /naaw²/, which he glosses as “finished, completed.”

- (27) a. *ka.ðɣ*⁴ *ka*⁴ *day*¹ *naaw*².
 [ka⁴⁴ðɣ:⁴⁴ ka⁴⁴ dai¹⁴ na:^u21]
 everybody PTL good all
 “Everyone is all fine.” (Gedney 1995:776)

33 Gedney's text is given with both free translations and interlinear glosses, which I have changed as little as possible to fit the glossing system used in this paper. Where Gedney uses the gloss “not”, I have used NEG. I have retained Gedney's gloss “PTL”, which I assume means “particle”; in his wordlist, he gives the meaning “then, so” for this item. The first line of data is presented here in the same transcription system used by Gedney, with the second line an attempt to represent this using IPA and Chao tone numbers. My interpretation of his transcription system is based on his brief description (1995:407-8); I have deviated only in the case of <c> and <ch>, which Gedney groups with simple stops rather than describing them as affricates; based on Nong data (see the discussion in footnote 34), I am transcribing these as alveolo-palatal affricates. In trying to interpret the phonetic meaning of Gedney's <ð> symbol, it is worth noting that he lists this symbol in a category he calls “voiced sonorants” (1995:408), which includes /v ð l y/, and appears to correspond to Li's (1977) reconstructed /*r/ in Proto-Tai; this initial appears to correspond to /ɹ/ in many cognates in Yang. Note also that Gedney's tone category numbers do not correspond to the numbering system used for Zhuang languages. As can be seen in Gedney's tone chart (1995:407), on unchecked syllables, the following relationships hold: Gedney's tone 2 = Zhuang tone 5; Gedney's tone 4 = Zhuang tone 2; Gedney's tone 5 = Zhuang tone 6; Gedney's tone 6 = Zhuang tone 4. This is relevant here only to show that the lexical item which Gedney transcribes as /naaw²/, is likely cognate with the Yang Zhuang item *nauq* /na:^u5/, in spite of their different apparent tone numbers.

- b. *taŋ⁴* *ðuun⁴* *kaa⁴* *yuu²* *day¹* *naaw²*.
 [taŋ⁴⁴ ðuun⁴⁴ ka:⁴⁴ ju:²¹ dai¹⁴ na:u²¹]
 all house PTL be.at good all
 “The whole family was able to make a living, all (of us).” (Gedney 1995:775)

In these positive sentences—Gedney's text includes only positive sentences with /naaw²/—this element occurs clause-finally, in order to emphasize that the predicate is true of all members of “everyone” or “the whole family.”

Nong Zhuang of Guangnan County, Yunnan, appears to be very similar to Gedney's Western Nung variety, and can provide further illustrations of what appears to be the same word. Guangnan is approximately 170km northwest of Jingxi County and 150km northeast of Muồng Khuong, Vietnam, in the Wenshan Zhuang-Miao Autonomous Prefecture, and a number of Nong folktales from this area are included in Wang et al. (2016).

In a number of positive examples in Nong, the *nauq* particle is used following a verb or verb phrase in a way very similar to Chinese 完 *wán* “completely,” to express that an action has reached either a natural point of completion or an externally-imposed stopping point, as in this dialog.

- (28) a. *Dez* *dix* *zoq* *hax:* *'Hax* *nauq* *ejraj?'*
 [te³³ tɿ⁵⁵ tso¹¹ ha⁵⁵ ha⁵⁵ na:u¹¹ e²²ða²²]
 father 3 then say say completely TAG
 “Then his father said, ‘Is that all you have to say?’”³⁴ (Wang et al. 2016:39)
- b. *'Hax* *nauq* *eh.'*
 [ha⁵⁵ na:u¹¹ e³¹]
 say completely PFV
 “That’s all I have to say.” (literally: I have spoken completely.)
- c. *'Baeuq* *nauq* *ejraj?'*
 [pau¹¹ na:u¹¹ e²²ða²²]
 blow completely TAG
 “Are you done playing the flute?”
- d. *'Baeuq* *nauq* *eh.'*
 [pau¹¹ na:u¹¹ e³¹]
 Blow completely PFV
 “I’m done playing.”

However, it is also used phrase-finally in ways that resemble Gedney's Western Nung examples, where it does not denote completion, but emphasizes or intensifies the degree to which the predicate applies to the subject. All examples in Wang et al. (2016) where *nauq* has this sense are positive.

- (29) a. *Taemj* *maex* *mbumhmbinh* *nauq,* *lej* *dix* *zoq* *cham: ...*
 [t^ham²² ma⁵⁵ ʔbum³¹ʔbin³¹ na:u¹¹ le²² tɿ⁵⁵ tso¹¹ ts^ham²⁴]
 chop tree ONO intensely actually 3 then ask
 “In the midst of the racket of the chopping, he asked: ...” (Wang et al. 2016:30)

34 The orthographic forms for Nong are taken from Wang et al. (2016), but the (presumed) phonetic interpretation is based on the orthographic description in Johnson (2011). While this source gives a phonetic transcription of /c/ for orthographic <j> and <z> in syllable-initial position (with the choice between these two graphemes depending on the height of the following vowel), it seems likely that these graphemes actually represent affricates rather than simple palatal stops, on analogy to the use of these letters in Hanyu Pinyin. I have therefore transcribed them here using the symbols for alveolo-palatal affricates, which are still within standard IPA and are commonly used in the Chinese linguistic literature.

