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Sinitic and Tibeto-Burman

The internal phylogeny of the Sino-Tibetan language family has long been a matter of discussion. In this presentation, a variety of evidence from phonology, morphosyntax and lexicon is presented showing that the Sino-Tibetan language family is well-supported by comparative linguistic evidence, that Sinitic was the first branch from Proto-Sino-Tibetan, and that Karenic was the first branch from residual Proto-Tibeto-Burman. This evidence includes various regular sound changes shared by the Tibeto-Burman languages but not by Sinitic, also morphological, syntactic and lexical changes. The long-term effect of contact leading to substantial morphosyntactic and lexical changes is also discussed and briefly exemplified.

This view is supported by a variety of archaeological, genetic and other information to show that the likely location of the Proto-ST community was the Yangshao Culture from circa 7000 years ago, and the likely location of the Proto-TB community was the Majiayao Culture from circa 5300 years ago. Archaeological and comparative linguistic evidence about crops, domestic animals and metals also assists in tracing the chronology of later splits within Tibeto-Burman. Climate changes were also an important factor in many of the splits.

Keywords: Sino-Tibetan, Sinitic, Tibeto-Burman, phylogeny, crops, animals, climate

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Language Contact and Integration in China

Kong Jiangping

Abstract

There is a debate about the origin of human beings with single origin and multiple origins, but now genetic archaeology proves that the current human beings all over the world are modern humans (a subclass of Homo sapiens) who migrated out of Africa for the third time 150,000 years ago.

After the spread of modern man throughout the world, nine geographical types of man were formed. This kind of ethnic differentiation can be inferred that the languages of this period were in a state of differentiation.

12,000 years ago, the last ice age ended, temperatures rose, farming civilization arose, humans began to settle, and the population increased. In search of new lands and continents, humans began to migrate and colonize. The evolutionary form of language changes into contact, blending and integration.

In the mid-18th century, the world entered industrial civilization, and the population began to migrate to cities on a large scale. Most national languages lost their linguistic ecology, and languages were merged or died out. The evolutionary form of language is contact, integration and endangered.

Globalization is the development direction of human society. One or several international languages will definitely be formed. There are currently six working languages in use at the United Nations (Chinese, Spanish, English, French, Russian, Arabic).

At present, China is in the transitional period of agricultural civilization and industrial civilization, and the historical ethnic migration has no longer appeared. In addition, China is currently in the process of large-scale urbanization, which mainly involves individuals and families migrating to cities. Due to the high degree of cultural identity, ethnic communities are usually not formed in cities. Therefore, the linguistic ecology of ethnic groups will disappear, while the linguistic ecology of the original place of ethnic groups will remain.

On the whole, the language of the Chinese nation is a huge language system formed together with the Chinese nation in the continuous integration of nationalities, that is, the Chinese national language community.

In order to study the formation and composition of the Chinese language community, we have adopted the method of language contact and integration to conduct a large-scale survey of the situation of Chinese language, including:1) Basic information of Ethnic and linguistic sources; 2) Basic information of respondents; 3) Language vitality; 4) Writing vitality; 5) Survey of common spoken words and borrowed words（3070）; 6) Phonemic system. A total of 121 languages were surveyed, divided into 17 language groups. On this basis, we build a large database and evolution model of the "Chinese ethnic language Community".

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Nominalization in Pangkhua

Tibeto-Burman languages are renowned for their intricate grammatical utilization of structures, which can be analyzed synchronically as nominalizations or traced historically back to nominalizations (Matisoff 1972, Noonan 1997, Bickel 1999, Genetti et al. 2008, DeLancey 2011, Yap, Grunow-Hårsta, and Wrona 2011, *inter alia*). Pangkhua, situated within this language family and spoken in the Chittagong Hill Tracts of Bangladesh, demonstrates a rich array of nominalization constructions, employing various dedicated nominalizing morphemes. These Pangkhua constructions can be broadly categorized into two types: "phrasal" and "clausal" nominalizations. Phrasal nominalizations mimic the syntax of noun phrases, often marked with typical noun phrase elements like definiteness, demonstratives, and topic markers. They typically remain uninflected for number, tense, aspect, and modality, owing to the derivational nature of the nominalization processes involved, which frequently yield an NP argument. Conversely, clausal nominalizations, being inflectional in nature, commonly exhibit inflection for tense, aspect, and modality. They do not typically bear the markers associated with noun phrases, such as topic and demonstrative markers. Unlike phrasal nominalizations, which result in or derive an 'argument', clausal nominalizations tend to be predicative. They serve various functions including as adverbial clauses, relative clauses, and complement clauses. Moreover, they can stand independently as free-standing clauses, conveying a distinct style and/or strength of assertion, thus representing pragmatically marked constructions. The data for this study was collected through original fieldwork conducted in Pangkhua Para, Chittagong Hill Tracts, Bangladesh, spanning the years 2017 to 2020.

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Versatile Nominalizations in Hwari Tibetan

Tibeto-Burman is known for its versatile nominalizations. They plays a vital role in the morphosyntax of many Tibetic languages. This paper describes the nominalization strategies which include affixation, zero derivation and stress in Hwari Tibetan, an Amdo variety spoken at the north-eastern edge of the Tibetan Plateau (Hwari Tibetan Autonomous County). Besides its usage at the lexical level, we also review extended uses of nominalization construction on a syntactic level. In this particular language, nominalization has developed multiple functions which include modifying functions and complementation. In some cases, nominalization constructions have been reanalyzed as finite constructions., and sometimes further developed into stand-alone constructions with stance interpretation. In this article, we also look at the nominalization in a diachronic perspective, examining how nominalizers and nominalization constructions over time develop multiple functions from its proto-typical usage, and what are the driving forces causing grammaticalization of such.

Key words: nominalization; nominalizer; Hwari Tibetan; grammaticalization; function

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Post-verbal "go" and "come" in Tangut

Over the past decade, there has been increasing recognition of the intricate verbal complexity within Tangut morphology. Building upon the templatic analysis of Tangut verbal morphology proposed by Jacques (2011, 2014), recent studies have delved into the discovery of various non-finite forms intricately woven into a tense-aspect-mood-evidentiality (TAME) system closely resembling that of Geshiza Horpa (Beaudouin, 2023; Honkasalo, 2019).

While the category of auxiliaries in Tangut is well-established, challenges persist in accurately labeling them, as evidenced by discrepancies in prior works such as Li (2008). These auxiliaries play a part in encoding TAME and indexing actants, blurring the distinction between them and verbs.

This presentation sheds light on a specific subset of auxiliaries, namely those associated with movement verbs, currently limited to "go" and "come," where the inherent meaning of the movement verb appears to be relatively absent.

Through an examination of their functionality and a comparative analysis with similar phenomena documented in related languages (Lai, 2017; Zhang, 2020), this study seeks to ascertain whether the label "associated motion" accurately encapsulates these morphemes. Additionally, it endeavors to uncover their origins and unique synchronic characteristics concerning the broader framework of indexation parameters and TAME to which Tangut verbs adhere.

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Quantifiers in Bodo

Keywords: Bodo language, quantifiers, morpho-syntactic patterns, A-quantifiers, D-quantifiers

This study delves into the intricate area of quantifiers within the Bodo language, an indigenous language spoken predominantly in the Bodoland Territorial Region of Assam, Northeast India. Quantifiers, integral components of natural languages, serve as crucial elements in expressing numerical values, degrees, and amounts, playing a pivotal role in indicating the scope or quantity of a statement. Through an exhaustive analysis of Bodo quantifiers, this study sheds light on their unique morpho-syntactic features. The investigation encompasses a wide array of quantifier types in Bodo, ranging from numerical and existential quantifiers to universal quantifiers, unveiling the intricate grammatical nuances and linguistic functions they perform within the language. One significant contribution of this study lies in the differentiation between D-quantifiers and A-quantifiers, as proposed by linguists like Partee (1995) and Keenan (2017). D-quantifiers construct expressions that serve as arguments of predicates, whereas A-quantifiers directly shape predicates, manifesting as verbal affixes, pre-verbal elements, auxiliary verbs, or predicate modifiers such as adverbs. It is to be noted that there is hardly any extensive research done in Bodo in this area. In Bodo, quantifiers occur as phonologically independent words in clauses. Normally, D-quantifiers come before nouns in noun phrases, following the QN order, although there are cases where quantifiers come after nouns in the NQ order. The additive *=bɯ* enclitic is an obligatory element in bare Universal Quantifiers but not in bare Existential Quantifiers. However, if existential D-quantifiers come after nouns in the NQ order, they can take nominal inflections such as number, case, and enclitic (including the additive *=bɯ*). Certain Universal Quantifiers are exclusive to negative contexts, termed Negative Polarity Items (NPIs), while others can occur in both negative and positive contexts. Unlike Universal Quantifiers, Existential Quantifiers demonstrate features like reduplication and the use of multiple quantifiers. In addition, this study looks into the pragmatic contexts that trigger the distribution of the various quantifiers.

Examples:

1) ***makʰase*** ***bipʰaŋ-pʰra*** *ran-nɯ* *hom-dɯŋ*
some tree-PL.NOM dry-INF catch-RLS
'Some trees began to dry out.' [**CQPweb:** BdW13_ZB20]

2) *be-ni* *ongajɯi=bɯ* *subuŋ-a* ***ekʰombla*** *gao=nɯ* *gao*
this-GEN without=ADD person-NOM often self-COR self
raga *zɯŋ-kʰaŋ-gun*
anger light-up-FUT
'Frequently, the individual tends to experience anger on their own following that.'
[**CQPweb:** BdW13_D30]

3) ***sa-pʰrum=bɯ*** ***subuŋ-a=nɯ*** *lagzarias* *ziu* *kʰuŋ-nɯ*
CLF-all=ADD person-NOM=COR luxurious life shape-INF
lubɯi-jɯ
wish-NEUT
'Everyone wants to live a luxurious life.' [**CQPweb:** BdW13_F05]

4) ***ʒebla=bɯ*** *tʰakʰɯma* *dunkʰɯma* *kʰalam-nɯ* *naŋ-a*
when=ADD hide (self) hide (other) do-INF need-NEG
'Always don't hide yourself and others.' [**CQPweb:** BdW13_D47]

(5) ***bipʰaŋ*** ***makʰase-pʰra=bɯ*** *ran-nɯ* *hom-dɯŋ*
tree-PL.NOM some-PL.NOM=ADD dry-INF catch-RLS
'Some trees too began to dry out.' [Constructed]

(6) ***kʰaipʰa*** ***kʰaipʰa*** ***aizɯ-a*** *zi* *da-nanɯi* *pʰan-nanɯi*
some some women-NOM cloth weave-NF sell-NF
nokʰor *soŋsar* *salai-jɯ*
family world raise-NEUT
'Some women raise their families by weaving and selling clothes.'
[**CQPweb:** BdW13_Y15]

(7) *haba-ni* *sigaŋ* ***gɯbaŋ*** ***makʰase*** ***pʰali-naŋ-gɯɯ*** ***nem*** *boro*
marriage-GEN before many some observe-need-AFF rule boro
somaz-ao *doŋ*
society-LOC exist
'In Boro society, many rules exist that one must comply with before marriage.'
[**CQPweb:** BdW13_D26]

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Evidentiality and interrogativity in Lalo Yi

Cross-linguistic data suggest that in some languages evidentials cannot be used in interrogatives，Yet many languages allow the evidential markers to occur in interrogatives(e.g., Aikhenvald, 2004; San Roque et al. 2017). The distributional patterns of evidential marking with respect to sentence type are shown in Table 1.

Table 1 Evidential contrasts in interrogatives and declaratives（San Roque et al. 2017:126）

	Evidential contrasts	Example language(s)
Symmetrical	Declarative = interrogative	Qiang, Duna
Asymmetrical	Declarative > interrogative	SAME MARKERS: Hup, Quechua DIFFERENT MARKERS: Foe, Tuyuca
	Declarative only	Abkhaz, Jaqaru
	Interrogative > declarative	——
	Interrogative only	——

Lalo Yi, a Tibeto-Burman language spoken in Dali City, Yunnan Province, China, belong to the asymmetrical pattern, namely, the evidentiality markers are not equally available in both declarative and interrogative (see the table below).

Table 2 evidential markers with respect to declarative and interrogative in Lalo Yi

evidential markers	Declarative	interrogative
egophoric	∅	∅
direct (visual/non-visual sensory)	mu^{55}	u^{55}
inferential	$gɯ^{31}$	——
assumed	$ʂa^{55}$	$ʂa^{55}$
hearsay	$bi^{33}\ a^{31}mu^{31}$	$bi^{31}a^{31}u^{31}$

(1) a. $nɯ^{55}$ dza^{55} $dza^{31}pɛ^{55}$ $lɛ^{31}$ ∅?
2sg food eat ASP Q
'Have you eaten?'

b. $a^{55}ko^{31}$ dza^{55} $dza^{31}pɛ^{55}$ u^{55} $lɛ^{31}$?
Ago food eat ASP DIR Q
'Has Ago eaten？' (speaker assumes addressee have direct evidence)

c. $a^{55}ko^{31}$ dza^{55} dza^{31} $pɛ^{55}$ $ʂa^{55}$?
Ago food eat ASP ASSU/Q
'Has Ago eaten？' (speaker makes a guess)

d. $a^{55}ko^{31}$ di^{31} dza^{55} dza^{31} $pɛ^{55}$ u^{55} $bi^{33}a^{31}$ u^{31} $lɛ^{31}$?
Ago indirect speech marker food eat ASP DIR HEARSAY Q
'Did you hear that Ago had meal?'

In Lalo Yi, egophoric marker ∅ must occur in addressee subject interrogative sentences (see (1a)) and evidential markers $ʂa^{55}$（assumed marker）occur in the same morphological slot as interrogative marker(1c). Among evidential markers that typically take speaker perspective in declarative clauses. In many languages the speaker perspective of an evidential in a declarative changes to addressee perspective in an interrogative (e.g., Garrett 2001, Speas & Tenny 2003,

LaPolla 2003). San Roque et al（2017:134）make cross-linguistic hypothesis concerning relationship between evidential type and perspective in interrogatives.

<----------- speaker perspective unlikely

more direct evidence <----------> less direct evidence

addressee perspective unlikely ----------->

The assumed evidential marker shows speaker perspective in interrogatives, while egophoric and direct(visual/non-visual) evidential markers shift to reflect the addressee's information source in Lalo Yi. Lalo Yi basically conforms to the above hypothesis.

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Analysis of the dialect distribution and features of “Moon” in Blang language

Abstract: According to the corpus of 36 points in Blang language, the article uses the theoretical methods of geographical linguistics to analyze the source and word formation of the word “moon” in various places. It is pointed out: 1. The development and evolution path of the word "moon" in Blang may have two paths. 2. From the perspective of the motivation of word-making, “Moon” in Blang is based on the characteristics of the full moon, the crescent feature of the first moon, the cold color of the moon, and the brightness of the moon. From the perspective of the sources of its morphemes, there are original ones in Brown language itself, the ones borrowed from Dai language, and the ones from Chinese language, from which structures like “Blang+Blang, “Dai+Chinese”, “Dai+Dai”, and “Chinese+Chinese” are formed. From the perspective of the means of word-formation, there are voice overlap and semantic overlap.

Key words: Blang language; moon; dialect distribution; features

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Laryngeal Contrast and Tonal Split in Rongjiawan Xiang Chinese

Some dialects of the border region encompassing Hunan, Hubei, and Jiangxi provinces exhibit a unique phonetic phenomenon known as "Ci-qing voicing." Traditional impressionistic research has categorized this occurrence into two distinct types (Wang, 2010): the first is characterized by the pronunciation of unaspirated voiced obstruents, while the second manifests as aspirated voiced obstruents. Nevertheless, the term "voiced" lacks a precise definition, leading to variation in researchers' comprehension. Consequently, the phonemic transcriptions representing the same location often diverge, rendering the phonetic characteristics of this area exceptionally intricate and perplexing. Contemporary phonetic science has introduced various experimental parameters to demarcate the "voiceless and voiced" qualities of plosive sounds. Utilizing experimental evidence, this study aims to evaluate the validity of existing phoneme transcriptions and proceeds to explore the underlying mechanisms and potential trajectories of the "Ci-qing voicing" phenomenon's evolution.

Based on the fieldwork and phonetic experimentation, this study has proposed several pivotal insights. Primarily, it has identified a unique "Ciqing voicing" phenomenon within Yueyang's Rongjiawan dialect. This presents a contrast between Ciqing and Quanzhuo articulations—a rarity among Chinese dialects. Through meticulous measures of Voice Onset Time (VOT), After Closure Time (ACT), Voiced Closure (VDC), Voiceless Closure (VLC), as well as spectral parameters like H1-H2, Strength of Excitation (SoE), and Cepstral Peak Prominence (CPP), distinct variances have become apparent across the Quanqing, Ciqing, and Quanzhuo categories within the Rongjiawan vernacular, forging a unique tripartite phonetic distinction. We consequently characterize Quanqing as unaspirated voiceless plosives with a modal voice, define Ciqing as slightly aspirated voiceless plosives with a breathy voice, and describe Quanzhuo as unaspirated voiceless plosives with a slack voice.

Contrary to Wang Lining's (2010) perspective, we propose that the voicing evolution in Ciqing predates tone separation, unfolding through the following developmental stages: Initially, influenced by the Gan phonological system, Ciqing, originally characterized by aspirated unvoiced plosives, merged with Quanzhuo, known for its unaspirated voiced plosives. This merger resulted in a breathier articulation for Ciqing, though the tones remained identical to those of Quanqing. Subsequently, the increased breathiness in Ciqing syllables accentuated the tonal onset variation from Quanqing. In the final stage, the disparity in breathiness between Ciqing and Quanzhuo became more pronounced, leading to a distinct tonal differentiation for Ciqing from Quanqing.

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Directional Prefixes of Verbs in the Cheyi Language

Abstract

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This paper aims to explore the directional prefix of verbs in the Cheyi language, which is an endangered minority language spoken in Ganzi Tibetan Autonomous Prefecture, Sichuan, China. By examining 381 verbs and 50 sentences collected by myself as primary data of the Cheyi language, this paper not only provides a detailed description of the directional prefix system and its usage in Cheyi verbs for the first time but also investigates the grammatical functions of these directional prefixes. The study reveals that the directional prefixes in Cheyi have developed functions related to aspect marking and mood marking. Finally, I compare the directional prefixes and their grammatical functions in Cheyi with some Qiang-rGyalrongic languages within the Tibetan-Burman language family from the perspectives of linguistic typology and geolinguistics. The goal is to contribute new linguistic materials for reconstructing the proto-forms of directional prefixes in the Qiang-rGyalrongic languages.

Keywords:
The Cheyi language, Directional Prefixes, Grammatical Functions, Reconstructing

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On the Consequence-denoting Adjectives for Food in Taiwan Mandarin

Key words: emergent lexical semantics, meaning and discourse, adjective, consequence-denoting

Introduction: Adjectives refer to words that describe the qualities, quantities, or states of being of nouns. However, in Taiwan Mandarin, some adjectives have no direct descriptive connection to the noun they modify. For example, *fèi* 'fat' in *huāsheng fēicháng fèi* 'The peanuts are very fat' denotes the possible consequence on humans after consuming peanuts instead of indicating the nature of peanuts. Therefore, the semantic meaning with consequence-denoting function of *fèi* has emerged.