- b. *Hw naeh goj kai mboq zoah,*
 [hu²⁴ na³¹ ko²² k^ha:i ʔbo¹¹ tso³¹]
 market this also sell NEG away
naenx bae naenx maz, dij mu pyom nauq eh.
 [nan⁵⁵ pai²⁴ nan⁵⁵ ma³³ ti²² mu²⁴ p^hiom²⁴ na:u¹¹ e³¹]
 hurry go hurry come CLF pig thin intensely PFV
 “He couldn't sell the pig, and driving it to and fro, it became very thin.” (Wang et al. 2016:79)

It can also be used in negative contexts, reportedly with similar interpretations—expressing the completion of an action (eg, with negation as in (30), thus expressing a lack of completion), or emphasizing the degree to which a predicate holds. However, all examples with negation in the texts from Wang et al. (2016) have only the completion interpretation.

- (30) a. *Saehgux cha taeu naengz cha mboq nauq,*
 [θai³¹ ku⁵⁵ ts^ha²⁴ t^hau²⁴ naŋ³³ ts^ha²⁴ ʔbo¹¹ na:u¹¹]
 help 1 search.for louse still search.for NEG completely
mawz zoq ganx bae!
 [mau³³ tso¹¹ ka:n⁵⁵ pai²⁴]
 2 then dare go
 “You didn't even finish picking out my head lice, and you dare to leave like that!” (Wang et al. 2016:113)
- b. *Dix gaj ywngh gaj laemh,*
 [ti⁵⁵ ka²² juŋ³¹ ka²² lam³¹]
 3 the.more same the.more talk.about
laemh daengz mboq rux nauq.
 [lam³¹ taŋ³³ ʔbo¹¹ ɗu⁵⁵ na:u¹¹]
 talk.about all NEG know completely
 “He recounted stories about everything, he couldn't ever tell it all.”

3.4 Synthesis: The development of negation in Yang and surrounding languages

The significant variation in the expression of negation that was seen in the Tai languages just discussed suggests that the historical development of negation in this area is a complicated topic. However, these different negation systems instantiate nearly all the steps in a fairly standard example of Jespersen's Cycle. If no other data were available, it might be difficult to explain how so many Tai languages have negators of shapes resembling /mi/ or /mei/, /bo:/ or /bo:/, or the other negator etyma discussed by Pittayaporn et al. (2014), but that Youjiang Zhuang ended up with a main preverbal negator whose phonological shape is something like /na:u/. However, the appearance of *nauq* as a clause-final intensifier in Western Nung and in modern Guangnan Nong, along with its association with negation in Yang, are suggestive of historical development following Jespersen's Cycle by which *nauq* may have developed into the preverbal negator of Youjiang and other modern varieties. If the clause-final adverbial with this shape first became used as an intensifier of negation, the frequent co-occurrence of negation and a clause-final intensifier could have led speakers to re-analyze the intensifier as being associated with negation, losing the semantic effect of intensification, and eventually becoming the locus of negative meaning itself. The steps by which Jespersen's Cycle proceeds and the possible motivation for each step are discussed at length by van der Auwera (2009); what is most relevant for this paper, however, is that the modern languages in this area are suggestive of nearly all of these steps (when the steps are considered loosely), both before and after the current state of Yang in this hypothetical cycle. These are summarized in (31); the examples use each modern language's orthography.

- (31) a. single preverbal negator *cáu bô hã* “I didn't say.”
 ↓ Nung Fan Slihng (§3.2)
- b. verb quantified by final particle *gux mboq hax nauq* “I didn't say completely.”
 ↓ W. Nung / Nong (§3.3)
- c. negator intensified by final particle *gux mboq hax nauq* “I really didn't say.”
 ↓ (*reported for Nong, no examples*)
- d. intensifier bleaches to std negation *ngoq meiz hax nauq* “I didn't say.”
 ↓ Jingxi Yang (§2)
- e. preverbal negation optional, then lost *ngoq hax nauq* “I didn't say.”
 ↓ (*attested in Qin et al (2010)?*)
- f. final negator becomes preverbal *gu nauq hax* “I didn't say.”
 ↓ Tianyang Youjiang Zhuang (§3.1)

While this cannot be used in place of historical-comparative evidence to assert a specific historical relationship between these languages, the fact that these classes of systems are found in closely-related modern languages strongly supports the two claims (1) that the modern Yang negation system developed from something like what is seen in Western Nung today, and (2) that the modern Youjiang Zhuang system developed from something like what is seen in Yang today.