As argued by Tao (2003), semantic meaning of lexical items may emerge, be negotiated, and be acquired through language use. Despite this premise, possible processes as to how semantic meanings emerge are still understudied. Hence, this study investigates the consequence-denoting adjectives for food, which are relatively new but widely used, in hope of **(1) establishing a model to present the process how a consequence is transformed into an adjective to describe the causer and (2) analyzing whether there is an evolution within the process. That is, the interactive relationship within the cause-effect relation has changed from a necessity to an option or even to non-necessity.**

Data sources: Since lexical semantics is an ever-evolving process, as argued by Tao (2003), in order to explore the process, the data used in this study are from two kinds of sources -- Sinica Corpus and social media platforms. Through comparing the set of data from the former, in which the texts were written from 1981 to 2007, with the one from the latter, giving us texts from 2007 to 2023, **the gradually developed process for consequence-denoting adjectives is observed.**

Results: In *shuìdài wēnnuǎn yòu shūshì* 'The sleeping bag is warm and comfortable', retrieved in Sinica Corpus, the function of the sleeping bag is for humans to use, and the purpose of the function is to make humans warm. From the humans' aspect, the action humans do to the sleeping bag is to use it, and the effect on humans after using the sleeping bag is to become warm. The function of the sleeping bag and the action humans do to the sleeping bag overlap each other and so do the purpose of the function of the sleeping bag and the effect on humans.

By contrast, in *huāsheng fēicháng fèi*, retrieved on YouTube, the purpose of the

function of peanuts and the effect on humans do not overlap each other, as shown in Figure 1.

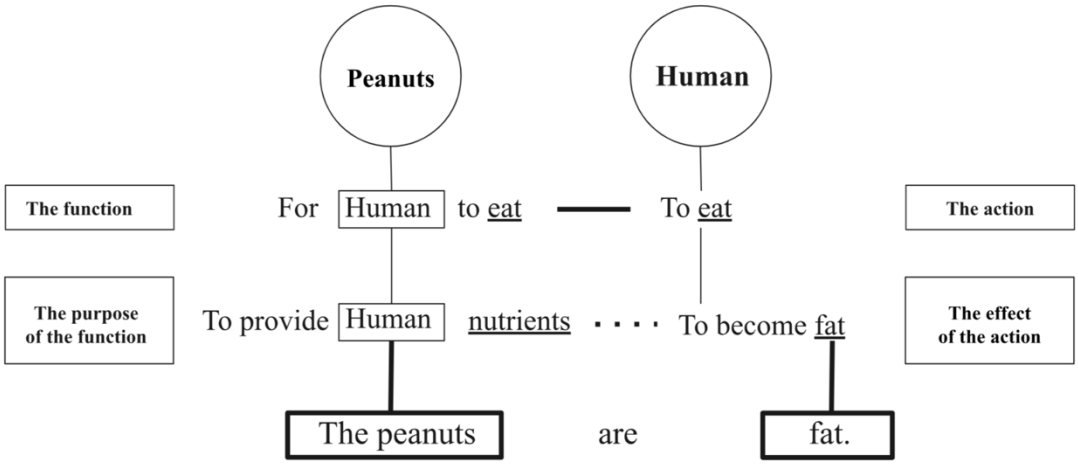

Figure 1. The cause-effect relation on consequence-denoting adjective for food

Namely, **the interactive relationship between "the function of a noun for humans" and "the action humans do to the noun" is necessary to trigger the consequence-denoting meaning** since it can be found in both *wēnnuǎ* and *féi* cases. Conversely, **the interactive relationship between the "purpose of the function of a noun" and "the effect on humans" within the cause-effect relation has changed from a necessity to an option** without affecting the formation of an understandable consequence-denoting adjective, such as *zuì'è* 'guilty' in *xiāoyè hǎo zuì'è* 'Midnight snacks are so guilty'.

Conclusion: When an adjective under the cause-effect relation is used to modify the causer, the meaning of "making the causee ADJECTIVE" will emerge. Additionally, **the interactive relationships within cause-effect relation may play less and less important role in the process where the consequence-denoting meaning emerges since speakers are familiar with the cause-effect relation and thus apply it more and more freely.** Those findings may give us a model to explore newer but similar kinds of adjectives, such as *gān* 'liver' *in zuì gān yóuxì* 'The most liver game'. The word *gān* denotes the organ the consequence may occur on instead of pointing out the consequence itself.

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Eastern and Western Minyag: Language Contact and Patterns of Syncretism among Noun Phrase Markers

This study offers a comparative analysis of noun phrase marking in Eastern Minyag (emq) and Western Minyag (wmg), two closely related endangered Tibeto-Burman languages of southwest Sichuan. Western Minyag is a language of Ganzi Tibetan Autonomous Prefecture spoken by roughly 10,000 individuals. Eastern Minyag is spoken by a historically smaller population today numbering perhaps no more than 1,000 in Shimian County and far eastern Jiulong County, Ganzi Tibetan Autonomous Prefecture. Until recently the two Minyags were considered dialectical variants and subsumed under a single ISO-code (mvm). Though the languages share many grammatical features and a great deal of their lexicons, they are mutually unintelligible. The names of the languages are geographically motivated, reflecting the location of each speaking area in relation to the shared cultural landmark of Gongga Mountain.

The Minyags are of great interest for the fact that their speaker populations seem to have separated intentionally and to have maintained only tenuous contact since their separation, with many speakers of the larger Western Minyag unaware of the existence of Eastern Minyag. There are noticeable cultural and religious differences between the populations as well. The Eastern Minyag speakers continue to practice sacrificial Bön, while almost the entire Western Minyag area adheres to mainstream Tibetan Buddhist. Most saliently, the two languages are in very different contact situations. Western Minyag has long been in extensive contact with Kham varieties of Tibetan, while Eastern Minyag has had close contact with Nuosu Yi, Ersu, and Sichuan Mandarin, and little to no recent contact with Tibetic languages. The apparent lack of continued cross-pollination between the languages of the speaker populations, their different cultural and religious orientations, and their unique situations of language contact make the Minyags an excellent testing ground for examining contact settings as drivers of change in genetically related languages.

Towards this end, this work considers the cognate but grammatically divergent noun phrase marking paradigms of Western and Eastern Minyag in light of the different morphosyntactic profiles of their contact languages. Particular attention is paid to the influence of Kham Tibetan on the distribution and function of noun phrase markers in Western Minyag. The Minyags have cognate sets of agentive, genitive, and dative markers. In general, the syncretic particulars of the Western Minyag markers align with the syncretic particulars of the equivalent Kham Tibetan markers. As an example, both languages use the same form for agentive and instrumental marking. However, unlike its counterpart in Western Minyag, the agentive marker in Eastern Minyag is also an ablative marker and a marker of reported speech. Likewise, the Western Minyag genitive has a narrower range of functions than its Eastern Minyag cognate. The findings contribute data to the study of syncreticism and grammaticalization attested for noun phrase markers. As is common among languages of the family, Minyag noun phrase markers are syncretic morphemes which serve multiple grammatical functions (Zhang 2022; LaPolla 1992).

Keywords: language contact; syncretism; genitive; ergative

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First Person Plural Pronouns

in Proto-Trans-Himalayan/Sino-Tibetan

The singular pronouns *ŋa ‘1SG’ and *naŋ ‘2SG’ are uncontroversially reconstructed to the common ancestor of all the Sinitic and Tibeto-Burman languages. In only a minority of low-level clades do we see any forms unrelated to these.

Plural pronominal reference, in contrast, shows great variation across the family. DeLancey (2019) reconstructs syncretic person-number forms *ka ‘1st plural exclusive’, *i ‘1st plural inclusive’, and *ni < *na-i ‘2nd person plural’ for the proto-language. One or more of these are preserved in various modern languages, but the general tendency across the family has been to replace syncretic forms with compositional pronouns with person and number indicated by separate morphemes.

This talk documents three other 1PL forms with a distribution that points to Proto-Trans-Himalayan provenance:

*ŋi, e.g. Phong (Northern Naga) ŋi, Sherpa (Bodic) ŋi, Kaike-Gurung-Thakali (Tamangic) ŋi, Chepang-Bhujel *ŋi, Raji-Raute *ŋa-i

*niŋ, e.g. Cak (Jinghpaw-Asakian) niŋ, Atong (Bodo-Garo) niŋ, Taraon (Idu-Tawrã) niŋ, Darma (West Himalayan) niŋ

*tsi(ŋ), e.g. Proto-Bodo-Garo *ciŋ, Tutsa (Northern Naga) siŋ, and compositional forms such as Khatso (Ngwi) ŋa33-tshɤ33 and Guiqiong (Qiangic) ŋə-tsɛi

The distribution of these crosses genealogical lines in ways that suggest that all three were present in the proto-language along with *i and *ka. In languages with a clusivity distinction, reflexes of *i are always inclusive, reflexes of *ka and *ŋi are always exclusive; it is not clear whether *niŋ or *tsiŋ have any associated clusivity value. *tsi and *tsiŋ were originally dual (perhaps *tsi ‘inclusive dual’ and *tsiŋ ‘exclusive dual’). *ŋi evidently < *ŋa-i, but we need to explain why the compositional form was necessary. *niŋ is attested in other functions (2nd person plural, hortative) which also suggest an association with inclusive function.

I hypothesize that originally plural exclusive *ka must have had a use as singular in the proto-language, as evidenced by its adoption in West Himalayan, South Central, and elsewhere as the basic singular pronoun. The resulting ambiguity in some contexts of *ka led to various solutions. One of these was to innovate a new exclusive form to replace *ka, and this is the origin of *ŋa-i. The use of *tsi(ŋ) and *niŋ may have had the same impetus, though this is less clear.

Keywords：Sino-Tibetan, Trans-Himalayan, pronouns

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Early metallurgic lexical borrowings between Sinitic and its southern neighbours

Early archaeological evidence for the clear use of metallurgy in Southeast Asia (SEA) dates to around the second century BC in the Ban Chiang culture in northeast Thailand (White & Hamilton, 2009). However, the transmission of the technology to SEA has been debated. With the traditional model of the SEA population receiving it from the Yellow River people being criticised as "Sino-centric", White and Hamilton (2009) proposed an alternative model of involving SEA in the larger Eurasian exchange network, through which metallurgic technology reached SEA. This article reviews the linguistic perspective of the transmission of metallurgy into SEA, focusing on early lexical borrowings related to metallurgy from Sinitic into SEA languages, namely Tai-Kadai and Austroasiatic, providing linguistic evidence of White and Hamilton's proposal of cultural interaction between SEA and central Eurasia.

This paper will focus on the lexemes for 'silver', 'iron', and 'copper/bronze', and their borrowing dates and directions between Sinitic and SEA languages. The lexical data was collected from previous literature (e.g., Schuessler, 2007; Matisoff, 2003), in addition to my dictionary search. Methodologically, the items were evaluated based on the phonetic match, semantic match, and cultural context. Alongside the linguistic evidence, this research incorporates archaeological findings in metallurgy in the relevant geographical regions, as the final step of considering the cultural context of the lexical borrowings.

The preliminary results suggest that the borrowing direction lexical items related to metallurgy are more likely to be from Sinitic languages to SEA languages. However, the results also suggest that the Sinitic-speaking populations were also on the recipient side of such metallurgic terms, which were from languages spoken in the Eurasia Steppes. This further implies that the metallurgic technology was transmitted across Eurasia widely, reaching languages in SEA through Sinitic speaker. Additionally, this paper is also in accordance with the archaeological finding that the northwestern regions of China played a significant role in the spread of such technology, and there might have been an exchange between the Gansu regions and the Yellow River plains regarding metallurgical materials.

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Expressives in Meiteilon (Manipuri)

Abstract

This paper seeks to study the forms and functions of Meiteilon expressives. According to Emeneau (1980), an expressive has semantic symbolism and very clear-cut morphosyntactic properties. The expressives in Meiteilon are found in full reduplicated forms, one syllable reduplicated forms, two syllable reduplicated forms, consonant replacement forms. These terms carry out different functions like animal mimesis, showing feelings, smell, weather phenomenon/environment condition, way of speaking, movement, spatial distribution, and negative sense. For instance, in the Meiteilon expressive, *hamu-hamu*, which means 'so-so', the root *hamu* as such do not carry any meaning. It is only when it is fully reduplicated that the actual meaning appears. Such an expressive is used while describing ones condition or state in general. Certain terms like *thitli-thitli*, describes the type of rain or slight drizzle, finds its equivalent term in Hindi as *'tip-tip barish'*. Similar to the term *hamu*, *thitli* as the root word does not carry any meaning. With consonant replacement, an expressive like *tharo-maro*, shows the rolling motion especially when a child is seen throwing tantrums. A section on echo- formation will also be discussed to differentiate between expressives and echo-words. This is essential because the root of expressive form does not carry any independent meaning, which is not the case with echo-word formation. For example, the Meiteilon echo-word, *marak-sarak*, the word *marak* means middle while *sarak* does not have any meaning, the meaning of this particular echo-word is ‘somewhere in the middle’.

Keywords: Meiteilon, expressives, form, function.

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Proto-Northern Yi and its people migration

Northern Yi, or known as Sichuan Yi, is a Tibeto-Burman language primarily spoken in Sichuan and northern Yunnan provinces, China. This study employs historical comparative method to establish strict phonological correspondences among seven dialects of Northern Yi, examine the dialectal classification, and reconstruct the Proto-Northern Yi language. It is found that Proto-Northern Yi features consonant clusters and voiceless nasals. Moreover, it is popular to see vowel raising in Northern Yi dialects to the east of Liangshan and northern Yunnan, and vowel fronting in dialects to the south of Liangshan. There are also transitional dialects, such as the ones spoken in Jinyang, displaying mixing features. Moreover, based on the phylogenetic data, this study also discusses the time of divergence of Northern Yi dialects and the historical population migrations. The most significant migration of Northern Yi speakers, which determines the current dialectal distribution and linguistic features, occurred during the late Tang and early Song dynasty, with north-eastern Yunnan as the dispersal center.

Keywords: proto-Yi, human migration, Tibeto-Burman, Loloish, historical linguistics

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The Discourse Functions of Tone Sandhi in Khatso

Many languages in the Sino-Tibetan family feature lexical tone. Most of these exhibit tone sandhi – i.e. the situation in which one tone changes due to influence from another. This is generally seen as a purely phonological process, and many of the patterns seem to be motivated by adjacency avoidance, such as the well-known Tone 3 Sandhi Pattern in Mandarin. It is widely believed that functional tone sandhi – such as the grammatical tone found in African and Central American languages – does not occur in the Sino-Tibetan family. However, the tone sandhi patterns in Khatso [$k^ha^{55}tso^{31}$ 喀桌语], an endangered Ngwi language spoken in Central Yunnan, cannot be explained by phonology alone. Instead, each occurs in a particular construction for a specific discourse purpose. This talk will explore two such patterns: the morphological use of sandhi in imperatives and the pragmatic use of sandhi for contrast.

The canonical way to produce a command or request in Khatso is to place the imperative particle $jɛ^{24}$ after a declarative clause to alter its function, and this is a highly productive process. However, it is also possible to omit the particle and change the tone of the proceeding syllable, typically a verb or aspect marker, to Tone 24 instead. This is not a fully productive process, nor is it obligatory. But it does routinely happen in a handful of constructions that are frequent in discourse, with the result that it is possible to formulate an imperative with tone sandhi alone.

The typical way to compare and contrast a new utterance with an existing proposition is to place the clausal focus marker la^{35} between the verb and a semantically relevant phrase-final particle. Often it serves to highlight a contrast, but it may also add new detail to a situation, such as the reason for a previous event or an effect it brought about. However, the same focal sense can be created by omitting la^{35} and changing an adjacent syllable to Tone 35 instead. Like the imperative pattern, this process is neither fully productive nor obligatory. Nonetheless, in Khatso it is possible to convey contrastive focus with tone sandhi alone.

It should be noted that these patterns are not the result of tone fusion, which also occurs in the language. In Khatso, tone fusion merges the starting point of one tone with the endpoint of the tone on the following omitted morpheme, usually a highly predictable grammatical particle, creating a long and salient contour. For example, fusing Tone 33 and Tone 35 will result in a combined contour of 335. In the two patterns just described, the Tones 24 and 35 completely replace the original lexical tone of the host syllable, making both clear cases of tone sandhi.

Functional sandhi patterns may not be unique to Khatso in the Sino-Tibetan family. Since these patterns are not purely phonological, or obligatory, they do not appear in routine elicitation. Instead, they can only be found by tracking tone behavior in natural discourse. It is therefore possible that similar patterns in related languages may have been so far overlooked. By expanding our expectations of what tone sandhi may look like, and also expanding our research methods, we may come to a deeper understanding of tone sandhi and its role in Sino-Tibetan languages.

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Breathy vowels in Toto

Toto (ISO 639-3: txo) is a Tibeto-Burman language spoken by about 1600 people in the village of Totopara in the Indian state of West Bengal, on the border with Bhutan. Toto is grouped with Dhimal and Lhokpu into a Dhimalish subgroup, which is either subsumed under Kiranti or forms a separate subgroup within Tibeto-Burman. Toto speakers are in contact with Nepali speakers, about 2000 of which live in the same village. Nepali and Dhimal have breathy consonants /b̤, d̤, g̈,…/. Lhokpu is not described with breathy sounds. Toto was described in earlier studies as having breathy consonants. This study presents phonological evidence for a breathy vowel analysis instead of breathy consonants.

The first piece of evidence comes from the distribution of breathy vowels. Figure 1 shows the vowel sounds to Toto, with plain on the left and breathy on the right. It can be seen that only front vowels can be breathy, which is not an expected restriction in languages with breathy consonants; e.g., Nepali.

i	y	u
e	ø	o
æ		ɑ

i̤	y̤
e̤	ø̤
æ̤	

Figure 1. Plain and breathy vowels of Toto

Second, breathy vowels can occur without an initial consonant, as in (1).

(1) plain/breathy contrast without initial consonant

/øwɑ/	/ø̤wɑ/
to vomit	to beat a person in anger

On the phonological side, the paper will present the complete set of phonological environments in which breathy vowels occur. On the phonetic side, the formant and spectral properties of plain and breathy vowels will also be presented.

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Non-final Clause Marker in Jinuo

Abstract

There are several strategies to combine clauses in Jinuo such as coordinating conjunctions, subordinating conjunctions, non-final clause marker. The non-final clause marker $a^{44}$is multifunctional and it related to nominalizer, genitive,relative clause and other particle. Comparing with Lahu *ve*, a^{44} and *ve* share same functions, the distinct difference is a^{44}can be applied in clause chaining. Tracing the source of non-final clause maker a^{44}, there are two possibilities: nominalization and copula.

Keyword: Jinuo, non-final clause marker, clause chaining.

Introduction

Buyuan Jinuo(Jinuo) is a language spoken in the southwest of China, which belongs to Lolo-Burmese family of the Tibeto-Burman branch of Sino-Tibetan. Basically, its word order is SOV. How does Jinuo combine clauses? There are several strategies such as coordinating conjunctions, subordinating conjunctions, non-final clause marker. For the most part, the combination of clauses in Buyuan Jinuo depends on semantic the relationship between clauses, the conjunctions and non-final clause maker are not so common. Jinuo is an head-final, suffixing language, and its verbs lack morphological changes, so there is no switch reference in Jinuo, and the non-final clause marker in Jinuo is not obligatory.

The main purpose of this paper is to give a simple descriptive of the grammatical properties of the clause chain in Jinuo, especially the non-final clause marker a^{44}, and track down the origin of the a^{44}. We will try to figure out coordination and subordination structures in Jinuo. Section 1 provides the overview of clause chaining in Jinuo. Section 2 reviews clause chaining in Tibeto-Burman. Section 3 talks about the other functions of a^{44}. Section 4 discusses clause combining in Jinuo, mainly introducing the combination of clause in coordination structure and subordination structure. Section 5 compares Jinuo a^{44} with Lahu *ve* ,and tries to find the similarities and differences between them. Section 6 traces the non-final clause marker in the Lolo-Burmese branch and tries to explore the origin of the non-final clause marker a^{44}.The data in this paper comes from natural discourse and published texts.

Section 1: Clause chaining in Jinuo

1.1 clause chaining

Clause chaining is an important way to combine clauses, which can be found in many languages. Many scholars have defined it from different angles. Robert A. Dooley (2010) focused on the extensive use of the clause, and proposed that clause chaining is characterized by the possibility of long sequences of foreground clauses with operator dependence, typically within the sentence. Carol Genetti (2011) thought that chaining architecture creates sequential strings of clauses, which occupy the same level of syntactic structure. Jeff Good (2015) put more focus on the syntactic structure of clause chaining, and indicated that clause chaining can be understood as linking together clauses which have a narrative relationship into a syntactic structure consisting of any number of non-finite clauses embedded in a finite clause. T. Givón (2018) noticed that clause

chaining is more striking in spoken language and pointed out that chained-conjoined and concatenated-clauses are the most common clause-types in natural language, a statistical predominance that is even more striking in spoken language and non-academic writing.

1.2 The property of Clause chaining in Jinuo.

How do clauses combine in Jinuo? There are several strategies, and clause chaining is one of them. Once several verbs appear in one sentence, there can be several relationship between these verbs, such as sequential relationship, modification relationship, coordination relationship and so on. Consider the following example:

(1) *tʂaŋ^{44}san^{44}ʃʅ^{44} a^{44}zɔ^{44} a^{44} tɯ^{44} a^{44} li^{44} a^{44} sɛ^{44} tsɔ^{44} pi^{44} tsa^{44} tʃhɔ^{54} a^{44}.*

Zhangsan DEM bird PRT hit NF go NF kill eat DISP want FUL PRT

Zhangsan wants to go to smash the bird and kill it for eating.

There are several verbs in sentence (1), *a^{44}* occurring after verb *tɯ^{44}* and verb *li^{44}* conveys coherent relationship between the two verbs, meaning one action occurs after another action. Verb li^{44} happens first and then verb *tɯ^{44}* happens. Verb *sɛ^{44}* and verb *tsɔ^{44}* convey the purpose relationship between the two verbs. There are no inflection change or particle around the two verbs. *a^{44}* in the middle of the sentence plays a coherence and link role in the sentence, and in (1), these verbs share one subject. As we can see from the example, the non-final clause ends with the particle *a^{44}*, not a suffix as in other TB languages (section 2). The finite verb in the final clause undertakes the task that shows the mood, tense,and aspect. In this sentence, *tʃhɔ^{54}* is after verb *tsa^{44}* and addresses the mood and not realized. According to the presentation of particle *a^{44}*, it can be predicted that *a^{44}* is developing connection function which is similar with converb in clause chaining, but converb is a distinct morphological form of the verb, otherwise Jinuo is a language which is less morphological change, so we can name it as a non-final clause particle (the abbreviation is NF).

(2) *xɤ^{44}tʂhoŋ^{31} ji^{44}mjɛn^{54} tʂɤ^{44} a^{44} ji^{44}miɛn^{54} thiau^{54} a^{44}, nɤŋ^{44}ka^{54} moŋ^{54} le^{44} a^{44}.*

They SIM sing- NF SIM jump-NF play-DUR happy very PRT

They sang and danced, and they were so happy.

In(2), the first two *a^{44}* coming after the two verbs convey that the action is happening simultaneously, though the simultaneous action is also expressed by the conjunction *ji^{44}mjɛn^{54}* which also appears after the verb *tʂɤ^{44}* and *thiau^{54}* which conveys simultaneous actions. The durative marker is after the verb *nɤŋ^{44}* in the final clause. In another words, the complex form of the verb appears at the final clause, so the verb has no inflection but connects with the particle.

One coherent sentence can be divided into two or more clauses, excluding the final clause, and the rest is non-final clause. *a^{44}* existing after the first clause is also common in Jinuo, example(3) illustrates the non-final clause function of a^{44}.

(3) *a^{33}xu^{44} a^{33}ji^{44} tɤ^{44} a^{44}, a^{33}nu^{44} pu^{44}pha^{54} tsɔ^{44} a^{44}.*

first soup drink NF then vegetable eat PRT

First drink soup, then eat vegetable.

Example (3) shows us the whole sentence contains two clauses. The first clause ends with a^{44}, the second sentence begins with an adverbial and finished with a^{44} , a final sentence particle. a^{44} appears at one sentence twice with different identity, in this sentence, two verbs share one subject, the first a^{44} can be recognized as non-final clause marker, although it also occurs after the verb $tɤ^{44}$. If there is no the a^{44}, the clause is not finished and not incompatible to grammar. At the beginning of the second clause, there is a conjunction $a^{33}nu^{44}$, which also demonstrates that the behaviors in second clause happen after the first clause. The last a^{44} is final sentence particle just look like what I will talk about at section 3.

Not like other Tibeto-Burman (TB) languages (section 2), Jinuo just has one non-final clause marker, and it occurs not as affixes but as phonologically independent words following the verb. We also found the non-final clause particle in Jinuo is not systematic. So where is the a^{44} from? I will explore the other functions of a^{44} in section 3, and I will discuss the particle in the Lolo-Burmese branch and try to figure out the origin of the a^{44} as the non-final clause particle in section 6.

Section 2 Clause chaining in Tibeto-Burman

Although the conception of clause chaining and switch reference is more striking in Papuan languages, research demonstrated that clause linkage by means of non-finite verb form is a common phenomenon in in the South Asia linguistic area. A non-finite verb in a clause chaining is always followed by suffix or other forms, and the verbal form marked by such a is called a converb. Bickel (1998) proposed the recognition of a separate category of 'Asian converb'. The Asian converb, seemingly unique to the languages of South, Central and East Asia, is distinguished from strictly modifying European converbs and strictly clause chaining Papuan medial verbs by demonstrating a semantic overlap between its modifying and chaining functions.

There is a growing literature on clause chaining in TB, I will present a few examples.

Dolakha Newar, which is spoken in Nepal, is a member of the Bodic branch of the Tibeto-Burman language family. The below example is the clause chaining in Dolakha Newar:

(4)*ām kehẽ=uri sut-pānt phi-ene tap phi-en*
that younger.sister=IND suit-pant wear-PART hat wear-PART
sara ga-en ām kehẽ tuŋ on-a.
horse climb-PART tha tyounger.sister FOC go-3sg.pst
'That younger sister put on a pants suit, put on a hat, climbed on a horse, and that younger sister went.' (Carol Genetti 2011)

This is a fairly typical sequence of chained clauses. In (3), the clauses set off by suffix '*ene/en*' are non-finite clause markers, and the final clause carries the finite morphology, while the other with the converb suffixes *en*. These verbs in the sentence share the same subject'that younger sister'.

Tshangla, which is spoken by people living in eastern Bhutan, India and Tibet, is a Tibeto-Burman language of the Bodic subgroup. This is the clause chaining in Tshangla.

(5)*Nyi gisa na gisa dak-nyi, bozong zong-nyi,*
PRT maybe PRT maybe say-NF cassava boil-NF
khoptang khop-nyi, laga-gi chhom-nyi, nyi sa nangka
skin peel-NF leaf-AGT wrap-NF PRT ground in
chhe-nyi, onya wang thur tsuk-nyi tha-wa.
plant-NF thus hole one put-NF leave-NOM.
'Thinking,"well, maybe" , boiling the kassava, peeling it, wrapping it with a leaf, planting it in the ground, they put it in a hole.' (Erik Andvik: 2003 452)

The suffix *-nyi* occurs after the non-final clause. The clause chains does not merely modify the main clause event, but participate on a par with the final clause in the main 'event-line' of the discourse.

Chang is a language which belongs to the Konyak group of the Bodo-Konyak-Jinghpaw branch of Tibeto-Burman, and the example is the typical narrative chaining in Chang.

(6)haw^{11}-$eɪ^{55}$-$puː^{55}$ $maŋ^{11}jɔk^{55}$-a^{11} pop^{55} kam^{55}-an^{11},
3SG-INS-GEN shirt-LOC pouch make-CVB
$puɭ^{55}hek^{11}$ $pən^{55}toʊ^{55}$ $khən^{55}eɪ^{11}$ $khəɪ^{55}$-an^{11} $ʧm^{55}$-an^{11},
fruit all there pluck-CVB put-CVB
$ʃɔŋ^{55}kəɪ^{11}$ $tuː^{11}kuː^{11}$ $kam^{55}an^{11}$, $khəɪ^{55}$-an^{11} $ʧm^{55}$-an^{11},
bag like.that make-CVB pluck-CVB put-CVB
$puɭ^{11}$-$ʃuɭ^{55}$-$kaʔ^{11}$ lot^{55}.
Tree-AUG-ABL descend.PST (Coupe 2007)
'He made a pouch in his shirt and put all the plucked fruit in there, in the manner of a bag, and he plucked [the fruit] in there and came down from the tree.'

This is a typical clause chaining, since the sequential converb *-an*^{11} is attached to non-final verbs in every clause. The final verb *lot*^{55} in the final clause is charged with the tense of the sentence.

From examples above, every scholar glossed the post-verbal in different ways, such as PART=participle, NF=nonfinal, CVB=converb. They all attached to the verb of non-finite clause, and the final verb undertook the tense, aspect and the mood function.

Jinuo is more of an analytical language, which has less changes in morphology just as the above we mentioned. Instead of using typical suffix in clause chaining, Jinuo uses particle after the non-final verb.

Section 3: *a*^{44} is a multifunctional particle

a^{44} is a high frequency word in natural discourse. Though *a*^{44} also is a prefix in noun and some adjective, I will not talk about it in this paper. The following statement will talk about various functions of *a*^{44} in Jinuo.

3.1 a^{44} *as a nominalizer*

Nominalization converts verb or adjective and pronoun into a noun, some languages apply nominalizer to a pronoun,verb and adjective to make a noun or noun phrase. For example(7):

(7)ʂʅ^{31} nɛ^{31} ŋo^{54} a^{44} phje33thu^{44}, xɤ^{44} nɛ^{31} nɤ^{44} a^{44}.
this COP1sg GEN clothes, that COP 2sg NMLZ＝PRT
This is my clothes,that is yours.

In (7),the second a^{44} is behind the second person pronoun, converting the pronoun into a noun phrase. The phrase is the object in the last clause. $nɤ^{44}$ and a^{44} can be merged into $nʌ^{44}$ phonetically at most of the time.

(8)xɤ^{44} nɛ^{31} tʂaŋ^{44}saŋ^{44} xo^{54} a^{44}.
that COP Zhangsan plant NMLZ=PRT
That is what Zhangsan plant.

In (8), the a^{44} follows the verb xo^{54}, indicating that the verb becomes the noun,the verb becomes into noun phrase which can be the predicative of the copula, the a^{44} is at the end of the sentence, so it also has the final sentence function that makes the sentence as a grammatical whole sentence. The above I talk about the other function of a^{44}, whether the clause chained function is related to this function, which one has close association with a^{44}. The problems should be solved in the following section.

3.2 a^{44} as a genitive marker

a^{44} always appears between a noun or pronoun and noun, indicating possession or close association. For example(9/10):

(9)ŋo^{54} a^{44}pu^{44} e^{31} sau^{44} a^{44} zɔ^{44}kɔ^{44} mo^{54}xo^{31} a^{44}mi^{44} tɕau^{44} a^{44}.
1sg father AGT other GEN children Han language teach PRT
my father teaches other's children chinese.

(10)ŋo^{44} e^{31} xɤ^{44}tshɔ^{44} a^{44} zɔ^{44}kɔ^{44} ŋ^{31} ji^{44}ʂʅ^{44} pi^{54} a^{44}.
1sg NOM 3sg GEN kids make smile DISP PRT
I made his kids smile.

In (9)and (10), the first a^{44} which occurs between the pronoun and noun is a genitive marker, and the second a^{44} is final sentence particle.

3.3 a^{44} in the relative clause

a^{44} can be used at a noun clause. In the clause, a^{44} occurs after a verb, and the verb may have different subject with other verbs in sentence. For example(11):

(11)ŋo^{54}a^{44}ŋjiŋ^{54} a^{33}pe^{35} kaŋ^{31}kɔ^{44} tʂhɤ^{35} a^{44} jɔ^{54} tʂhi^{44}nɔ^{31} nɔ^{44} (le^{44}) a^{44}.
1sg PL grandfather story tell PRT PFV listen wish very PRT
We are willing to listen to the story which the grandfather tells.

In example(11), the first a^{44} is behind verb *ʈʂhɤ*^{35}, and the perfective aspect (marker) *jɔ*^{54} occurs after the *a*^{44}. *kaŋ*^{31}*kɔ*^{44} 'story' is the object and *a*^{33}*pe*^{35} 'grandfather' is the subject, so these constituents compose a noun clause which is other verb's object. The second verb *ʈʂhi*^{44}*nɔ*^{31} follows the modal verbs *nɔ*^{44} which shows the modal of the verb. The last word *a*^{44} is a final sentence particle. This sentence is different from clause chaining, two reasons account for it. First, there is PFV marker after the first *a*^{44}. Second, the two verbs excluding modal verb share different subject and different object.

(12)*(a*^{33}*tɔ*^{44}*)* *a*^{44}*la*^{44} *ʧhi*^{44} *a*^{44} *ma*^{44} *sɯ*^{44} *a*^{44}.

Afterall what do PRT NEG know PRT
Don't know what they do finally?

In sentence (12), the first *a*^{44} in the middle of the sentence is after verb *ʧhi*^{44} , Verbs and nouns and *a*^{44} form a noun clause, the clause is the verb *sɯ*^{44}'s object. Usually, the two verbs in the sentence share different subjects and objects.

3.4 a^{44} *as a final sentence particle*

a^{44} as a particle, usually appears at the end of one sentence, we can call it a 'sentence final particle'. Example (13/14) illustrates the basic function of the *a*^{44}.

(13)*xɤ*^{54}*ʈʂoŋ*^{44} *(nɛ*^{33}*)* *a*^{44}*pɯ*^{44} *lɯ*^{54} *a*^{44}*?*

they TOP where come PRT
Where are they from?

(14)*ʃɤ*^{44} *tshɔ*^{54} *nɛ*^{33} *ŋjo*^{44} *a*^{44}*pu*^{44}*mɔ*^{44} *ʧhau*^{54}*ʂɤŋ*^{44} *ʧhau*^{54} *a*^{44}.

This bird TOP his farther mother filial obedience PRT
This bird is very filial his father and mother.

Examples(13/14)shows the syntactic function of *a*^{44} as a final sentence particle. In(13), it is used at the end of interrogative sentence, in (14), it appears at the end of the declarative sentence, and both of them can't be omitted. In sum, *a*^{44} as a final sentence particle always makes the interrogative and declarative relationships at the end of sentence.

Section 4: Clause combining in Jinuo

4.1 The combination of clause in coordination structure

Coordination structure can be found in Jinuo in the following examples. there are several ways to conjoin the equivalent. Conjunction can be applied to conjoin the two clauses which are connected. For example:

(15)*a*^{44}*xu*^{44} *a*^{44}*ji*^{44} *tɤ*^{44} *a*^{44}, *a*^{44}*nu*^{44} *pu*^{44}*pha*^{54} *tsɔ*^{44} *a*^{44}.

Conj=first soup drink NF Conj=then vegetable eat PRT

First drink the soup,then eat some vegetables.

The conjunction in the above sentence just confirms the sequential relationship of two clauses. The non-final clause particle a^{44} also can be applied in conjoining coordination clause. the conjunction $a^{44}nu^{44}$ in this sentence is optional, not obligatory.

(16)$a^{33}tha^{44}\ li^{44}tshɯ^{44}\ phi^{44}\ \ a^{44},\ \ a^{44}u^{44}\ ŋɔ^{44}tshɯ^{44}\ phi^{44}\ a^{44}.$

up forty carry NF down fifty carry PRT

Back up forty miles, back down forty miles

Example (16) shows us verb phrase coordination. In the sentence, the subject is omitted, and the two clauses share one subject. They have similar structure, the first a^{44} follows the verb phi^{44}. It looks like the coordination marks, but actually, it is more reasonable that it can be a non-final clause particle. Generally, the front clause and the rear clause are set off by pause; meanwhile, the second a^{44} also looks like coordination marker and the final sentence particle. The parallel relationship is displayed by the same structure of the preceding and subsequent clauses, the two clauses are symmetrical.

4.2 The combination of clause in subordination structure

Jinuo employs postposition conjunction to conjoin subordinate clause, so there no morphological changes on verb. For example, in (17):

(17)$ŋo^{44}\ \ e^{31}\ \ zu^{44}\ ja^{54}\ a^{44}noŋ^{44},\ xɤ^{31}ʂhuŋ^{31}\ tje^{35}\ a^{44}la^{44}\ sa^{44}?$

1sg NOM go PFV CONJ 3pl again what talk

After I went, what did they talk about?

In (17),the postposition conjunction which indicates the temporal relationship, is located after the first clause, and usually, there is a pause between the two clauses.

(18)$mi^{44}tha^{54}\ xo^{31}\ kɔ^{44}nɛ^{44}(=jɔ^{54}),\ xo^{54}\ jɯ^{31}\ ja^{54}.$

rain rain although field go PFV

Although it rained,(he)went to field.

In (18), $kɔ^{44}nɛ^{44}(=jɔ^{54})$ occurs after the first clause, indicating the adversative relationship.

(19)$ŋo^{54}\ nɛ^{33}\ ma^{44}\ \ jɯ^{31}\ \ nɔ^{44}\ \ a^{44}\ \ jɔ^{54},\ \ \ ŋ^{31}kɔ^{44}nɛ^{44}\ taŋ^{44}mjɛn^{54}\ xɤŋ^{54}\ a^{44}nɛ^{33}$

1sg also NEG GO want NF although but in person say again

$ma^{44}\ \ faŋ^{44}pjɛn^{54}\ \ a^{44}.$

NEG Convenient PRT

Although I don′ t want go, it is not convenient to say in person.

In (19) the non-final marker a^{44} appears after the first clause and before the conjunction $jɔ^{54}$.

(20)$xɤ^{44}tshɔ^{44}$ ma^{44} $jɯ^{44}$ $a^{44}nɛ^{33}$ $lɛ^{54}$ a^{44}, $jɔ^{54}$ $nɤ^{44}$ ma^{44} li^{44}

3sg NEG go also well NF but 2sg NEG go

$(a^{44}nɛ^{33})$ ma^{44} $lɛ^{54}$ a^{44}.

also NEG well PRT

It is ok for him not going, but it is not ok for you not going.