The two stages that are not clearly attested in modern languages of this area include a stage which is intermediate between Nong and modern Yang. In modern Nong, the attested occurrences of *nauq* with negation show it as an adverbial or intensifier modifying the predicate within the scope of negation, with a meaning like “completely”—for example, in “[not [completely [picking out the lice]]]” in (30)a. In this hypothetical Yang-precursor stage, *nauq* would have an interpretation more like “intensely” or “really,” similar to what is seen in the positive contexts in (29), but modifying or intensifying negation itself (“[[really not] [picking out the lice]]”).

The other stage which has not yet been shown in modern languages of this area represents the step between modern Yang and modern Youjiang Zhuang. In this missing stage, the association between *nauq* and negation could lead to *nauq* taking on the full sense of negation without the need for a preverbal negator at all, while *nauq* itself remains in clause-final position. In spite of the difficulty in interpreting the linguistic relationships in their data, Qin et al. do include examples which appear to be of precisely this type. In fact, their data includes examples where *nauq* occurs clause-finally without other negators (as in (32)), as well as where it occurs by itself immediately following the verb (as in (33))—corresponding to an as-yet undescribed situation which might not have a clear place as part of the Jespersen's Cycle change from Nung to Yang to Youjiang Zhuang). Some of their examples are reproduced below.³⁵

- (32) a. *Zangq.faeq menh baq aj.daeuq nauq.*
 [tsaŋ⁵.fai⁵ me:n⁵ pa⁶ a³.tau⁵ na:u⁵]
 Zhangfei COP father A-dou NEG
 “Zhangfei is not A-dou's father.” (source listed as Jingxi County)
- b. *Gou aeu zenz nauq.*
 [kou¹ au¹ tse:n² na:u⁵]
 I want money NEG
 “I don't want money.” (source listed as Baise City)

35 The data in Qin et al. (2010) is presented in broad IPA transcription, using tone category numbers rather than Chao pitch numbers, and includes a morpheme-by-morpheme gloss and free translation in Chinese, which I have translated into English. I have reproduced the original authors' IPA line as accurately as possible, including their tone numbers rather than pitch numbers. I have used the tone numbers to assign tone letters in the Standard Zhuang orthographic form on my first line, which is my interpretation of the original authors' IPA, but since the authors use tone category numbers rather than pitch numbers for their data so that examples from multiple locations are more directly comparable, I am unable to supply pitch for my IPA line here, as has been my practice with previous example sentences. Errors in translation from Chinese to English, or errors in applying Standard Zhuang orthographic form, are my own.

- c. *Gu suiq ndin nauq, gu ngan.moz.*
 [ku¹ θu:i⁵ din¹ na:u⁵ | ku¹ ŋa:n¹mo²]
 I wash foot NEG I massage
 “I don’t wash feet, I give massages.” (source listed as Nandan County)
- (33) a. *Gou gwn nauq louj.*
 [kou¹ kuu¹ na:u⁵ lou³]
 I eat NEG alcohol
 “I don’t drink alcohol.” (source listed as Bama County)
- b. *Baq vaz ngoq bae nauq gongq.yenz lwnz.*
 [pa⁵ wa² ŋo⁵ pai¹ na:u⁵ koŋ⁵jen² lən²]
 father and I go NEG park play
 “Father and I didn’t go to the park for fun.” (source listed as Jingxi County)
 (data in (32) and (33) from Qin et al 2010:14)

As mentioned above, it is difficult to interpret precisely which Zhuang varieties these examples represent, since, even though there is a large degree of variation within each county, these authors list only the names of the counties where the data was obtained. Although two of the examples above are listed as coming from Jingxi County, the three speakers of Yang whose sociolect this paper focuses on did not find those sentences grammatical. In addition to showing that some of these “missing” developmental stages may exist in other Zhuang varieties in this area—though their absence from modern languages would not directly invalidate the claim of this path of historical development—at a minimum this data further illustrates that the linguistic variation in this region is extremely complex.

If the unusual negation systems seen with *nauq* are properly understood as representing a case of Jespersen’s Cycle, the consequences are actually broader than simply improving our understanding of a few isolated languages. From a wider comparative perspective, two quite different proposals have been published for the development of negation in this language group—one proposal for the Tai-Kadai language family and one for just the Tai branch. These proposals are somewhat in conflict with each other, and there is no simple way to reconcile them with each other. However, since the Tai-Kadai proposal was based on a significant amount of the “strange” data involving *nauq*, the suggestion that Jespersen Cycle effects are at work here makes the Tai proposal more plausible than the one for Tai-Kadai.

The Tai-Kadai proposal is found in Qin et al. (2010), who discuss a wide range of negation data for Zhuang languages in western Guangxi, as well as data for a few other Tai-Kadai languages, and use this data as the basis for a reconstruction of the Proto-Tai-Kadai negation system. Of particular interest to the question here are their examples of negated sentences with the word *nauq*. They include examples from Youjiang district (formerly Baise City) and from Bama, Jingxi, Tianlin, and Nandan counties in Guangxi, from Zhuang languages that appear to be from both Northern Tai and Central Tai branches. In this wide range of data, the word *nauq* occurs as a single negator in nearly all possible locations in a typical SVO clause: immediately before the subject, immediately before the verb, immediately after the verb, and clause-finally. The data also includes example sentences with two occurrences of *nauq*—one preverbally and one clause-finally—as well as sentences in which *nauq* occurs with other negators. For the reasons already mentioned, interpreting how these examples relate to other examples of negation from these areas is difficult. Presumably even the authors would acknowledge that no single language or dialect from this area allows all of the negation constructions that are listed.

After presenting this wide range of data, the authors discuss possible sources for this range of data. While they do not state this explicitly, it seems that they assume the bipartite and non-preverbal constructions must represent retentions from a historical negative construction that involves something besides a preverbal negator; they do not seem to consider developments à la Jespersen’s Cycle as a possible source for this range of negative constructions. In addition to the Zhuang data they list (from the Central Tai and Northern Tai branches), they cite Li & Wu (2008) for bipartite negation data from Buyang, Gelao, and Lachi, all of which are Kra languages of China and Vietnam, and conclude that the source for all of these bipartite systems should be found no later than their most recent common ancestor, which roughly speaking would be Proto-Tai-Kadai. Since other languages in Sino-Tibetan in general (which these authors consider Tai-Kadai to be a part of) do

not have clause-final negation or bipartite or tripartite negation systems, this hypothetical historical source should also be no earlier than Proto-Tai-Kadai.

Moving beyond this family, though, Qin et al. go on to give the following data from Thai, Khmer (Austro-Asiatic, Mon-Khmer), and Burmese (Tibeto-Burman), along with additional Cham (Austronesian, Malayo-Chamic) examples from Lee (1996), which they claim are all cases of bipartite negation systems. The relevant morphemes in each are italicized on the romanization line.³⁶

(34) Thai:

- a. เขา ไม่ มี แม่ เลย
khǎw mây mii mĕɛ ləəy
 [k^hǎw mâj mi: mĕ: lɛ:j]
 3S NEG have mother at.all
 “S/he does not have a mother at all.”

(Qin et al. 2010, citing Lee 1996; note that in Qin et al., the free translation is 他没有妈妈 *tā méiyǒu māma* “He doesn't have a mother”, and *ləəy* is glossed as “不 *bù* not”)

- b. ฉัน ไม่ ชอบ เลย
chán mây chǒp ləəy
 [te^hǎn mâj te^hɔ:p lɛ:j]
 1S NEG like at.all
 “I don't like it at all.”

(Qin et al. 2010, citing Lee 1996; note that in Qin et al., the free translation is 我不喜欢 *wǒ bù xǐhuān* “I don't like it”, and *ləəy* is glossed as “不 *bù* not”)

(35) Khmer:

- a. ខ្ញុំ មិន ដឹង ទេ
khñom min dəŋ tee
 [k^hñom min dɛŋ te:]
 1 NEG know NEG
 “I don't know.”

- b. ខ្ញុំ មិន ដឹង ថា វា មក ទេ
khñom min dəŋ thaa via móo tee
 [k^hñom min dɛŋ tha: viə moɔ te:]
 1 NEG know that 3S come NEG
 “I didn't know he was coming.”

(Qin et al 2010, citing Ehrman 1972; romanization is as found in Qin et al.)

(36) Burmese:

- a. ဒီ ကား ရန်ကုန် ကို မ သွား ဘူး ၊ နောက် တစ်စီး စီး ပါ ။
di ka: yangoun gou ma thwa: bu: no' ta=si: si: pa
 [di: ká: jǎ:gõõ gòɔ mə θwá: bú: nóʔ tə=sí: sí: pà:]
 this car Rangoon to NEG go NEG next one-CLF:vehicle travel POL
 “This car does not go to Yangon. Take the following (one).”

(Qin et al 2010, citing Vittrant 2002; romanization is changed from original source)

While all of these negation systems are worth examining in more detail, it may not be warranted for Qin et al. to group all of these together as bipartite negation systems; this may be a misunderstanding of the original

36 Rather than simply copy the data from Qin et al. (2010), I have attempted to go back to their original sources as much as possible. In order to add an orthographic and IPA representation for each example, I also checked the data with Lon Diehl, a linguist who is much more familiar with these languages than I am. I am extremely grateful for his kind help, though any remaining errors or misunderstandings are my own. The IPA transcription for Thai follows what is used on www.thai-language.com.

claim made by Lee (1996). His original claim is that Thai and Northern Khmer, along with Vietnamese and Chrau (a Bahnaric language of the Mon-Khmer family), have negative constructions in which a second element can be used to intensify the negation, though they are not bipartite negatives per se. The Thai examples in (34) involve a clause-final element which seems to be precisely this kind of intensifier, though Qin et al. gloss it simply as negation. In fact, Lee says specifically "... I don't know of any [languages in SE Asia] outside of Chamic with a clear bipartite negative" (Lee 1996:312). Quite interestingly, though, the clause-final negative particles from Khmer and Burmese seem suspiciously similar to the clause-final *nauq* seen in Yang. While the details of their occurrence are not identical, the Khmer particle 𑜀𑜂𑜆𑜐 *tee* can even be used as a single-word negative response to a question just like *nauq* in Yang. In spite of this similarity, Khmer is listed in the WALS database (Dryer 2013) as having only a single negative morpheme, while Burmese is listed as having obligatory double negation.