In (20), comparing to example (19), the non-final marker a^{44} occurs after the first clause, the conjunction $jɔ^{54}$ appears before the second clause. Examples(19-20) show us that a^{44} can be existed in the complex sentence which has subordinated relationship.

(21)$(xɤ^{44}kʌ^{44})$ $mi^{44}tha^{54}$ xo^{31} $(sɯ^{44}la^{44}nɛ^{44})$, $a^{44}ŋjiŋ^{54}$ ma^{44} $jɯ^{33}$ na^{44}.

CONJ rain rain-verb CONJ 1PL NEG go PROS

If it rains, we will not go.

In (21), there are a preposition conjunction $xɤ^{44}kʌ^{44}$ and a postposition conjunction that occur at the head and the end of the first clause. These conjunction indicate the hypothetical or conditional relationship between the two clauses. Sometimes it is also reasonable if there is no conjunction. We just can deduce its logical meaning by the semantic meaning between the two clauses.

(22)$ŋo^{44}$ e^{31} $xɤ^{44}$ $tsɔ^{44}$ mi^{55}, $nɤ^{31}$ $sɯ^{33}tɤ^{44}$ $thʌ^{44}$ sa^{44}.

1sg NOM food eat CONJ 2sg speech NEG talk

When I eat, you don't talk.

In (22), postposition conjunction occurs at the first clause, meaning mi^{55} has a similar meaning to an English clause headed by when. This means the actions happen almost at the same time in the front clause and the back clause, and the first one modifies the last clause.

In sum, various postposition conjunctions play an important role in combining clause in subordination structure in Jinuo. Different relationship between the two clauses employs different conjunction. Sometimes, the conjunction can be omitted in the complex sentence, so there are no linkage between two clause. The non-final marker a^{44} sometimes occurs at the subordination structure.

Section 5: Jinuo a^{44} and Lahu *ve*

According to the function of a^{44} in Jinuo, it is very similar to the particle *ve* in Lahu. Matisoff(1972) noted that the particle *ve* in Lahu serves not only as the marker of genitive constructions and relative clauses, but also as a clause nominalizer. Jinuo a^{44} and Lahu *ve* have a very similar range of functions.

5.1 *ve* and a^{44} as a genitive markers

(23)*ŋà ve □ nɔ̀ ve □ a-kɛ̀ yɨ́ jâ*

'Mine is much longer than yours.'(Matisoff 1972 241:example11)

ŋà ve □ | nɔ̀ ve □ a-ké | yɨ̀ jâ
'Mine is much longer than yours.' *ve* occurs after the pronoun in the above example, indicating a possessive relationship. a^{44} in Jinuo also is a genitive marker like example(9-10), since they all occur after noun and pronoun, indicating the possession relationship in semantic.

5.2 ve and a^{44} as relative subordination markers

The two particles can be added to a larger sentence to modify the particular noun of the sentence.

(24)qhâ ˀ-šɛ=ma cɔ̂ tā ve và ˀ= ó-qō mè jâ
'The pig's head the headman's wife boiled is yummy.'(241:example15)

[qhâ ˀ-šɛ=ma | cɔ̂ tā ve] và ˀ=ó-qō | mè jâ
'The pig's head the headman's wife boiled is yummy.' The above example shows us that *ve* occurs after the verb *tɑ* , and the nominalized VP structure modifies the noun 'head'. example (11-12) in Jinuo also shows us that a^{44} as a relative subordination marker can generally be used after a verb, making the VP nominalization. The nominalized VP usually can be identified as a noun phrase, which can modify a noun or be treated as a noun.

5.3 ve and a^{44} are both in final clauses

Ve, just like a^{44} in Jinuo, appears in the final clauses of Lahu sentences with enormous frequency.

(25)*yɔ̂ vên qhɔ mɔ̂ ca hɔ̂ qay ve*
'He went/goes/will go to town to sell some things.'(246:example34)

{yɔ̂ ¦ vên qhɔ ¦ mɔ̂ | ca hɔ̂ qay ve}
'He went/goes/will go to town to sell some things.' There are several kinds of final clause particles in Lahu, and *ve* is one of them. Matisoff thought that *ve* has nothing to do with tense. He gave a solution that there are two types of minor sentences-natural and derivative the latter one has been nominalized by *ve* in its final clause.
a^{44} in Jinuo also occurs in the final clause with very high frequency. We can review the examples(13-14) in Jinuo to see that a^{44} has no relationship with tense or aspect, and it can appear after an adverb, such as example(2), and it occurs after another particle too, such as example(1). Mostly it presents after the verb phrase.

5.4 ve and a^{44} clause can be followed by another particle

(26)*mû-cha cha ve qo i-mû mâ ga cî qay hé*
'If the sun is hot,(he) probably won't be able to go
on horseback.'("If it is a sun-being-hot....")(244:example 28c)

{*mû-cha | cha ve*}*qo* ¦ *i-mû | mâ ɡa cî qay hɛ́*
'If the sun is hot, (he) probably won't be able to go on horseback.' ("If it is a sun-being-hot . . .") In example(26), particle *qo* follows *ve* clause. Meanwhile a^{44} in Jinuo sometimes can be followed by another particle, such as in example (1) where follows the future marker. In subordination structure, a^{44} also can be found at the end of a first clause following a particle , example (24) shows us the fact that a^{44} can be followed by adversative marker. *ve* and a^{44} are very similar in this function.

5.5 Differences between Lahu ve and Jinuo a^{44}

Although the two particles in the two languages are very similar, when we compare them more closely, we realized that each language has its own personality. In the following part I will talk about the personality of the two particles.

5.5.1 *ve* in the final clause of compound sentences

In the compound sentence with subordination relationship, *ve* occurs in its final clause, and there is another particle following it. For example:

(27)*chɔ-qhɔ̂ qhâ^{ʔ}-šɛ thà^{ʔ} mɔ̀ qo phɔ e tù ve yò*

'If the thief sees the headman, he'll run away.'(251:example53)

{*chɔ-qhɔ̂ ¦ qhâ^{ʔ}-šɛ thà^{ʔ} |mɔ̀ qo ‖ phɔ e tù ve*}*yò*
'If the thief sees the headman, he'll run away.'

Ve occurs at the end of the compound sentences, and the *yo* follows *ve.* Martisoff regarded the nominalizing force of *ve* as extending back to the beginning of the sentence. However, a^{44} in Jinuo also appears in the compound sentence with subordination relationship, and it just occurs at the end of the first clause, the a^{44} at the end of the second clause is the final particle and it can't be followed by another particle like *ve* in the above example, we can see the example (19-20).

5.5.2 a^{44} can be as a non-final clause marker in clause chaining.

If there are several verbs in one sentence in Jinuo, and the non-final verb ends with the particle a^{44} , while the last verb in the final clause undertakes the task that shows the mood, tense,and aspect, so a^{44} is a non-final clause in Jinuo, just as section 1 mentioned. *ve* in Lahu does not have that function. a^{44} in Jinuo and ve in Lahu are nominalizer, but the biggest distinction is a^{44} also can be used in clause chaining as a non-final clause marker. Does the maker have relationship with the nominalizer? Nominalizer, relative clause marker, and genitive marker have the same form, which are the common phenomena in TB, but how does Jinuo a^{44} develop the clause combining function from the nominalizer? We will talk about this in the next section.

Section 6: The origin of the non-final clause marker in Central Yi (*?)

Coupe (2017) presented three types of converbal constructions common to the Tibeto-Burman languages of Northeast India, and discussed the relationship of converbs to nominalizations functioning as relative clauses. He tried to find the grammaticalization pathway nominalization converting to converb. Coupe thought that '*The reanalysis of converbal constructions from nominalizations functioning as post-head or headless relative clauses is a widely observed pattern*

in the Tibeto-Burman languages of Northeast India and represents an important grammaticalization pathway for the development of syntactic complexity'(Coupe 2017:228). '*The first stage in this process is the grammaticalization of nominalizing morphemes from generic nouns and class terms, most plausibly from compounding structures. The function of nominalization is then extended to marking various types of syntactic relationships in the grammar, and one of these is relativization*'(Coupe 2017:232). In other words, he considered that the origin of the coverb in TB comes from nominalization. DeLancey (2013,2010,2011) analyzed the preverbal agreement paradigms and the postverbal paradigm in Kuki-Chin branch of Tibeto-Burman, and he thought that the first preverbal agreement morphemes are, for the most part, simply the possessive proclitics or prefixes pressed into service as verb agreement. The second is the syntax of the sentence final particle in the Northern languages. The two characteristics of the innovative preverbal paradigm in the KC languages argue for its origin in a clausal nominalization. According to the final particle, DeLancey suggested that such final particle constructions in Tibeto-Burman usually originate in the copula or nominalizer in a clausal nominalization construction.

So we can trace the origin of a^{44} in Jinuo from two ways: one is copula, one is nominalizer. The copula in Jinuo is $nɛ^{31}/ŋ^{54}$, and it looks distinct from a^{44} now, but we can't get the conclusion that a^{44} is not from copula, because it is possible that copula in Jinuo had the same origin with non-final clause marker a^{44} historically. With the diachronic evolution of language, they just look distinct now. The nomializer in Jinuo, a^{44}, which has the same form as converb a^{44}. It is probably that most of the function of the a^{44} is derivatived form nominalizer. In sum, it is possible there are two origins about non-final clause marker a^{44}, it maybe come form the copula or nomializer.

In order to test our presumption, we include a table about main particles of four languages(dialects) of Central Yi.

Table 1

	Nominalizer	Final particle(high frequency	Relative clause marker	Genitive marker	Copular
Biyue Hani	kɯ^{33}	e^{33}.....	kɯ^{33}	kɯ^{33}	ŋe^{33}/ŋɯ^{33}
Bangduo Lahu	ve^{33}	ve^{33}.....	ve^{33}	ve^{33}	lɛ^{33}/ma^{53} xe̱^{53}
Lisu(Lushui and Fugong)	tɛ^{55}/du^{33}	ŋɑ^{33}.....	be^{33}/ɑ^{55}mɑ ^{44}/mɑ^{44}	ɑ55mɑ44	ŋɑ^{33}
Flowery Lisu	su□^{44}/du^{33}	ɑ□^{44}/o̱^{44}	(ɑ ^{55})m ɑ□ ^{44}	ɣɯ ^{21}	ŋɑ^{33}

On the one hand, the four languages belong to Central Yi, and the syntactic features between them are relatively close. The table1 shows us that it is a tendency that nominalizer, relative clause marker and genitive marker share the same or similar forms in most of Central Yi languages. But according to nominalizer, relative clause marker and genitive, every language has distinct phonetic forms. There is no evidence that they have the same origin, It is normal in many

languages. Yap, F. H., & Grunow‐Hårsta (2010) observed that the intimate relationship between nominalization and relativization, subordiantion, finite clause demonstrated how moninalization can be reanalyzed relativization,subordination,finite clause with massive cases. They also demonstrate that in some TB languages nominalization constructions expressing TAM are consistently non-embedded, which was first observed by Matisoff(1972) and many other scholars. Although Yap, F. H., & Grunow‐Hårsta observed the intimate relationship between nominalization and relativization, subordiantion, finite clause, and Coupe also considered that converbal constructions from nominalizations functioning as post-head or headless relative clauses is a widely observed pattern in the Tibeto-Burman languages. There is no strong evidence that nominalizaiton marker derives other functions. a^{44} is a high frequency particle and multifunctional in Jinuo, non-final clause marker a^{44} *have the same form with* nominalizer, it is probable that it is a tendency that non-final clause marker can be derived from the moninalization. However, we have no evidence non-final clause marker are related to copula, but this possibility is not ruled out. So we think it is an open question.

Abbreviations

AGT	agent	ABL	ablative case
ADV	adverbial (marker)	AUG	augmentative (marker)
CVB	converb	CONJ	conjunctive (marker)
COP	copula	DEM	demonstrative pronoun
DISP	disposal marker	DUR	durative aspect
FOC	focus	FUL	future tense
GEN	genitive (marker)	IND	individuating
INS	instrumental case	LOC	locative
NEG	negative	NF	non-final clause marker
NMLZ	nominalizer	NOM	nominative
PART	participle (converb)	PRT	particle
PFV	perfective aspect	PL	plural
PROS	prospective aspect	PST	past tense
SG	singular	SIM	simultaneous action
TOP	topic		

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A report on Stau ethnobotany fieldwork

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Abstract

Research on humanity's interaction with plants plays an important role in understanding human history. The names for plant species in Trans-Himalayan languages provide critical data for understanding the family's phylogeny, including migration patterns, language relatedness, and language contact (Sagart 2003; Chirkova et al. 2016; Bradley 2011, 2022; van Driem 2019). Furthermore, the rapid disappearance of ethnobotanical knowledge coincides with the extinction of plant species, and thus the documentation of such cultural knowledge (including plant usage) is of great urgency for both plant and human sciences.

This field report discusses research on Stau ethnobotanical nomenclature. Fieldwork for this study was conducted on August 3-4, 2023. Thirty-five ethnobotanical (including mycological) specimen terms were recorded from Stau speakers, along with information about each plant including their cultural, gastronomical, and ethnopharmacological significance. Of these plants, we collected thirty unique herbarium vouchers, which are in the process of being installed in a herbarium. We also collected three mycological specimens (purchased at a local market), but these later had to be discarded as they began to rot. Since the time of fieldwork, we have collected an additional twenty native Stau ethnobotanical specimen names, including ten agricultural specimen names. In addition to the native terms, we have collected a dozen plant names which are loanwords from Tibetan and Chinese. We have identified the scientific (Latin) terms for all of these specimens. Included in this study is a taxonomy of agricultural terms, including the parts of the crops, terms for planting, harvesting and preparation process, and the tool names that are used for agriculture and food processing.

This report also includes a preliminary analysis of Stau ethnobontanical terms from both synchronic and diachronic perspectives. One area this report delves into concerns the compositionality and colexification of ethnobotanical terms in Gyalrongic languages (List 2024). For example, in Table 1 we observe that while Japhug and Geshiza use the cognate Gyalrongic terms *si* and *sʰi*, respectively, to convey the concepts 'tree', 'wood' and 'firewood', Stau uses three words: *na* 'tree', *ɕõ* 'wood' (from Tibetan *nags* and *shing*, respectively), and *ɣməsi* 'firewood' (a unique compound innovation from *ɣmə* 'fire' and the Gyalrongic *si* 'tree, wood'). Bragbar, Khroskyabs, and Bragmda rTau also use a combination of word building strategies with loanwords, compounds, and derivational processes. Body part terms are also used in building compounds for ethnobotanical terms (e.g., Table 2, Stau *rkorkæ* 'root' from *rko* 'foot', and *tɕitɕæ* 'skin' for 'tree bark'), and these metaphorical extensions will also be analyzed. Using computer assisted language comparison by means of inline alignment with the EDICTOR tool (List 2017) and other methods, I will make some generalizations concerning why words like *si* are more productive word builders and how ethnobotanical word families have evolved in Gyalrongic phylogeny, making comparison more broadly with Trans-Himalayan phylogeny.

Table 1: Colexification of tree related concepts 1

	forest	tree	fruit tree	cypress	wood	firewood
Stau	*na*	*na*	*ɕõpʰu*	*zjo*	*ɕõ*	*ɣməsi*
Bragmda rTau	*na*	*na*			*ɕiŋ*	
Geshiza	*sʰənɔ*	*sʰi/sʰəpʰo*			*sʰi/sʰə*	*sʰi/sʰə*
Khroskyabs	*sæpʰô*	*sæpʰô*	*ɕâŋtʊŋ=ji sê*	*sjâɣ*	*sʰê*	
Japhug	*sɯŋgɯ*	*si*	*ɕoŋpʰu*		*si*	*si*
Bragbar	*ɕɐkʰiê/-khá*	*ɕê/ɕɐkphû/-ɕé*			*ɕê*	

Table 2: Colexification of tree related concepts 2

	branch	root	stump	bark
Stau	*qavla*	*rkorkæ*	*(r)ŋu(rtsu)*	*tɕitɕæ* 'skin'/*rkʰo* 'dry bark'
Bragmda rTau		*ɕiŋɹtsæ*		*ɕiŋɹpa*
Geshiza	*sʰə-var*	*sqʰa*		
Khroskyabs	*kʰarlá/jælgá*	*rtsâ*		*sæpʰôdʑə/rqʰû*
Japhug	*rtaʁ*	*qa/zrɤm*	*sɯrtsʰo/sɯrtsʰɯm*	*rqʰu*
Bragbar	*ɕɐ-jgiâk*	*spɐr̂*		

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The Reclassification of Tai Branch: An Observation through *r*-initials

The *r*-initials has always been the focus of research in Kam-Tai. Yuan (1963) first came up with the concept of *r*-initials which correspond to /ð, h, j, l, r, θ, ɬ/ in modern dialects. These initials, however, are all descendants of the initials /*pr-, *tr-, *tl-, *tʰr-, *dl-, *nl-/nr-, *xr/ reconstructed by Li (1954). Based on the reconstruction and classification of Proto-Tai (PT) by Li (1977), this paper collects the *r*-initials of 137 modern dialects of Tai, and reanalyses the correspondence of *r*-initials among all sub-branches. The conclusions are as follows:

(1) The merge of PT initials /*r, *xr, *tl, *thr/ reconstructed by Li (1977) (Pittayaporn 2009 *r, *kr, *k.t, *tr-) is a shared innovation of Northern Tai (henceforth NT), which can be taken as the sign of NT's diverging from PT. This merge has not happened in Central Tai (CT) and South-western Tai (SW).

(2) The PT initial /*tr/ (Pittayaporn 2009 *p.t-) has merged into /*pr/ (Pittayaporn 2009 *p.r-) in all SW, realised as /t/. However, these two initials are only merged in some dialects of CT, while contrast in others. In the dialects which the merge has completed like Qinzhou, Yongnan, Shangsi, Chongzuo, Ningming (which belong to Yongnan vernacular), Dejing, Yanguang, Nung Day (which belong to Dejing vernacular), these initials realise as /tʰ/. In Boa Yen, these initials are realised as /pʰj/. However, in Youjiang vernacular, these two initials still contrast with each other. In Lungming, /*tr/ correspondents to /tʰ/, /*pr/ correspondents to /pʰj/. In Lungchow, Pingxiang, Leiping, Daxin, /*tr/ correspondents to /h/, /*pr/ correspondents to /pʰj/. In Dai La (Yuanjiang), the word {cucumber}, which has /*pr/ initial, is realised as /h/, while /*pr/ should correspondent to /pʰj/. Thus, Dai La (Yuanjiang) should not be classified into SW.

(3) E (Rongshui) can be classified into NT because of the merge of /*r, *xr, *tl, *thr/. However, the /*nr/ of PT (e.g., {water}, {bird}, {dew}, {bamboo shoot}) in E (Rongshui), Saek, and Libo-Huanjiang vernaculars show a different sound change from other NT. E (Rongshui), Saek, and Libo-Huanjiang vernacular can be diverged from other NT.