Qin et al.'s argumentation is intended to lead up to and support their claim that the negation system of Proto-Tai-Kadai should be reconstructed to have a single clause-final negative particle with no preverbal negator, from which they argue the wide range of negation options they present—single negation both adjacent to the verb and clause-finally, as well as bipartite and tripartite examples—has developed. Moreover, based on the additional data from languages of Southeast Asia both within and outside of Tai-Kadai—the Chamic languages described by Lee (1996), as well as Thai, Burmese, Cambodian, Vietnamese, and other Mon-Khmer languages which they claim show two-part negators—Qin et al. suggest that two-part negation should actually be considered an areal feature of Southeast Asia. Setting aside for a moment the status as an areal feature, this analysis would require that all modern Tai-Kadai bipartite and tripartite negation systems, as well as Tai-Kadai systems with a single preverbal negator, would have developed historically from a system with only a clause-final negator. Those modern languages that have clause-final negation, even as part of a bipartite or tripartite construction, would represent retentions from this historical source; presumably, modern Tai-Kadai systems with solely preverbal negators would have developed from this hypothetical historical system either under the influence of general typological tendencies or through contact with languages that have single preverbal negators, such as Sinitic languages. While this might seem plausible to explain the apparently wide range of negation constructions listed by Qin et al., it seems to run counter to the fact that a preponderance of modern Tai languages have only a single preverbal negator.

The proposal of Qin et al. for negation in Proto-Tai-Kadai as a whole conflicts with the Proto-Tai reconstruction of Pittayaporn et al. (2014), who reconstruct a negation system comprised of three preverbal negators: /**baw*^B/ and /**mi*/, standard negators, and an aspectual negator /**paj*^B/. With the exception of the modern phonological shape of the aspectual negator, the system of Nùng Fan Slihg appears to retain precisely this structure, with standard negation expressed preverbally with the negators *bô* or *mi*. The system of Western Nung and Nong Zhuang of Guangnan County is also quite similar, with a standard preverbal negator /*boo*²/ or /*boo*²/ (in Gedney's transcription), orthographically *mboq* in the Yunnan Southern Zhuang experimental orthography.³⁷

Supposing for a moment that the Proto-Tai proposal of Pittayaporn et al. were correct, then the clause-final negators and the bipartite systems that are seen in some Tai languages today, like Yang, would have to have developed after that time and could not represent a retention from Proto-Tai-Kadai. And yet, these languages were part of the very motivation for Qin et al.'s proposal, representing retentions from Proto-Tai-Kadai. Clearly, these proposals in their simplest forms cannot both be true.³⁸

37 Neither Gedney nor Wang et al. (and other information on Nong Zhuang from Eric Johnson, p.c.) describe any negators resembling the *sahng* or *zaengz* aspectual negators discussed above in Nùng Fan Slihg and Yang, which would be cognate with the Proto-Tai /**jan*^A/ reconstructed by Pittayaporn et al. (2014). However, Gedney's lexicon lists a Western Nung word /*pay*²/, which he glosses as "yet"; Nong Zhuang has both *baeq*, which Johnson glosses as "没有 *méiyǒu* ; or not", and also a clause-final negative polarity item *naeq*, meaning "(not) yet" (with <q> in both items representing Zhuang tone 5, the same tone category as Gedney's tone 2). Pittayaporn et al. list both forms with initial plosives as cognate with the Proto-Tai aspectual negator /**paj*^B/, but not the nasal-initial form. Since the development of the aspectual negators is not the focus of this paper, these differences will be ignored.

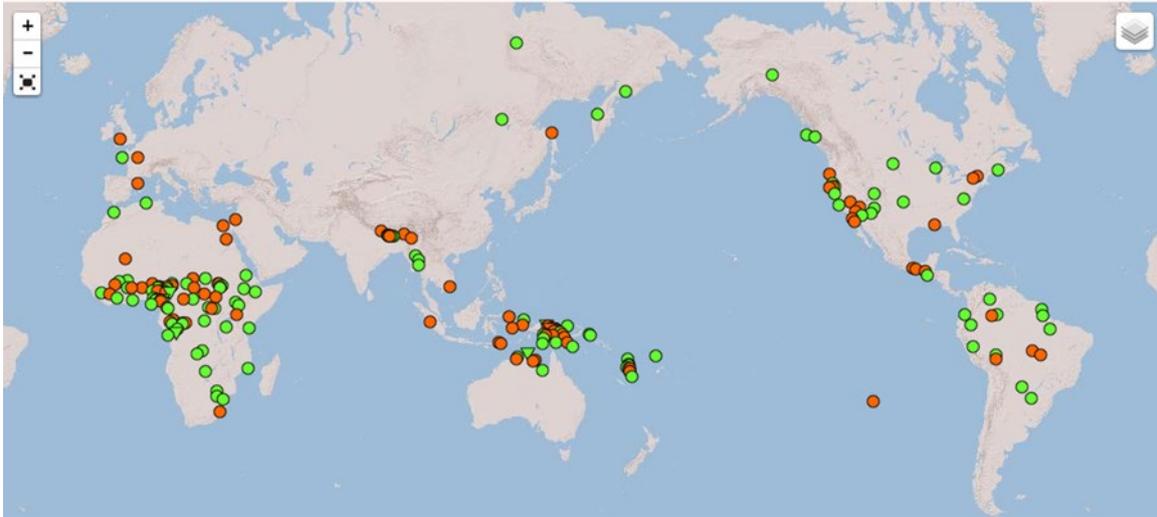
38 There are more complicated ways to account for this difference, such as suggesting that Yang is not directly descended from Proto-Tai but instead represents the language of an originally Kra-speaking community who assimilated to Tai-speaking communities around them. Or again, even if Yang directly descended from Proto-Tai, it could have been influenced back to a state with clause-final negators based on contact with Kra languages that have clause-final negators. As for this latter possibility, given the high social status that Yang appears to have in the area where it is

To evaluate the relative plausibility of these two proposals, it is important to consider the motivation that led Qin et al. to reconstruct the historical system of Tai-Kadai that they did. If the only source of modern negation systems with a clause-final negator is retention from a historical system with a clause-final negator, then in order for such a morpheme to be retained in modern Yang, the negation system at the stage of Proto-Tai would have to also retain a clause-final negative morpheme. However, historical changes according to Jespersen's Cycle provide an alternative and well-attested means for bipartite systems and systems with clause-final elements to develop. Van der Auwera (2009) even briefly discusses the possible development of what appear to be tripartite negation systems from the same diachronic changes that are operative in Jespersen's Cycle. Particularly in the case of Yang, with what appear to be several stages of this development attested in neighboring language varieties, this seems to be a very plausible way for the modern bipartite system to develop even from a strictly preverbal negation system like what Pittayaporn et al. reconstruct for Proto-Tai. Moreover, this hypothesis also explains how a two-part system with a clause-final *nauq* could subsequently develop into the negation systems with a single preverbal negator *nauq*—which does not appear to be cognate with other negators in Tai—that are seen in Youjiang Zhuang and in some other Zhuang-speaking areas.

Even though negation by something other than a preverbal morpheme may seem odd when considering the prevalence of preverbal negative morphemes in SVO languages of East and Southeast Asia, negation systems with multiple exponents are not rare globally. As mentioned at the beginning of this paper, the WALS database (Dryer 2013) shows 200 out of the 1324 languages globally in that database that are described as having negation systems with more than a single marker—bipartite or tripartite systems, whether constructions with more than one negative morpheme are optional or required. Although there appear to be quite a few languages with these characteristics in sub-Saharan Africa and in New Guinea, a casual examination appears to show that such languages are not limited to one or a few particular areas of the world. To be fair, the data in WALS is not exhaustive, nor is it distributionally representative. Because of this, strong conclusions cannot be made based on the absence of data or on relative proportions of data. The apparent clusters of languages with bipartite and tripartite negation systems may simply reflect the fact that the WALS data set includes more languages from those areas than it does from, for instance, Southeast Asia—some of the Kra languages referred to by Li & Wu (2008) are absent from the WALS data set, for example—or that a greater degree of language diversity is found in some areas of the world as compared to others, or even that certain other typological features may predispose a language or language family to the development of multi-exponent negation. What the data does show, however, is that bipartite and tripartite negation systems are not vanishingly rare, nor can we conclude that they are limited to one area of the world.

spoken, it seems unlikely that it could have been influenced in the direction of the less populous and less prestigious Kra languages. The former suggestion, however, will be considered below.

Figure 3: Data from WALS (Dryer 2013) showing locations of languages with bipartite and tripartite negation systems. Key: green circle, 114 lgs: "Obligatory double negation"; orange circle, 80 lgs: "Optional double negation"; green inverted triangle, 5 lgs: "Optional triple negation and obligatory double negation"; orange inverted triangle, 1 lg: "Optional triple negation and optional double negation." Map generated from <http://wals.info/feature/143A>.