(4) Liao & Tai (2019) suggests Yongnan vernacular should be classified into NT, not CT. The sound change of PT /*xr/ (Pittayaporn 2009 /*kr/) in Yongnan vernacular is same as the sound change in NT, i.e., /*xr > h/. While in CT, PT /*xr/ correspondents to /kʰ, kʰj (which takes /tɕʰj/ as an allophone)/. In Dai La (Yuanjiang), PT /*xr/ correspondents to /kʰ, tɕʰ(which takes /tsʰ/ as an allophone)/. This is another piece of evidence that Dai La (Yuanjiang) does not belong to SW but CT.

(5) Through the sound change of PT /*dl/ and the restrict correspondence of /l/ (<PT /*l/) initial in modern Tai dialects, the chain shift /r > l >j/ cannot be applied in Tai dialects.

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Polyfuctionality and special structure of Genitive in Classical Tibetan

There are two systems of genitive in classical Tibetan. The first case is -e. This genitive case exists only in Dunhuang Tibetan Documents and mainly indicates the possessive relationship. The second is gi, which has five variants of gyi, kyi, gi, vi and yi. From the records of early Tibetan inscriptions and Dunhuang documents, gi, gyi and vi appeared earlier than yi.

In classical Tibetan, the second genitive has multiple functions, that is, it can appear either after the nominal element or directly after the verbal element. When used as a case marker, it semantically represents attribution, agent, tool, manner, cause, source, and comparison. In the sentence, it combined with the predicate, indicates the aspects of the progressive and future. At the end of a clause, it acts as a converb affix to join two or more clauses. The genitive can also be used as an adverb affix, a complementizer, a relativizer and a modal particle. From the perspective of grammaticalization, the concepts presented by these functions are intrinsically related and have evolutionary relations with each other.

In classical Tibetan, the genitive can be omitted in the following three constructions. This article preliminarily believes that this usage reflects the existence of alienable and inalienable possession in Old Tibetan. Semantically, there are three main types of inalienable possession. When the ownership of body parts, the “master and servant” relationship, and the specific orientation are expressed, there is no need to add genitive case between the possessor and the possessed item. In addition, in classical Tibetan, the possession can be omitted and the “N-genitive -Ø”structure appears. This structure shares many features with Chinese possessive particle“的”.

Keywords: Genitive, Classical Tibetan, Polyfuctionality, inalienable possession

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Sino-Tibetan Ambiguous Conditionals

Keywords: temporal, implicative, hypothetical, counterfactual, conditional, ambiguity types
Summary: Conditional conjunctions might exhibit four different meanings: temporal (T), implicative (I), hypothetical (H) and counterfactual (C). Sino-Tibetan languages use between one and four conjunctions to encode and conflate these meanings. A genetically representative sample of 16 Sino-Tibetan languages distribute over the following attested ambiguity types as follows.

Type	Conjunctions	Division of Labor	Languages	Count
I	*One*	TIHC	Lisu, Gahri, Zaiwa, Apatani	4
II	*Two*	T / IHC	Rabha, Nuosu, Limbu, Eastern Kayah, Meithei, Lahu	6
III	*Two*	TH / IC	Daai Chin	1
IV	*Three*	T / I / HC	Ao Mongsen	1
V	*Three*	T / IH / C	Chinese, Qiang	2
VI	*Four*	T / I / H / C	Muosu	1
			Total:	**16**

Table 1: *Distribution of ambiguous conditionals*

Sino-Tibetan languages typically encode the temporal, implicative, hypothetical and counterfactual meanings by conjunctions rather than by elaborate mood categories or fake tense. The different types can be illustrated by the following languages (excerpt).

Type I

Lisu (Sino-Tibetan: Thailand) *(Hope 1974: 66-67)*

(1)

yí-phwɬ	xŭ-a	**nya**	ŋwa	nya	ámù	vwù-a
WH-price	right-DEC	**CONJ**	1.SG	TOP	horse	sell-DEC

(i) *Temporal*: 'When the price is right, I will sell my horse.'
(ii) *Implicative*: 'If the price is right, I will sell my horse.'
(iii) *Hypothetical*: 'If the price were right, I would sell my horse.'
(iv) *Counterfactual*: 'If the price had been right, I would have sold my horse.'

Type III

Daai Chin (Sino-Tibetan: Myanmar) *(So-Hartman 2008: 337-342)*

(2)

Kah	mghnu-mi	ah	ve=**üngta**,	kbe	boo:k=üng	buh	ei=ngü.
POSS.1.S	Wife	S.3.SG	be=**CONJ**	plate	white=INSTR	rice	eat=1.SG.M

(i) *Temporal*: 'When my wife was there, I ate from a white plate.'
(ii) *Hypothetical*: 'If my wife was there, I would eat from a white plate.'

(3)

Muti-küüi	phu	hin	nah	nah	pee:t	(la:n=a)	**ta,**
bead.string	price	DEM	S.2.SG	O.1.SG	give	before=CF	**CONJ**

kah	sa:	kah	kuum-ei=kkhai	shü.
POSS.1.S	Son	S.1.SG	save=FUT	EMPH

(i) *Implicative*: 'If you pay me for the beads, I will surely save my son.'
(ii) *Counterfactual*: 'If you had paid me for the beads before, I would surely have saved my son.'

Type V

Chinese (Sino-Tibetan: China)

(4) a.	她小 **的时候，**	每个人照顾她。	*Temporal*
b.	**如果**	你看到我妹妹，跟她打一个招呼。	*Implicative*
c.	**如果**	你下午问一下路，就不会走丢。	*Hypothetical*
d.	**假如**	你听了我的话，就不会吃亏了。	*Counterfactual*

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VOWEL DURATION IN TUTSA

This paper presents an analysis of acoustic duration of vowels in Tutsa, a lesser-known Tibeto-Burman language spoken in around 40 villages in the Tirap and Changlang districts of Arunachal Pradesh, India with around 10,234 speakers (Census of India, 2011), whereas, Rekhung (1992) claims that it is spoken by around 25,000 individuals. The language belongs to the Northern Naga subgroup of Tibeto-Burman languages (Post and Burling, 2017). The language is listed as Tutsa Naga (ISO 639-3 code: tvt) in the Ethnologue, and its vitality is rated as stable based on the EGIDS (Expanded Graded Intergenerational Disruption Scale).

This study is based on a brief wordlist of about 1000 words that was gathered during a field trip in August, 2023. The language consists of ten vowels /i, u, e, o, a, i:, u:, e:, o:, a:/. The ten vowels form five pairs as shown in Table - 1. Except for Muklom Tangsa, none of the related languages phonemically distinguishes between long and short vowels in complete pairs. In Tutsa, duration is found to be the only distinguishing factor for all the vowel pairs from 1 to 5 shown in Table - 1. The language doesn't show any specific pattern in the distribution of the short and long vowels. Results show that there are significant duration differences between the phonologically long and short vowels as shown in Table - 2.

This paper also examines: **(1)** distribution of short and long vowels in the data set across words consisting of different tones (High, Mid, Low, Falling); **(2)** duration of nasal coda in CVC syllable to see if there is a correlation - evidence shows the nasal coda to be longer in duration following a short vowel and shorter in duration following a long vowel; **(3)** duration of the rime (V/V: + C); **(4)** distribution of short and long vowels in - a) words consisting of different tones; b) word initial, medial and final positions, b) syllable types, c) word classes; **(5)** the occurrence of the short and long vowels with consonants in onset and coda position; **(6)** vowel frequency - investigates the frequency of occurrence of the vowels in the dataset for the above-mentioned point (4).

KEYWORDS: Tibeto-Burman, Vowel duration, Consonant lengthening, Phonotactics, Tutsa

Vowels		
	Short	***Long***
1	i	i:
2	u	u:
3	e	e:
4	o	o:
5	a	a:

Table 1: Short and long vowel pairs

Vowels	Median duration (ms)	Number of tokens
i	24	27
i:	34.25	27
u	11.5	21
u:	67.5	21
e	14	21
e:	31.25	21
o	26.5	33
o:	64.5	33
a	32.75	24
a:	63	24

Table 2: Vowel duration measurements

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Construction Expression of Subjective Quantity in North Anhui Dialect

Abstract: Subjective quantity is the quantity containing the speaker's subjective evaluation, which is the concrete embodiment of subjectivity in the quantity category. Subjective quantitative constructions is a grammatical means of expressing subjective quantity. Based on the theory of subjectivity and constructional grammar, this paper makes a cognitive analysis of the structure, constructional meaning and the subjectivity contained in subjective quantitative constructions of northern Anhui dialects, and points out their semantic and pragmatic characteristics. This paper divides the subjective quantitative constructions into two categories: subjective large quantity and subjective small quantity, and compares them with other Chinese dialects from the synchronic level, revealing their consistency and difference. This study can provide some support for subjective quantitative constructions of Chinese dialects and the establishment of the whole theoretical system of Chinese quantity category, and can also provide examples for the comparative study of Chinese dialect subjective quantity.

Keywods:North Anhui Dialect;Construction;Subjective quantity;Subjectivity

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Developing an Algorithm for System-Wise Phonological Contrastiveness Indices and Its Potential Application in Comparative Linguistics

In the field of comparative linguistics, effectively comparing phonological systems requires a robust set of reliable indices. To address this need, the development of an algorithm capable of generating such indices is essential. In this study, we propose an algorithm based on the Gini coefficient for generating indices that can quantify the degree of distributional balance or imbalance among contrastive elements within phonological domains. We demonstrate the potential utility of this algorithm for comparing language or dialect systems in phylogenetic linguistic research.

The Gini coefficient, also known as the Gini index, is a widely used measure of inequality, originally devised by Italian statistician Corrado Gini (1884–1965). It assesses inequality on a scale ranging from 0 to 1, with higher values indicating greater inequality. The calculation of the Gini coefficient involves grouping entities or individuals and analyzing the distribution of shares across these groups, thereby reflecting the equality or inequality of distribution among them. We adapt this concept to analyze the distribution of linguistic entities, such as phonemes, initials, finals, tones, consonant distributions (within place, manner, and voice domains), final structure complexity, and tonal contour types, across 224 variants (dialects) of the Chinese language in our study.

Our approach yields a comprehensive set of 17 indices that characterize distributional patterns at various levels of linguistic constituents. These indices serve as valuable tools for conducting comparative analyses across different Chinese variants. Our results demonstrate that this collection of indices, derived from the proposed algorithm, can effectively generate dendrogram trees that illustrate phonological similarities and dissimilarities among these 224 Chinese variants.

Keywords: Algorithm; Phonological Contrastiveness Index; Gini coefficient; Comparative linguistics

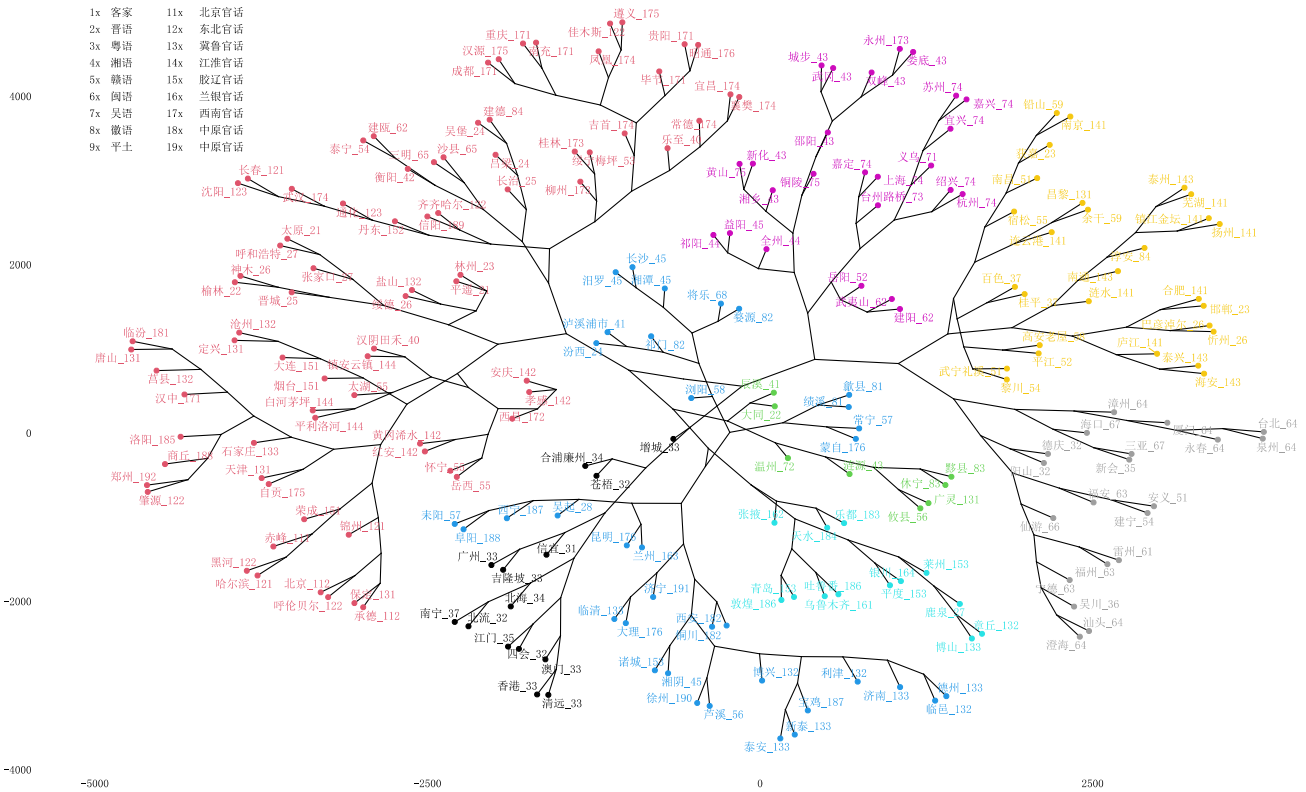

Figure 1. A phylogenetic display of the dendogram tree of 224 Chinese variants

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The applicative and non-applicative functions of the applicative particle gɔ²¹ in Kua'nsi

This paper discusses the applicative and non-applicative functions of the applicative particle gɔ²¹ in Kua'nsi, a Central Ngwi language spoken in Yunnan Province, China. The applicative particle gɔ²¹ occurs after intransitive or transitive verbs and adds a P argument to the clause. The semantic role of the introduced argument can be stimulus, beneficiary and location. The applicative particle is derived from the verb gɔ²¹ 'give', which is frequently used in serial verb constructions to introduce the beneficiary to the argument structure. Despite the functional similarities, the particle and the verb show distinct morphosyntactic properties, such as their position in the predicate complex.

It is not cross-linguistically unusual to find that the applicative morpheme can be used with functions other than changing syntactic valency, rather it may contribute to the clause semantics (Peterson, 2007, pp. 49–50). This is also true of the Kua'nsi applicative gɔ²¹. That means the use of applicative gɔ²¹ sometimes does not have any syntactic effect. The common non-syntactic functions of applicative morphology across languages are to convey semantic and/or aspectual nuances, such as intensity, forcefulness, thoroughness, iterativity, habitually, pluractionality, affectedness, and definiteness and specificity of the applied argument (Pacchiarotti and Zúñiga, 2022, p. 7). In Kua'nsi, when it does not introduce an additional argument, the applicative particle gɔ²¹ is commonly used to stress the affectedness of the P argument and/or convey the intensity of action.

Another common variation in the functions of applicative morphology is to introduce an agent as causative morphology does (the applicative/causative isomorphism; see Peterson, 2002, pp. 64–66, 133–140; Zúñiga and Kittilä, 2019, pp. 234–237). This is also observed in the use of the applicative particle gɔ²¹ in Kua'nsi, although the frequency of this use is extremely low. When the applicative particle gɔ²¹ is used to introduce an agent, it implies that the causer performs the action on the causee, i.e. the causee is affected by the action done by the causer. This is different from the causee in the causative construction formed by the causative particle tsi⁵⁵, who can have the control over the event.

Keywords: Kua'nsi, Ngwi, applicative, causative, semantic roles

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A Phonological Investigation of Bai (Jinman Variety)

Jinman Bai is a language spoke in a mountain village in Luobenzhuo Bai Township, Nujiang Lisu Autonomous Prefecture, Yunan Province. It belongs to the northern Bai (Xu and Zhao,1984:116-127) or the western Bai (Wang:2006,2013). In this study, we investigate Jinman Bai's phonetic characteristics based on speech data of two Jinman Bai native speakers Yangjie Lan and Ningjing Ma. The main consultant, Yangjie Lan, was 49 years old in 2023. She is a native Bai speaker and fluent in Lisu and Mandarin Chinese which she both learnt in her 20s. A canonical Jinman Bai syllable minimally consists of an obligatory nucleus (V) on a specific tone, and may comprise an optional initial consonant element, which cannot be consonant clusters: (C) V. (1) V /i^{33}/ 'sharp' (2) CV /fi^{33}/ 'fire'

Unlike most of other Bai variaties, Jinman Bai has a much more complex consonant system. There are 41 consonant phonemes in Jinman Bai, with places of articulation ranging from the lips to uvula. Place of articulation plays a important role in Jinman Bai's phoneme contrast. Velar and uvular consonants are contrastive in Jinman Bai as well as alveolar, retroflex and alveolo-palatal consonants. Plosives and affricates generally show a three-way distinction in manners: voiced, voiceless unaspirated and voiceless aspirated. Contrast in voice manner is common in Jinman Bai. However,voiced affricates in Jinman Bai seems to be in a progress of devoicing. Though voice manner still cause contrast in alveolar, retroflex and alveolao-palatal affricates, example words of voiced affricates are limited in number and sometimes can be pronounced in voiceless form. For instance, 'straw rain cape' could be pronounced as [tɕỹ^{33}] or [dʑỹ^{33}]. Jinman Bai has 22 monophthongs and 6 diphthongs. Contrast in nasality is common in Jinman Bai, which is to say, every oral vowel in Jinman Bai has its nasalized form. The vowels /ʊ/ is pronounced with the posture of labio-dental fricative [v] but the articulators are approaching each other not narrowly enough to create turbulent airflow. In addition, /ʊ/ is in phonemic contrast with the vowel /u/. Compared to other Bai variaties, Jinman Bai' s tonal system is rather simple. Jinman Bai has four tones: two level tones (high-level: /55/; low-level: /33/) and two falling tones (high-falling: /42/; low-falling: /21/). Low-level tone /33/ has a free variation /31/ and low-falling tone /21/ has a free variation /35/. These variations are commonly found in different local consultants' speech. No systematic tonal sandhi occurs in Jinman Bai.

In our full article, we provide examples for each of the above phonemes, and illustrate the phonetic properties of some phonemes with spectrograms. A transcripted passage is also attached at the end of the text.

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Engagement and Its Related Categories in Southern nDrapa

Engagement refers to the grammaticalized means of encoding the relative mental directedness of the speaker and addressee towards an entity or state of affairs. It expresses the speaker's assumptions about the degree to which their attention or knowledge is shared by the addressee (Evans et al., 2018a, 2018b). Engagement operates at several levels of grammar in most Qiangic languages, which have been ignored in previous grammatical descriptions.