Even if Qin et al.'s proposal for negation in Proto-Tai-Kadai is not justified by this data, these authors do make the interesting observation that a number of languages in Southeast Asia from different language groups (Tai-Kadai, Tibeto-Burman, and Mon-Khmer, at least) all seem to have a pre-verbal negative morpheme as well as a particle that is associated with negation but otherwise patterns with a set of clause-final tense, aspect, and mood (TAM) particles, sometimes competing with them, as appears to be the case for $\text{ɔ̃} \text{bu}$: in Burmese (Miestamo 2008:123, citing Cornyn 1944), and sometimes occurring freely with them, as was seen for Yang. If the reanalysis of a clause-final intensifier into a marker of negation happened in the historical development of Yang, it is also possible that similar processes could be responsible for the development of the other non-Tai-Kadai two-part negation systems in Southeast Asia. The fact that multiple languages can associate a clause-final particle with some semantic correlate of negation may point to a more general semantic property of human languages, along the lines of the observation that many unrelated languages nevertheless lexicalize similar tense, aspect, and mood categories. Indeed, Beyer (2009) describes similar examples of double negation marking—one element associated with the verb and the other associated with clause-final particles—from a wide range of unrelated languages of West Africa. Perhaps more basic areal characteristics of these languages, such as that they are isolating languages with adverbial modifiers placed clause-finally, or in some cases verb complexes that occur clause-finally, are responsible for the apparently frequent development of clause-final particles associated with negation. The occurrence of bipartite negation systems would then emerge as a second-order feature, dependent on these other language characteristics for its frequency. Whether this can be said to be an areal feature, or whether it is simply a property of languages with clause-final TAM particles that one of those particles may relate to negation, is a question which deserves further study, but a definitive answer is beyond the scope of this paper. More detailed semantic analysis of these Southeast Asian bipartite negation systems may reveal nuances like the ones which were suggested in Yang—that the clause-final particle is associated with a semantic interpretation which is slightly different from that of the preverbal negative morpheme itself. Alternatively, more detailed analysis of those languages' bipartite systems may reveal further complexities completely unlike the system in Yang, an outcome which can only improve our understanding of negation in the languages of Southeast Asia.

Before concluding, it is worth considering a more complicated interpretation which would potentially also remove the conflict of Qin et al.'s (2010) reconstruction for Proto-Tai-Kadai and Pittayaporn et al.'s (2014) reconstruction for Proto-Tai. Namely, the modern negation system of Yang might not represent a direct retention of the Proto-Tai-Kadai system, but instead different aspects of the modern Yang system could represent sources that are separately from Tai languages and from Kra languages as a complex result of

language contact.³⁹ Li (1999) and Li & Luo (2006) suggest that the autonym *yang*, which is otherwise primarily seen in some varieties of the Kra language Buyang, may indicate that the modern Tai-branch communities that use this autonym originally spoke a Kra language, and later assimilated to the language of their Tai neighbors. In this proposal, some of the Kra syntactic substrate has been retained, including a clause-final negative morpheme, but the lexicon has been shaped by extensive contact with neighboring Tai languages, including the adoption of preverbal negators.

The Kra languages which are geographically closest to Yang Zhuang are the Buyang varieties known as Yalang or Yerong, Ema, and Langjia,⁴⁰ as well as the En or Nùng Vên language of Vietnam (ISO 639-3 code [enc], spoken in Nội Thôn village, Hà Quảng District, Cao Bằng Province, Vietnam).⁴¹ While geographic distance does not always correspond to linguistic genetic difference, these Kra varieties will at least be the most suggestive for this comparison. Negation in varieties of Buyang is described by Edmondson (2008), and several parallel examples of negation from that paper are repeated below.

- | | | | | | | |
|------|----|----------|--------------------------------------|------------------|-------------------|---------------------------------------|
| (37) | a. | Paha: | [pa ³³ nau ³³ | kɔ ³³ | pi ⁴⁵ | θa:i ⁴⁵ θa ³¹] |
| | | | who | also | NEG | know |
| | b. | Yalang: | [va ³¹ ni ¹² | zɛ ⁵³ | ka ³³ | la ³¹] |
| | | | who | also | know | NEG |
| | c. | Ecun: | [va:i ³³ nɔ ³³ | kɔ ³³ | ʔde ⁵⁵ | na:i ⁵³] |
| | | | who | also | know | NEG |
| | d. | Langjia: | [ma ⁰ nɔ ¹¹ | kɔ ⁵⁴ | tin ¹¹ | la:i ¹¹] |
| | | | who | also | know | NEG |
- “Who doesn't also know?”

Paha Buyang (ISO 639-3 code [yha]), shown in (37)a, is a language variety found further to the west in Guangnan County, Yunnan, and unlike the others uses a preverbal negator of the shape [pi⁴⁵]; the other three Buyang varieties which are geographically close to Yang have sentence-final negators. In this hypothetical language contact scenario, the modern Yang clause-final negator *nauq* would be a retention of a Kra negator like those in (37), while the Yang preverbal negators would represent borrowing from neighboring Tai languages. Recall that independent of the phonological realization of any of the negative morphemes, the abstract structure of the Yang negation system is the same as was reconstructed for Proto-Tai by Pittayaporn et al (2014)—two plain preverbal negators and one aspectual preverbal negator—with only the addition of the clause-final element co-occurring primarily with only one of the preverbal negators.