This paper discusses the engagement category in Southern Mebzang nDrapa, a Qiangic variant spoken in Ganzi, western Sichuan (Shirai & Huang 2024). It introduces the formal and functional expressions of engagement with respect to 'perspective' and 'intersubjectivity' in this language. In Mebzang nDrapa, the engagement category is typically encoded by evidential or evidential-like strategies. Egophoric contrasts in Mebzang nDrapa are expressed through distinctive lexical forms of predicates. They can also be expressed through portmanteaux with other categories, such as aspect (EGO: *ɦɟɪ* vs. N.EGO: *ʂtɪ, wu*), negation (EGO: *ma* vs. N.EGO: *mə*), and interrogative sentence types (EGO: *ɦɟa* vs. N.EGO: *ra/a*). Non-egophorics, on the other hand, are indicated by the inflectional past-time suffix *-a* to denote actions that are not volitional on the part of the speaker.

In addition, the engagement category can be expressed through various perspective constructions related to movement actions and locative structures. For example, out of the three 'to go' verbs *ʑi, tɕhʊ*, and *jo*, only the verb *jo* 'to go' designates the speaker as a deictic landmark, giving their point of view privileged authority over the source of information (cf. Shirai 2021). Furthermore, different uses of nDrapa demonstratives can also characterize distinctive interpersonal space.

This paper concludes that 'engagement' is a central aspect of the Mebzang nDrapa grammar. It has a significant effect on accounting for the epistemic stance shared by interlocutors in communication.

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Definiteness in a language without definite articles: an experimental studies of Mandarin Chinese

Definiteness, as a universal meaning, are expressed by all human languages, but may be realized differently in different languages. In Schwarz's (2009) accounts on the semantics of definiteness, a distinction was drawn between strong (anaphoric) and weak (non-anaphoric) definites, based on whether the intended referent of the definite description is anaphoric to a linguistic discourse referent or not. German utilizes two distinct definite articles to lexically distinguish these two types of definites. In contrast, English, conveys both types of definites via a single article (1).

(1) a. weak (non-anaphoric) defienites in English
The moon was very bright last night. (Lyons 1979: 3)
b. strong (anaphoric) definites in English
Fred was discussing an interesting book in his class. I went to discuss **the book** with him afterwards. (J Hawkins 1978: 86)

However, there are also languages including Mandarin Chinese, where no evidence has been presented regarding the presence of overt articles. Aligning Mandarin with this distinction, there are competing claims over whether Mandarin differentiate these two types of definiteness lexically. Traditionally, Mandarin has been shown to use bare nouns to realize both strong and weak definites (2) (e.g., Chao 1968; Chen 2004; Dayal and Jiang 2021).

(2) a. weak definites in Mandarin
Yueliang sheng shang lai le.
Moon rise up come Le
'The moon has risen.' (Chen 2004:1165)
b. strong definites in Mandarin
Wo kanjian yi zhi mao. Mao zai huayuan-li.
I see one CLF cat Cat at garden-inside
'I see a cat. The cat is in the garden.' (Dayal 2004: 9)

Nevertheless, Jenks (2018) argues the anaphoric capability of bare nouns is limited to subject positions, and demonstratives, serving as the strong definite article, are required in non-subject positions in canonical anaphoric contexts (3). Based on this observation, Jenks (2018) proposes that Mandarin patterns with German in lexically distinguishing strong and weak definiteness, designating demonstratives as the strong definite article and expressing weak definiteness via bare nouns.

(3) jiaoshi li zuo-zhe yi ge nansheng yi ge nvsheng,
Classrrom inside sit-asp. one CL boy one CL girl
'There is a boy and a girl sitting in the classroom.'
wo zuotian yudao #(na-ge) nansheng.
I yesterday meet that-CL boy
'I met the boy yesterday.' (Jenks 2018: 510)

In order to evaluate these competing claims, two acceptability judgment experiments were conducted to validate previously-reported examples of the uses of bare nouns or demonstrative descriptions ([Dem-Cl-N]) as definites in anaphoric contexts. Experiment 1 aimed to see whether the presence/absence of an additional individual determines the felicity of the two forms, while Experiment 2 probed whether acceptability is affected by how the situations denoted by the sentences are ordered (chronological order vs. non-chronological order). Overall, the results indicate: (i) bare nouns as anaphoric definites were not categorically ruled out by

native speakers; (ii) the presence/absence of an additional individual does not significantly affect the choice between the two forms; (iii) in contexts where situations were not involved chronologically, Mandarin speakers significantly prefer demonstratives over bare nouns.

The findings of this study affirm that both bare nouns and demonstrative descriptions are acceptable in canonical anaphoric contexts in Mandarin, contradicting the predictions made by Jenks' (2018) account. The results provide empirical evidence supporting Dayal and Jiang (2021)'s argument. Furthermore, the study reveals that bare nouns are not the preferred form in some contexts (i.e., the non-chronological situation order), possibly due to the ambiguity of Mandarin bare nouns, which can carry definite, existential, and generic interpretations. The ambiguity of Mandarin bare nouns potentially makes native speakers to not be sure about them in some contexts.

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A tale of two losses: Cultural Erosion and its impact on the Language in Angami and Ao tribes of Nagaland

Abstract:

This paper examines the challenges faced by the Angami and Ao tribes in Nagaland, India, in preserving their tangible and intangible cultural heritage amidst modernisation and globalisation. Both tribes are renowned for their rich tangible cultural artefacts, including unique architecture, artwork, and traditional attire, as well as intangible cultural practices such as festivals, languages, rituals, and oral traditions. The research employs a qualitative approach, utilizing interviews, observations, and reviews of literature to understand the factors contributing to cultural erosion. Findings suggest that factors such as urbanization, education, and media influence have significantly impacted the preservation and transmission of traditional knowledge and practices. Additionally, the younger generation's shift towards modern lifestyles and a lack of interest in cultural activities pose significant challenges.

However, rapid socio-economic changes have led to a decline in transmitting these tangible and intangible cultural elements to younger generations subsequently endangering the existence of these valuable cultural heritage. An instance of this can be observed in the traditional attire of the Angamis, where the original colours of the traditional shawl worn by women—black, green, and red—are being substituted with different hues influenced by Western colour preferences. Nowadays, people often replace green with white or another colour, and red with pink, purple, and so on. If this trend persists, there is a concern that the younger generation will forget the original shawl colours, leading to a significant loss in our culture.

Another case in point is the Ao Nagas; like the rest of the Naga tribes, the Aos have a rich history of traditional and cultural practices. Prominent among their cultural practices is their reverence for natural forces and elements as spirits and deities, along with the tradition of taboo systems which are intricately woven in the fabrics of the culture. However, with rapid advancement in technology, communication and global cultural interaction many cultural knowledge and practices are being replaced by what is attributed to be more “modern” ideas and practices. This cessation of cultural practices accompanied by the loss of cultural knowledge has had a telling impact on the vocabulary of the language as well as its use in the socio-cultural sphere

The erosion of cultural practices and artefacts among the Angami and Ao tribes poses a profound threat to their languages, highlighting the intricate connection between cultural preservation and linguistic vitality. As demonstrated by the alteration of traditional shawl colours in Angami attire and the traditional and cultural practices of the Aos, the tangible and intangible aspects of culture are deeply intertwined. When traditional practices are abandoned or modified, the associated language faces a parallel decline. This phenomenon underscores the dynamic nature of language, which relies heavily on the preservation of cultural practices for its survival.

In conclusion, this study stresses the urgent need for collaborative efforts to address cultural erosion in the Angami and Ao tribes. It calls for the integration of traditional knowledge into formal education systems, the promotion of intergenerational dialogue, and the harnessing of digital media to safeguard and promote tribal cultures. By preserving their unique cultural

heritage, the Angami and Ao tribes can maintain their identity and contribute to the rich tapestry of cultural diversity in Nagaland. Much of the phenomenon discussed in this paper applies to many of the indigenous languages spoken in Nagaland which faces similar threats.

Keywords: Cultural erosion, tangible and intangible culture, Angami, Ao

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Hypercatalectic verses and genre markers in the Chinese *Chuci* and in Cora ritual chants

A hypercatalectic verse is one that follows a given metric schema but has an extra syllable at its end. There can be many causes for this addition in different poetic traditions, but one of them is that the added syllable can correspond to a lexical element that is exclusive of a given genre (or at least particularly frequent in it).

The intersection between hypercatalexis and genre markers has not been explored from a comparative linguistic anthropological perspective, and this presentation intends to make the case that such an approach can shed light into phenomena that have remained obscure to specialists until now.

The *Chuci* is the second oldest poetic anthology in Chinese. It was composed toward the end of the Warring States Period (481–221 BCE) and contains a vast collection of texts inspired by the peculiar animistic and shamanic religion of the State of Chu. One of the most prominent traits of this work is the omnipresence of interjections at the end of verses. The first part of this presentation will constitute a novel interpretation of such morphemes as hypercatalexis-inducing genre markers that stemmed from a set of ritual genres that later got transformed into a poetic style (*cf.* Qu Yuan 2017; Sukhu 2012).

The verses from the *Chuci* display easily identifiable metric patterns and, therefore, their analysis will be relatively simple. From that simplicity, the presentation will build a comparative framework to look at a more complicated instance: Cora ritual chants.

Cora is a language that belongs to the Southern branch of the Uto-Aztecan family and is spoken in the Mexican state of Nayarit. The verbal art practices of the Cora people are numerous, but their ritual chants are especially conspicuous because of their length (each chant lasts about 12 hours) and complexity. In 1906, the German anthropologist Konrad Theodor Preuss took by dictation and recorded a sample of these chants, about which he published a study under the title *Die Nayarit Expedition* (Preuss 1912).

In an appendix to his book, Preuss included a musical and metrical analysis of two chants by the ethnomusicologist Erich von Hornbostel (Hornbostel and Preuss 1912). For one of the two chants that he analyzed, Hornbostel proposed a metrical schema based on three iambic tetrameters and one iambic pentameter. The theory about the pentameter causes a series of abnormalities when applying the schema to many of the verses, but I will show how these deviations cease to be such when an alternative schema is considered in which there are four tetrameters, the fourth of which becomes hypercatalectic only when a genre marking evidential occurs.

Thus, this presentation will introduce the concept of hypercatalexis-inducing genre markers and will prove that applying it comparatively with the tools of metrics and linguistic anthropology can help us jointly understand peculiarities of poetic expressions as far removed from each other as are the ancient Chinese and the early XX century Cora.

Key words: poetic metrics, hypercatalexis, genre markers, Classical Chinese, Cora

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The sigmatic perfect in Tangut: Morphosyntax and grammaticalization of Tangut *sji*^{2}

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Tangut 𗍫$_{3916}$ *sji*^{2} is attested as both a nominalizer and a tense-aspect-modality-evidentiality (TAME) marker. The latter use is usually analyzed as Perfective, while recent studies have suggested Inferential evidential instead. Based on a detailed philological investigation, however, this article argues that 𗍫$_{3916}$ *sji*^{2} primarily marks Perfect, while the Inferential reading is a typologically common semantic extension of Resultative Perfects that applies only to certain contexts. By contrast with the sigmatic Inferential suffixes in other Gyalrongic languages, Tangut 𗍫$_{3916}$ *sji*^{2} is not restricted to Past or Perfective verbs, but rather compatible with verbs without Perfective prefixes and even those suffixed by 𗏒$_{1101}$ *·jij*^{1} 'FUT'. Such a distribution demonstrates its grammaticalization to Immediate Future, and also raises further questions on the historical comparison of sigmatic verbal suffixes.

Typological and Areal Universals of Tones of Austroasiatic Languages in China

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Abstract

Austroasiatic (AA) languages in China are sporadically distributed in the border areas of Yunnan and Guangxi, and they are heavily influenced by neighboring languages. Currently, research on the phonological typology of Tibeto-Burman, Hmong-Mien, and Tai-Kadai languages in China has achieved a lot, but research on AA languages, especially their tonal systems, is still inadequate.

This paper exhaustively selected 25 phonological points from 12 languages of 4 branches of the AA language family in China as the basic data, and selected 10 phonological points from 7 languages of 4 branches of AA languages in mainland Southeast Asia (MSEA), as well as 14 phonological points from 11 neighboring languages that have contact with AA languages in China, including the Tai-Kadai, Tibeto-Burman, Hmong-Mien, and Sinitic languages as reference data. The data had been collected through existing publications and fieldwork. Based on the above data, a phonological database was established to explore the relationship between the complexity of tonal systems and segmental features. Adopting the Multi-register and Four-Level model (Zhu, 2012), an analysis and a description of tonal types and universals in AA languages was conducted in terms of register, length, pitch height, and pitch contour. Subsequently, this study examined the tonal universals proposed by Maddieson and compared the tonal systems of AA languages in China with those in MSEA, as well as with neighboring languages, summarizing and generalizing the typological and areal universals of the tonal systems of these languages from the perspectives of tone, phonation type, and tonal pattern.

The typological findings include: (1) The complexity of tonal systems in AA languages in China shows a negative correlation with the number of single consonants, monophthongs, compound consonants, and consonant syllabic endings. This is mainly because the development of tonal systems in AA languages is closely related to the simplification of phonology and syllabic structures. (2) Geographically, there is a general trend of the number of tones increasing from west to east, reflecting the influence of contact with Tai-Kadai and Hmong-Mien languages. (3) Out of the 14 tonal universals proposed by Maddieson, 12 were examined, with 4 showing inconsistency, mainly due to sample differences. (4) The majority of tonal systems are single-

registered, and most languages distinguish the length of tone, with level tones and falling tones being predominant. (5) The proportion of tonal languages in AA language family in China is higher, and the tonal system is more complex than that of AA languages in MSEA, reflecting a stronger influence of neighboring tonal languages on AA languages in China. (6) In comparison with neighboring languages, AA languages in China show the most shared features with Tai-Kadai languages, mainly due to the close interaction between Austroasiatic peoples and Tai-Kadai people, resulting in a greater influence.

The areal universals are: (1) Several AA languages in China share with MSEA languages the feature of the co-occurrence of phonation contrast and pitch distinction in tonal systems, and shows a trend towards proximity to Tai-Kadai languages. (2) The number of tones in AA languages generally falls within the range of that observed in MSEA languages.

Key words: Austroasiatic languages in China; tone; Multi-register and Four-Level model; typological universals; areal universals

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The Tone Sandhi of Positive and Negative Interrogative Sentences in Nama Miao Dialect

Abstract: This paper mainly examines the tone sandhi phenomenon of positive and negative interrogative sentences in Nama Miao dialect, which spoken by people living in Nama Village, Yongfeng Street, Zhenfeng County, Guizhou Province. It is found that there are two forms of positive and negative interrogative sentences in Nama Miao dialect: V+Neg (ax)+V and V+Neg (ax bil), both of which exhibit tone sandhi phenomenon. In the V+Neg (ax)+V-type tone sandhi, there are three situations: first, the tone of the verbs (1 tone, 2 tone, 3 tone, 4 tone, 5 tone, 6 tone) become 2 tone (x), and when the 1 tone verb is at the end of the sentence, it becomes a light tone (new tone); secondly, the verbs (7 tone) remains unchanged; thirdly, the tone of the verbs (8 tone)is transformed to 7 tone. In the V+Neg (ax bil) type of tone sandhi, there are also three situations: first, the verbs (1 tone, 2 tone, 3 tone, 4 tone, 5 tone, 6 tone) become a new tone (inflectional tone); secondly, the verb appears in a falling tone (7 tone to 8 tone) and is accompanied by vowel-harmony; thirdly, the verb (8 tone) remains unchanged and is accompanied by vowel-harmony. This phenomenon of tone sandhi is due to the disappearance of negative words, which has the highest tone value among all syllables and automatically transfers to the preceding verb, resulting in tone sandhi.

Keywords: Nama Miao dialect; tone sandhi; positive and negative interrogative sentences; negative word

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Sociolinguistic aspects of Phongset in Laos

Based on recently conducted fieldwork, this paper explores sociolinguistic aspects of Phongset in Laos. The Phongset are one of the nine subgroups of Phunoi in the official ethnic classification of Laos. The population of the Phunoi was 39,192 in 2015. In 2001, the first description of the Phongset language spoken in a village in Bunneua District, Phongsali Province, was made, but there has been no further research on the Phongset language. Currently, there are three Phongset villages. In one village, where a Phongset speaker who was a linguistic consultant of the 2001 study lives, the Phongset language is endangered, and there are only eight fluent speakers, while in two villages in Phongsali District, Phongset is still being acquired by children. Although Phongset is classified under the Phunoi ethnic group, Phongset is linguistically quite different from Phunoi, and it is difficult for Phunoi speakers with no prior knowledge of the Phongset language to understand it.

Keywords: Phongset, Phunoi, Laos

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Tibetan Bora dialect aspect categories, controllability and associated motion

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Abstract: Previous studies（Felix Haller，1996；Zeisler, 2004） have characterized the Tibetan aspect category as intricate, lacking detailed internal relations, and often represented in a convoluted manner. However, recent fieldwork reveals that Tibetan aspect categories are not as complex as previously assumed, with clearer relationships between internal subcategories. Particularly, certain aspect markers demonstrate intertwined relationships with controllability and associative motion categories. Intriguingly, no instances of associated motion in Tibetan have been reported. Given the space constraints, a brief introduction to the category of aspect, controllability, and associated motion in Tibetan Boa follows, and the abstract does not contain specific example sentences.

Tibetan Bora is spoken by the residents of Bola Town in Xiahe County, Gannan Tibetan Autonomous Prefecture, Gansu Province, China. It belongs to the semi-agricultural, semi-pastoral vernacular of the Amdo dialect of Tibetan and features a three-level aspect system comprising situation aspect, phasal aspect, and viewpoint aspect.

The imperfective aspect in Tibetan Bora serves various syntactic and semantic functions. It is denoted by the clitic /dɜ/ (verb form "sit" བསྡད།), which can combine with verb stem 2 and the grammatical marker /kɯ/ to indicate continuous aspect, or with stem 1 for resultant aspect. It may also co-occur with stem 1 and the uncontrollability marker /pɯ/, or the controllability marker /cɲi/, along with associative motion markers /ju/ (verb form "come"ཡོང་།) or /ⁿʄo/ (verb form "go"འགྲོ).

The imperfective aspect marker, when paired with stem 2 and the grammatical marker /kɯ/, signifies continuous aspect, conveying a gradual progression towards a goal state or result. When associated with state or achievement situations, it denotes a gradual approach to the target state or result, ongoing action for dynamic situations, and repeated occurrences for semelfactive situations. This temporal structure places the topic time within the situation time, with the viewpoint pattern observing a specific interval within the overall situation.

The imperfective aspect marker directly combines with stem 1 to indicate resultative aspect, specifically with state situations and telic situations, expressing the telic nature of a state result or dynamic event. This temporal structure encapsulates the topic time within another situation's time, observing the retention of the outcome or end situation

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beyond the event situation.

The imperfective aspect marker, in conjunction with stem 1 and the grammatical marker /tu/, denotes the inceptive aspect, similar to activity, accomplishment, achievement, and univariate situations. When paired with transitive predicates, it signifies the beginning of a situation, presenting a temporal structure where the topic time is encompassed within the situation time, with the viewpoint pattern observing a specific beginning within the overall situation.

The imperfective aspect marker, when combined with stem 1 and the controllability marker /cçi/, along with associative motion markers, is applicable only to controllable activity, accomplishment, and achievement situations. Associated motion marked as /ju/ indicates a ventive direction category for controllable motion verbs, while /ⁿʒjo/ signifies the itive direction category. The temporal structure varies based on the verb type, indicating either concurrent or prior relations.

When the imperfective aspect marker co-occurs with stem 1 and the uncontrollability marker /pɯ/, along with associated motion markers, it is restricted to uncontrollable state and achievement situations. After the uncontrollability marker, the directional or associative motion meanings are neutralized, indicating a gradual approximation to the achievement state.

These imperfective aspects also encompass habitual aspect, with continuous and resultative aspects represented by the imperfective aspect marker /dɜ/ to /ⁿdɯx/ (verb form "sit"འདུག), while other aspects are represented by /dɜ/ to /ⁿdɯx/. Habitual aspect for the remaining aspects involves omitting the imperfective aspect marker /dɜ/.

In contrast to the imperfective aspect, the perfective aspect is essentially zero-marked. It can combine with verb stem 1 and the grammatical marker ta, or with stem 1 and the uncontrollability marker /pɯ/, or the controllability marker /cçi/, along with the associative motion marker /sʰu/ (verb form "went"སོང་) or the zero marker.

The historical marker ta, in conjunction with the inceptive aspect marker /tu/, is associated with activity, end/completion, and semelfactive situations, expressing dynamic continuity and event performance. This temporal structure overlaps the situation time with the topic time and concludes within the topic time, treating the entire situation as a unified whole.

The perfective aspect marker, when paired with stem 1 and the controllability marker /cçi/, along with associative motion markers, applies solely to controllable activity, accomplishment, and achievement situations. When the associated motion is zero-

marked, the expressed tendency is neutralized, with the temporal structure indicating concurrent relations for controlled motion verbs and prior relations for controlled non-motion verbs.

When the perfective aspect marker combines with stem 1 and the uncontrollability marker /pɯ/, along with associated motion markers, it is constrained to uncontrollable state and achievement situations. Following the uncontrollability marker, the zero marker and /s^hu/ are neutralized, devoid of directional or associative motion distinctions.

imperfective aspect				
phasal aspect		continuous aspect	kɯ	dɜ
		inceptive aspect	tu	dɜ
		resultative aspect		dɜ
controllability	cçi	ventive	ju	dɜ
		itive	^{n}ʝjo	dɜ
uncontrollability	wɯ		ji	dɜ
			^{n}ʝjo	dɜ
imperfective -habitual aspect				
phasal aspect		continuous aspect	kɯ	^{n}dɯx
		inceptive aspect	tu	
		resultative aspect		^{n}dɯx
controllability	cçi	ventive	ju	
		itive	^{n}ʝjo	
uncontrollability	wɯ		^{n}ʝjo	

perfective aspect			
			ta
controllability	cçi	neutralized	
		itive	s^hu
uncontrollability	wɯ		
			s^hu

Keywords: Tibetan, aspect categories, associated motion.

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Terms for 'corpse' in Gyalrongic languages and their implications to Sino-Tibetan historical linguistics

The present study provides a comprehensive analysis of four distinct etyma for the term 'corpse' within the Gyalrongic languages (Burmo-Qiangic, Sino-Tibetan). Through comparative linguistic methods, three of these etyma are found to have cognates in the broader Sino-Tibetan language family. Etymon A, with its stem *ma(ˠ)ŋ, originally signifying 'die, extinct', is a common candidate for terms for 'corpse' in Sino-Tibetan languages. Etymon B, represented by Proto-Khroskyabs *[ɕ].pʰoˠp, possibly relates to Thulung *pup-* 'die', suggesting a Proto-Sino-Tibetan origin. Etymon C, tentatively reconstructed as *m-g[a]m for Situ varieties, originates from a compound meaning 'person that is killed'. Finally, Etymon D, reconstructed as *rə̌.quᵏ in Horpa-Tangut, suggests a shared innovation between these languages, thus suggesting a closer relation between Tangut and Horpa. This paper's analysis contributes to the field of etymology within Gyalrongic and the Sino-Tibetan language family, which has received only scant attention so far.

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Phonetics and phonology of alveolar-release labial trill in Nuosu Yi

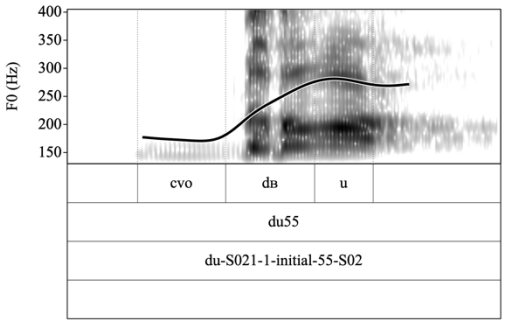
Introduction Voiced alveolar [d] has an allophone [dʙ] before the high back vowel [u] in Nuosu Yi, a Tibeto-Burman language spoken in Sichuan, China (cf. Edmondson et al. 2007: 87-90, Gerner 2013: 22). The allophone [dʙ] is produced with a labial trill immediately after the release of the alveolar stop [d]. This double articulation in the allophonic variation is a unique condition for labial trills, and the phonetics of this sound has not yet been fully reported.

Stimuli & Recordings We created a set of stimuli with /du/; (a) the three tonal contexts, low (21), mid (33) and high (55), (b) the syllabary or word, and (c) in a word whether it is in the initial or non-initial position. The syllabary was produced in isolation. The words were recorded as participants saw the context of the words. Recordings from five speakers and the combination contexts resulted in 414 tokens.

Results In most tokens, the trill is produced with two cycles of amplitude modulation as shown in Figure 1. During the modulation, the spectrogram shows that the strong amplitude has the comparable formant structures (F1, F2, F3) as in the vowel [u]. In real words, the amplitude modulation may be sensitive to the position. The trill is observed in /du/ in the initial position, whereas /du/ in the non-initial position occasionally is not produced with a trill. High tone syllables have a higher tendency to retain the trill portion rather than low tone syllables.

Discussion The amplitude modulation occurs in the cycle of 20 ms, which suggests that the configuration of the rounded lips is the trigger of trill. Note that the trill does not occur before [o] vowels, which means [+round] is not directly associated with the occurrence of the trill. The modulation of the amplitude may appear up to 4 times within the short window of time between the closure and the [u] production; the short duration of the labial trills prevents further modulation from occurring.

Conclusion The alveolar release labial trill is robust in our data, whereas labial trill as an allophone of /b/ was not always produced as a trill. Follow-up studies are planned to be conducted using a high-speed camera (1000 frame per second) to examine the articulation of these labial trills.



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Study of monosyllabic tones in Shaanxi dialects

--evidence from *Collection of Shaanxi Dialects*

There are 121 dialect spots in *Collection of Shaanxi Dialects*. The northern Shaanxi region has 31 dialect spots, the central Shaanxi region has 56 dialect spots, and the southern Shaanxi region has 34 dialect spots.

This paper analyzed monosyllabic tones in Shaanxi dialects from *Collection of Shaanxi Dialects*. The research has three findings.

First, in terms of tone category, the dialects in the central Shaanxi region have four tone categories, the dialects in the southern Shaanxi region have four to five tone categories, and the dialects in the northern Shaanxi region have four to six tone categories. As for the tone categories in the northern, central and southern regions of Shaanxi, Yinping, Yangping, Shangsheng and Qusheng are in the majority. There are Pingsheng, Pingshang, Yinping A, Yinping B, Yangpingshang, Shangqu, Rusheng, Yinru and Yangru in northern region of Shaanxi. There are Rusheng, Yinqu and Yangqu in southern region of Shaanxi.

Second, in terms of tone pitch, the tone pitch of the dialects in the northern, central and southern regions of Shaanxi are in the following.

regions / tone categories		Northern Shaanxi	Central Shaanxi	Southern Shaanxi
Pingsheng	Pingsheng	24, 34		
	Yinping	21, 31, 33, 213, 312, 213/31	21, 24, 31	31, 33, 34, 35, 42, 43, 45, 53, 55, 213, 214
	Yinping A	51		
	Yinping B	31		
	Yangping	24, 33, 44, 242	21, 24, 35	21, 25, 31, 35, 42, 43, 45, 52, 53, 211, 213, 311, 443
Shangsheng	Shangsheng	52, 53, 213, 412	42, 51, 52, 53	33, 35, 42, 44, 45, 52, 53, 343, 354, 435
Qusheng	Qusheng	42, 44, 51, 52, 53, 55	44, 55, 213	31, 44, 51, 55, 213, 214, 312, 323, 324
	Yinqu			212, 213, 214
	Yangqu			21, 22, 211
Rusheng	Rusheng	3, 4, (24), 23, 233, 24, 24/4,		35

		ʔ5/5, ʔ53/53, ʔ54		
	Yinru	54, ʔ3, ʔ313, ʔ532/532, ʔ54/54		
	Yangru	43, ʔ213, ʔ5, ʔ54		
Others	Pingshang	243		
	Yinpingshang	213		
	Yangpingshang	132, 213		
	Shangqu	44, 52		

It could be seen from the above table that the dialects in the central region of Shaanxi have the least in the number of tone pitch, while the dialects in the southern region of Shaanxi are the most in the number of tone pitch.

Third, in terms of tone types, as for the dialects in northern region of Shaanxi, Yinping is mostly falling-rising, Yangping is mostly high rising, Shangsheng is mostly falling-rising, Qusheng is mostly high falling, and Rusheng is mostly middle tone. As for the central regions of Shaanxi, Yinping is mostly mid falling, Yangping is mostly high rising, Shangsheng is mostly high falling, Qusheng is mostly high level. As for the southern region of Shaanxi, Yinping is mostly mid falling, high level or high rising, Yanping is mostly mid falling or low falling, Shangsheng is mostly high level, and Qusheng is mostly falling-rising.

Compared with monosyllabic tones in local chronicles of various regions in Shaanxi, the tone categories are increased by six. In totality, the tone pitches in northern region of Shaanxi have decreased by six, and increased by nine; the tone pitches in central region of Shaanxi have decreased by six; the tone pitches in southern region of Shaanxi have decreased by seven, and increased by seven.

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Adversative passive in the Linxia dialect and beyond

The Linxia dialect, also known as the Hezhou language, belongs to the Hezhou subgroup of Central Plain Mandarin. The speakers of this dialect are widely distributed in the provinces of Gansu and Qinghai. Due to deep contact with neighboring non-Sinitic languages in the Gansu-Qinghai linguistic area, the Linxia dialect exhibits many features that are distinct from other Sinitic languages, such as the SOV word order, case marking, etc. The adversative passive is one of the non-canonical passive constructions (Creissels 2006); it is commonly used to express events that are unfortunate or detrimental to the speaker. This type of passive construction is attested in various Asian languages such as Thai, Malay, Even, and Japanese (Prasithrathsint 2004; Nomoto and Wahab 2012; Wierzbicka 1988; Malchukov 1993), in addition, the *bei*-construction in Mandarin Chinese is also considered to often convey an adversative meaning (Hashimoto 1987; Chappell 2015). In the Linxia dialect, the adversative passive, along with causative and applicative, share a post-verbal element *=ti*, implicating a semantic continuum across these syntactic configurations. Its predicates involve a verbal complex, which can be realized by a resultative verb-complement or by appending an aspectual auxiliary with completive meaning to the main verb, for example:

(1) tʰɯ ta pə=ti liɔ
head hit break-PASS PFV
'(His) head is broken.'

(2) tɕʰiɑ̃pau tʰɯ kuə=ti liɔ
wallet steal EXP-PASS PFV
'the wallet was stolen.'

In this paper, we first introduce the adversative passive of Linxia within the context of the ambivalent voice, exploring its syntactic and semantic characteristics with a focus on affectedness, verb sensitivity, and information structure. We then compare it with similar structures in Mongolic languages, such as Bao'an, from the Gansu-Qinghai linguistic area, aiming to discern the influences of language contact on the syntactic developments between Sinitic and non-Sinitic languages. Lastly, through a typological lens, we extend our analysis to include additional languages from diverse language families, tracing the possible origins of the adversative passive.

Keywords: Adversative passive, the Linxia dialect, linguistic typology

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Semantic Distinctions: Understanding the Usage of *Chū* 'to go out' and *Rù* 'to go into' as Directional Complements in Mandarin Compounds

Keywords: Directional complements, Manner-of-motion verbs, Directed-verbs, Image schemas, Force dynamics, Cognitive semantics

Abstract

This paper aims to analyze the V *Chū* and V *Rù* compounds, where the verb is a manner-of-motion verb or directed-motion verb, in order to find out the collocational restrictions of those verbs with directional complements *Chū* and *Rù*. The analysis is conducted based on image schemas.

Liu (1988) has extensively discussed *Chū* V compounds, and the V are directional complements such as *Lái*, *Qù*, *Shàng*, and *Xià*. Lin (2001) analyzes the two structures *Chū* X and X *Chū* by classifying X into different categories, either verbs or nouns. While previous studies have explored the semantic meaning and usage of *Chū*, the asymmetrical distribution of *Chū* and *Rù* has not been discussed. For instance, Tao (2003) mentions that *Fú Chū* 'float appear' is acceptable, while **Fú Rù* 'float into' is not. Hence, this study further investigates V *Chū* and V *Rù* compounds and their asymmetrical distributions.

The verbs compounded with *Chū* and *Rù* include manner-of-motion verbs and directed-motion verbs, categorized by Ruxandra (2011). According to Cummins (1996), the differences between these two types of verbs can be distinguished by semantic features [+/- translative] and [+/- directional]. Manner-of-motion verbs include *Bān* 'move', *Tuī* 'push', *Tiào* 'jump', and *Zǒu* 'walk', etc. Directed-motion verbs include *Jìn* 'move forward', *Tuì* 'move backward', *Shēng* 'move upward', *Luò* 'move downward', *Fú* 'float', *Qián* 'dive', *Mào* 'flow out', and *Zhǎng* 'grow', etc.

Manner-of-motion verbs are inherently non-directional. However, when compounded with *Chū* and *Rù,* the compounds acquire the [+directional] feature. Take, *Zǒu Chū fáng jiān* 'walk out of the room', for example. The compound *Zǒu Chū* gains the direction – to go outside of the room, which aligns with the SOURCE-PATH-GOAL schema (Langacker & Lakoff 1988). The room in this example is the CONTAINER, and the involved entity is the FIGURE, whose movement determines whether *Chū* and *Rù* should be used. On the other hand, **directed-motion verbs** inherently possess the directional property, resulting in some complexity. Firstly, some directed-verbs are in the UP-DOWN relation, involving the VERTICALITY schema. For example, the verbs *Zhǎng* 'grow' and *Fú* 'float', with a direction of going up. According to the VERTICALITY schema, *Zhǎng Chū* 'grow out of' and *Fú Chū* 'float appear' are suitable compounds because the outward property of *Chū* is compatible with the upward property of *Zhǎng* and *Fú.* However, *Zhǎng Rù* 'grow downward' and **Fú Rù* 'float into' are different cases. This is the second issue of '**Force Dynamic**', involving the real-world forces (Talmy 2000). Due to the fact of force from reality, the compound phrase such as g*ēn Zhǎng Rù dìxià* 'root grows downward into the ground' is an acceptable usage. However, because of the force of buoyancy with an upward direction, *Fú* is incompatible with *Rù*. All V *Chū* compounds with manner-of-motion verbs can be explained by the CONTAINER schema and the SOURCE-PATH-GOAL schema, while V *Chū* compounds with directed-motion verbs cannot, due to the Force Dynamic.

The analysis reveals that the manner-of-motion verbs acquire directional property when combined with the directional complements *Chū* and *Rù*, aligning them with the CONTAINER and SOURCE-PATH-GOAL schemas. Conversely, directed-motion verbs pose complexities due to their inherent directional properties. The

VERTICALITY schema and Force Dynamic theory come into play. This study sheds light on the use of V *Chū* and V *Rù*, providing valuable insights for understanding antonymous pairs *Chū* and *Rù* in Mandarin Chinese.

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The polysemous verbs in Sishui dialect of the Chinese

Keyword: Shandong dialect of Chinese, polysemous verb, morphosyntax

This paper attempts to describe six polysemous verbs (**kan^{213}/pan^{213}/tsuə^{213}/liə^{35}/nəŋ^{213}/tsi^{213}**) in Sishui dialect of Chinese (Shandong, China), which can be translated as "make/ do", by utilizing the first hand data. This paper owes the definition of the polysemous verbs to Liu (1997) and Wu (2020). Zhang (2024) explored the polysemous verb in Yanggu (Shandong, China) dialect of Chinese, though the paper presented the examples by using Chinese characters which may yield problems when the different morphemes have the same pronunciation. To avoid such a problem, this paper uses IPA to analyze data as shown below.

Data analysis:

(1) Verb + noun

a. **kan^{213}/tsuə^{213}** me^{35}mer^{0} li^{0}
V business SFP "A man who sells things for living"

b. **tsi^{213}/tsuə^{213}** ts^{h}e^{213}
V dishes "make meal"

(2) Verb + complement

kan^{213}/pan^{213}/tsuə^{213}/liə^{35}/nəŋ^{213} i^{35}tʰien^{35} lə^{0}
V a day SFP "(someone) has been doing (it) all day long"

(3) Verb + quantifier phrase

kan^{213}/pan^{213}/tsuə^{213}/liə^{35}/nəŋ^{213}/tsi^{213} i^{35} xiə^{51}tsi^{0}
V 1 CLF "make/do a large amount of something"

(4) Verb +demonstrative phrase

kan^{213}/pan^{213}/tsuə^{213}/liə^{35}/nəŋ^{213}/tsi^{213} tsəŋ^{51} tien^{35}tsi^{0}
V DEM CLF "make/do a large amount of something"

(5) Interrogative + verb

tsəŋ^{51}tsə^{0} **kan^{213}/pan^{213}/tsuə^{213}/liə^{35}/nəŋ^{213}/tsi^{51}**
how V "how will you do"

The example (1a) contains three morphemes. In this example, only two of the polysemous verbs can be used. The example (1b) shows a verb phrase where two of the polysemous verbs can occur. (1a) and (1b) can also be found in Mandarin Chinese. In (2), /tsi^{51}/ cannot be used in (2) because /tsi^{35}/ requires an object to complete the sentence. All of the six polysemous verbs can occur in (3) and (4). As for /kan^{213}/and /pan^{213}/, however, the phrase can be decoded only as "make a large amount of something", whereas as for the others, the verbs can be translated as "make" and "do". The polysemous verbs in (5) can all be used as well without the semantic difference.

Conclusions: /kan^{213}/, /pan^{213}/, and /tsuə^{213}/ are borrowed from Mandarin Chinese. The original meaning of these three verbs is "do", "handle" and "make" respectively, though as polysemous verbs they all can behave the same (Examples (2) and (5)). /nəŋ^{213}/ and /tsi^{213}/ are widely used in the Shandong province than the other

areas in China. The original meanings of these two verbs are “make” and “treat” respectively, but as polysemous verbs /nəŋ^{213}/ can be combined with complement, while /tsi^{213}/ cannot. As for /liə^{35}/, the original meaning of this morpheme remains uncertain, though as polysemous verb, it means “make” or “do”. The polysemous verbs mentioned above have the same function as normal verbs and can be replaced by a lot of verbs, though there are some conditions. /liə^{35}/ and /nəŋ^{213}/ cannot occur in the phrase which are borrowed from Mandarin Chinese. When using /tsi^{35}/, an object is required in the sentence. When the polysemous verbs are combined with quantifier phrase and demonstrative phrase, /kan^{213}/and /pan^{213}/ behave differently from the other three verbs.