This complex contact explanation for the bipartite system of modern Yang, however, cannot explain three aspects of the modern linguistic situation, while a Jespersen's Cycle account handles at least two of these nicely. First, the complex contact explanation says nothing about why the clause-final negative morpheme has the shape that it does—*nauq*, rather than something that more closely resembles the segmental form of a Kra postverbal negator, the closest of which is perhaps [la:i] or [na:i]. Second, the complex contact explanation says nothing about the source of the unusual preverbal negator *nauq* of Youjiang Zhuang, nor why it should have a segmental form that is identical to the clause-final negator of Yang—that is, why in some Zhuang

39 This possibility was highlighted in personal communication with Andrew Hsiu.

40 Yalang corresponds to ISO 639-3 code [yrn], and is spoken in Longhe and Pohe Districts, Napo County, Guangxi, China (in characters, 广西那坡县龙合乡和坡荷乡). Ema, sometimes also referred to as Ecun, appears to correspond to ISO 639-3 code [yzg], and is spoken in several villages in Gula District, Funing County, Wenshan, Yunnan, China, including E Village, Maguan Village, and others (in characters, 云南文山州富宁县谷拉乡). Langjia corresponds to ISO 639-3 code [yln], and is spoken in natural villages named Langjia and Nianlang within Gula District, Funing County, Wenshan, Yunnan, China (in characters, 云南文山州富宁县谷拉乡郎架和念郎). These locations are listed somewhat variously on Wikipedia (https://en.wikipedia.org/wiki/Buyang_language) and Baidu Baike (<https://baike.baidu.com/item/布央语>); similar location names are given in Li and Luo (2006), but additional location information as listed on Wikipedia and Baidu may come from one or both of Mo (2016) or Li & Luo (2010).

41 Although Wikipedia (https://en.wikipedia.org/wiki/En_language) and the Ethnologue (<https://www.ethnologue.com/language/enc>) both list this village as the location where speakers of En live, it is unclear what published source this claim originates from. Although the Ethnologue lists a vague “1998 J. Edmondson” for the En population figure, it seems most likely that the population and location information actually come from Edmondson et al. (1999).

languages this contact resulted in a clause-final negator with a form vaguely like a Kra negator, yet in other Zhuang languages this contact resulted in a preverbal negator with this same form. A Jespersen's Cycle account for Yang provides a ready explanation both for this development in Youjiang Zhuang as a natural progression of what is seen in Yang, and for the shape of this clause-final-cum-preverbal element which would have been derived from the intensifier seen in Western Nung and Nong Zhuang.

Third, the complex contact explanation does not predict that the clause-final negative element in Yang should only occur with one of the preverbal negators rather than all three. The Jespersen's Cycle account has nothing to say on this point, either, though this may be due to the fact that the semantic difference between the two standard negators has yet to be worked out.

To be clear, the Jespersen's Cycle account proposed in this paper is not incompatible with Li and Luo's (2006) hypothesis that the community who now speaks Yang descended from a community that originally spoke a Kra language. This paper merely claims that the modern Yang Zhuang clause-final negative element is best given a cyclical source, and is not likely to be a syntactic reflection of a historical Kra syntactic substrate.

4 Conclusion

Tai languages in China, most of which are spoken by members of the official Zhuang nationality, are not completely undocumented, but are certainly less well documented than many comparably-populous language groups around the world. Because of this, any published resources on these languages are highly valuable. Since there is a high degree of language variation in this area, however, the interpretation of any published data can become difficult, and it is this difficulty which prompted the extremely narrow focus of the current paper: the unusual properties of the negation system of just one age-delimited and region-specific sociolect of Yang, a Zhuang language spoken of southwestern Guangxi. Subsequent comparison with additional published data has shown that the curious properties of this system—a system of bipartite negation with both a preverbal and a clause-final element—are naturally explained as an example of Jespersen's Cycle. This hypothesis further explains the negation systems of certain nearby language varieties—those with only a clause-final negator, and those which have a preverbal negator, of the otherwise-unreconstructed shape *nauq* [nə:u^{5/B1}]—which are otherwise quite puzzling. Although questions do remain about certain aspects of this system, such as why the clause-final element occurs only with one of the preverbal negators in Yang, and what semantic differences exist between the two standard preverbal negators, the explanation for the development of this system is both a contribution to the literature on Tai languages as well as another example of Jespersen's Cycle in languages of Southeast Asia.

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Reviewed: Received 27 September 2018, revised text accepted 14 January 2019, published 22 February 2019

Editors: Editor-In-Chief Dr Mark Alves | Managing Eds. Dr Paul Sidwell, Dr Nathan Hill, Dr Sigrid 27