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Aspect is not a fully grammaticalized category in Bai

Abstract: Aspect is a phenomenon that exists across languages, but the grammaticalization of aspectual distinctions varies from language to language. There are six postverbal aspect markers in Meiba Bai, namely, completive *-xɯ55*, resultative *-tɯ44*, young continuous *-tɕiɛ31*, inchoative *-kʰɯ44/xɯ44*, experiential *-kuɔ42*, and prospective *-kʰɔ42*. This paper illustrates their function by comparing the semantics of sentences with or without these aspect markers. Moreover, the distribution pattern of aspect markers is examined by investigating their selection of verbs, syntactic environments, incompleteness effect and co-occurance with each other. It shows that these aspect markers are grammaticalized but differ in the degree of grammaticalization, and none of them is fully grammaticalized. For this reason, the term *perfective* and *imperfective*, which are highly grammaticalized aspects according to Bybee et al. (1994), are not used in labelling aspect markers in Meiba Bai. The data of this paper demonstrates that the grammaticalization of different aspectual meanings may vary widely, therefore, rather than putting all of them into a dichotomous system, it is more important to comprehensively describe their function and distribution.

Key words: Aspect; Bai; Grammaticalization; Semantics; Distribution

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Ethnobotanical terms in the evolution of noun categorization devices in Tibeto-Burman

Tibeto-Burman languages are known to have numeral classifier systems of various degrees of grammaticalization (Jiang 2009). Numeral classifiers and class terms are both productive means used in noun categorization in languages of this family.

This study characterizes three sub-systems of noun categorization that are diachronically related: class terms, repeaters, and non-repeaters (commonly known as sortal classifiers that are not repeaters), with a special focus on their historical relationships.

With the aim of understanding how numeral classifiers are grammaticalization from compound nouns, we choose two ethnobotanical concepts 'leaf' and 'fruit' as the objective of this study. Vegetal domain is often the most productive field for class terms and noun classifier device (Grinevald 2000). 'Leaf' and 'fruit' are typologically common lexical sources for shape classifiers (Conklin 1981; Aikhenvald 2000). Within Tibeto-Burman, ethnobotanical terms 'leaf' and 'fruit' are also frequent etyma of numeral classifiers for 2-dimensional and 3-dimensional objects in languages of this family, notably the Ngwi and Burmish languages. Understanding how these two productive class terms became numeral classifiers is important to understand the mechanism of the evolution of noun categorization devices in this language family and in the broad area of East and Southeast Asia.

As class terms in compound nouns, 'leaf' and 'fruit' are originally nouns and have developed into repeaters to classify nouns pertaining to sub-categories of 'leaf' and 'fruit'. They further developed from taxonomical repeaters to shape classifiers as a result of 'parameter shift' (Li 2024) in noun categorization. 'fruit', as a 3D-classifier, may further evolve into an inanimate or a general classifier.

A survey of over 30 Tibeto-Burman languages generally supports the grammaticalization cline 'class terms > repeaters > non-repeaters' that has been proposed in Dai & Jiang (2005). Several more fine-grained accounts are proposed to characterize the development of numeral classifiers from ethnobotanical terms:

(1) the change of semantics and the morpheme order of 'leaf' and 'fruit' in compound noun
Morpheme order change: [Class term-Head noun]—> [Head noun-Class term]
Semantic change: taxonomical – > shape

(2) the evolution from repeaters to non-repeaters

form:	prototypical repeaters→	non-prototypical repeaters→	non-repeaters	
semantics in categorization	taxonomical	shape	inanimate	general

(3) the semantic extension of three roots of 'fruit' in Tibeto-Burman

root	form	fruit	3D objects	inanimate objects	animate objects
/s-/: [+3D objects]	CT	+/-	+/-	-	-
	CLF	+	+	-	-
/l-/: [+3D objects]→[+inanimate]→[+animate]	CT	+/-		-	-
	CLF	+		+(partial)	+(rare)
		female/large	3D objects	inanimate objects	animate objects
/m-/: [+3D objects]→[+inanimate]→[+animate]	CT	+	+ (rare)	-	-
	CLF	-	+	+	+

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A Reconstruction of Proto-Naish Closed-syllable Rhymes

The present study reconstructs the Proto-Naish rhyme system. Data from 3 Naish languages—Lijiangba, Malimasa, and Yongning—are employed in the reconstruction. Rhyme correspondences revealed by comparing the three languages are interpreted by referring to conservative languages of the ST family, in particular Tibetan, Burmese and rGyalrong. Other Naic languages, such as Namuyi and Xumi, are taken as references. From the perspective of the phonological system, Proto-Naish has five vowels, *-a, *-e, *-i, *-o, *-u, and seven codas, *-k, *-ŋ, *-ɣ, *-t, *-l, *-p, *-m. There are some restrictions on the combination of vowels and codas. All seven codas can appear after *-a, after *-e only *-ɣ and *-l have been preserved, *-o is compatible with *-ɣ while *-i with *-l. The correspondences are summarized as follows:

PN	LJ	MM	YN	environment
*aɣ	ɑ	ɑ	ɑ	
	u	ɑ	o	Labial stops or nasals
	ɚ	a	a	Affricates or fricatives
	ɤ	ɤ	ɤ	K: K: Q
	a	a	a	0: l: 0
*waɣ	ɚ	o	a	
*al	ɑ	ɑ	a	P: P: P
	ɑ	ɑ	ɑ	l: l: l
	uɑ	ua	ua	ʈʂh: ʈʂh: ʈʂh; l: l: ʐ; l: l: ɻ
	a	ua	ua	dz: dʐ: dʐ; s: ʂ: ʂ; f: x: h
*ar	ɑ/ɤ	ɑ	ɤ	
*am	a	a	a	Plosives or laterals
	y	y	i	Lateral fricative
	o	u	o	Affricates or fricatives
*ap	o	u	o	stops
	y	y	i	Affricates or fricatives (non-Tɕserie)
	y	iu	u	Tɕ: Tɕ: Tɕ
*eɣ	ɚ	i	i	
	ɚ	ɯ	a	Tsr: Ts: Tsr
	ɚ	ie	a	/: 0: ʁ
*er	iɤ	iɤ	ɤ	
	i	ɚ	ɯ	sr: sr: sr
*oɣ	o	o	o	
	v	o	v	K: K: Q
*ir	i	i	o	
	u	i	o	P: P: P
	o	i	o	x: ɕ: h

Some tendencies of the evolution of the Naish languages can be generalized: (1) the difference of plosive vs. affricate and fricative initials serves as an important condition for vocalic changes; (2) the -r- and -j- like medials are possibly preserved in Proto-

Naish and neutralize succeeding vowels; and (3) codas with different manners of articulation often merge together, while place features remain distinctive.
This new reconstruction provides a more solid base for discussion of the position of Naish within Tibeto-Burman languages.

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SERIAL VERB CONSTRUCTIONS IN SIMTE

This paper investigates the serial verb construction in Simte. Simte is one of the Kuki-Chin sub-group of the Tibeto-Burman family, consisting a population of 6728 as per the Census of India, 2011. The speakers of this language are mainly concentrated in Pherzawl and Churachandpur district of Manipur, India. The language under study exhibits pro-drop and SOV as its sentential construction. The goal of this paper is to describe the grammatical verbs and the semantics of these serialized verbs. Works on serial verbs, especially on Kuki-Chin languages, are found in Mizo (Chhangte, 1989), Teddim Chin (Ching, 2017), and Hmar (Infimate, 2019) but not a single work is found in the language in discussion. So, this work will enhance significant contribution to the Simte literature. In the preliminary analysis, it is observed that several factors play an important role in the construction of serial verbs.

First, this language does not have an overt non-final (NF) marker (Delancey, 1991). It is also observed that some verbs have their own independent lexicalized meaning (Boro, 2011). The case is different when it occurs with another verb in sequence; the said verb is grammaticalized thereby providing different meaning. Below are some of the grammaticalized verbs found in Simte.

Verbs	Lexical meaning	Grammatical meaning
bei	*'end'*	*'exhaustive'*
xou	*'finish'*	*'completive'*
san	*'leave'*	*'action accomplished before the referent person'*
lum	*'sleep'*	*'cease to exist (dead)'*
pan	*'start'*	*'to start doing something'*
'maŋ'	'lost'	'to keep away' '
'k^ha'	*'experience'*	*'to commit an act'*

Of all the grammatical verbs mentioned above, the verb '*xou'* and '*pan'* are productive as it can occur along with any other verbs.

Second, it is evident that both the motion verbs can occur in a sequence. Semantically, there is a change in motion from something in stable condition to unstable/ spoiled condition. The serial verbs share the same subject with no intervening grammatical forms between the two verbs. They also share the same agreement marker, same clause, and only one negative marker is sufficient for both the verbs.

Example (1) shows that the two verbs shared the same subject, and negation is inflected in the second verb .

(1) *Jon -in a nau -pa a zep kap -si?*

John ERG 3SG.GEN brother M 3AGR beat cry NEG

'John didn't beat his brother' [Lit. john did not beat and make his brother cry]

Example (2) explains that the TAM marker is attached to the second verb and is shared by both the verbs. Hence, the schematic representation is VV-T/A/M

(2) pa -bom a sep ke: -ta

flower vase 3AGR throw broke PERF

'(S)/he has broken the flower vase'

Keywords: Simte, Kuki-Chin, Serial verb, grammaticalized verb

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Morphemic Inventory relation of Ordinal and Superlative Typology

The ordinal expressions and superlative morphemes are cognitively and formally related according to the evidence shown in some Indo-European typological research. The present dissertation proposed from historical and comparative perspective of linguistics a relationship between ordinal and superlative expressions in Sino-Tibetan languages, as well as dialects in China, in which the two cognitive domains are closely related in semantics, but not necessarily associated in morphemes.

Previous research showed that Proto Indo-European (PIE) *-*isto*-、*-*is*-*m̥o*-、*-*tama*- is closely related to the ordinal suffix, such as the Latin '*us*', Greek '*τος*', Sanskrit '*má*'.

In Sino-Tibetan languages, however, the inventory means of superlatives is not obviously corelated with ordinal numerical morphemes. The ordinal numeric morphemes, like '째' in Korean, '番' in Japanese, 'thứ' in Vietnamese and 'ที่' in Thai, are rarely used in forming superlatives, but often carry the meanings of 'sequence' or 'position'.

Notably, the term 'first' is closely associated with the superlative degree within the ordinal number system. This phenomenon is evident in languages such as Hmong–Mien, Kra–Dai and Tibetan languages. Among the 19 languages examined, 12 have distinct morphological means for expressing 'first' and in some of these languages, 'first' can function as an ordinal number. Nishimura (2001) proposed that the suffix *-*mo*, when combined with words representing 'first' and the final part of ordinal numbers, triggers the use of *-*to*- as a suffix for the superlative.

The intermediary role of 'first' as a morpheme associated semantically with both ordinal numbers and superlatives serves as a bridge for the extension from cardinal numbers to superlatives. This study investigated the syntactic distribution of 'first' (第) and 'most' (最) in Chinese through a corpus analysis (CCL corpus) but found no significant syntactic or etymological correlation between the two. However, Middle Chinese and Chinese dialect surveys indicate that besides serving as an ordinal number, 'first' can also function as a superlative adverb. According to Ningbo dialect, the 'first' is also used to express superlative meaning.

Cross-linguistically, there is an association between the means of expressing ordinal numbers and superlatives, and the extension of the ordinal number system to encompass superlatives becomes a means for expressing superlatives. Additionally, due to the shared semantic features

between ordinal numbers and superlatives, the use of ‘first’ facilitates the development of a repository of ordinal numbers, contributing to the superlative degree. However, in languages like Chinese, which utilize analytic methods for expressing the superlative degree, there remains a semantic link between ordinal numbers and superlatives, although historical evidence supporting this relationship is lacking.

	Ordinal Structure	**1st**	**2nd**	**3rd**	***“last”***	**Larger than10**
Wa	Cl + Num	-	-	-	-	-
Zhuang	ta:i^{6} +Num	♦	-	-	-	-
Sui	ti^{3} + Num	♦	♦	-	-	-
Mon	ti^{6} + Num	♦	♦	-	-	-
Li	te+Num	**gwou^{3}**	-	-	**tsheɯ^{3}**	-
Drung	ti^{55} + Num	-	-	-	-	-
Miao	ti^{35}+Num	-	-	-	-	-
She	thi^{4}+Num	**thi^{4}/ka^{2}i^{4}**	-	-	-	♦
Mian	tei^{3}+Num	-	-	-	-	♦
Bunu	tei^{3}+Num	♦	♦	-	-	♦
Lajia	ta:i^{4}+Num	♦	♦	♦	-	♦
Lahu	Struc	♦	-	-	♦	-
Bai	ti^{31} + Num	**to^{43}**	**tsy^{31}**	**se^{31}**	-	♦
Tujia	ti^{35}+Num	-	-	-	-	-
Tibetan	Nmu+pa^{54}	**thaŋ^{15}po^{54}**	-	-	-	♦
Jingpo	de^{3}/thɯ^{5} + Num	♦	-	-	-	♦
Eastern Yugur	-rdʒer	-	-	-	-	-
Western Yugur	-ndzi̱	-	-	-	-	-
Sedang	muku-	**Kijal**	-	-	-	**-**

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On Evidentially Marked Equative Copulas:

The Case of 'Bumyag Amdo

Abstract:

This study focuses on evidential usage of equative copulas in ‘Bumyag, a distinct Amdo dialect of Lithang County in Sichuan Province (Sun & Lin 2023). It is well-known that the Tibetan equative copulas <yin> and <red> in most modern varieties manifest a built-in binary evidential opposition construed as 'new knowledge' vs. 'assimilated knowledge' (Sun 1993), 'acquired' vs. 'assimilated' knowledge (van Driem 1998), 'personal' vs 'generic' (DeLancey 2017), 'egophoric' vs. 'factual' (Tournadre & Jiatso 2001; Tournadre & LaPolla 2014); see also Haller 2000, Gesang Jumian & Gesang Yangjing 2002. However, relatively little study has been conducted on equative copulas explicitly marked for evidential morphology, over and beyond their lexically inherent evidential values. In this respect, 'Bumyag shows amazing combinability of equative copulas with all sorts of evidential markers, as exemplified in the following contrastive pairs (more possibilities are summarized in the table below).

(1) a. tə ⁿdəⁿdzʯok re-tʰa
that this.manner be-EVI
This is done.
(There was A conflict between the two families, and they finally reached an agreement.)

b. tə təⁿdzʯok jən-tʰa
that that.manner be-EVI
It seems to be used in that way.
(When two outsiders have no basic knowledge of a special tool used by the locals and when it is used by the locals, one of them may say so to the other with some doubts.)

(2) a. ⁿdəⁿdzʯok re-kə-jo-kʰʊ
this.manner be-IPFV-AUX-EVI
It is good in this way.

b. təⁿdzʯok jən-kə-jo-kʰʊ
that.manner be-IPFV-AUX-EVI
That is so.
(When everybody takes that side, I just follow them.)

Table 1 Evidential markers that may follow equative copulas

re	jən	Markers
√	√	-tʰa, <tha>
√	*	-kə, <gi>
√	√	-zək, <zig>
√	√	-ⁿdzɐ, <ni.red>

√	√	-nəjən, <ni.yin>
*	√	-nəjən-tʰa, <ni.yin.thal>
√	√	-nəjən-zək, <ni.yin.zig>
√	√	-nəjən-sa-jo-kʰʊ, <ni.yin.sa.jod.gi>
√	*	-jot, <yod>
√	*	-jo-tʰa, <yod.tha>
√	*	-jo-kʰʊ, <yod.gi>
√	√	-jo-zək, <yod.zig>
√	*	-jo-ⁿdʐe, <yod.ni.red>
√	*	-kə-jot, <gi.yod>
√	√	-kə-jo-kʰʊ, <gi.yod.gi>
√	√	-sa-jo-kʰʊ, <sa.yod.gi>
√	*	-bʊ-tʰa, <bud.tha>

It will be our goal in this paper to account for the contribution of the separate equative copulas to evidential semantics in all these complex forms, and examine how their inherent evidential meanings are retained, shifted, or cancelled as they enter into these complex morphological structures.

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Wen Liu
Shandong University

Acoustic and perceptual characteristics of multi-falling tones in Bai

Abstract: Categorical perception of tones has drawn much attention in recent years. However, previous studies mainly focused on the tones with different contours, and few studies paid attention to the tones with the same contour. Therefore, it is necessary to investigate the tones with the same contour in that the different tone contours may lead to different perceptual patterns. Taking the four falling tones in Bai (Meiba variety) as an example, this study first demonstrates the acoustic foundation of the four falling tones using acoustic analysis. On the other hand, the perceptual experiment shows that the perceptual patterns of four falling tones all belong to continuous perception. Moreover, the phonation types of tones also affect the identification score and boundary position. Based on the correlation between phonation types and perceptual results (i.e., identification score, boundary position), this study proposes a criterion to identify whether the phonation types of speech sounds are the same.

Ying Liu and Wei Zhang
Qufu Normal University

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An acoustic analysis on the Rounded Degree Variation of Vowel /a/ in Zouping Dialect

Abstract:

Dialect variation not only reflects the historical hierarchy but also complex and changing social attributes. The Zouping dialect, a variant of Ji-Lu Mandarin Chinese, distinguishes itself through its unique phonological system, particularly the rounded vowel /a/, which resembles the sound /ɒ/. The objective of this study is to analyze the variation in the rounded degree of the vowel /a/ in the Zouping dialect and give a comprehensively examine on the social factors behind it.

The study involved three main processes. Firstly, video recordings were made of four speakers from different genders and generations in Zouping rural areas. They were asked to read words containing the diphthong /a/ while sitting in front of a Redmi phone with a camera of two hundred million pixels. The videos were processed using Photoshop 2022. Additionally, the four participants took part in a perceptual experiment. The acoustic experiment was conducted in a small, quiet living room. Data was collected from 52 native speakers, consisting of single-word spoken samples. The speakers were divided into two gender groups and three age groups. Detailed information regarding their background, including education, work, level of Standard Mandarin, and frequency of using dialect, was recorded. Additionally, the experiment involved two Standard Mandarin speakers. The acoustic data were annotated using Praat 6308_win64 and then imported into Matlab 2014a. A perceptual experiment was conducted to determine whether young generations can distinguish between different degrees of rounded vowel /a/. The experiment was implemented using E-prime 3.0, and the 24 sounds recorded by the four individuals mentioned earlier were played randomly in three sets. A total of 1,800 valid data points were collected during the experiment. Finally, all data were analyzed using Excel 2010.

The study compared video recordings of four native Zouping speakers and found that rounded degree variation may occur in different generations and genders. An acoustic experiment indicated a decreasing tendency in the rounded degree of vowel /a/

across different social groups, including gender and age. The study also found that this shift appeared to be influenced by the Standard Mandarin vowel /a/. According to the perceptual results, both sounds were recognized as having the same meaning, indicating no significant difference in meaning despite varying degrees of centralization. The study provided a detailed explanation of various social factors, considering that the variation in the rounded degree of the Zouping vowel [a] is natural but complex.

It came to the conclusion that rounded degree variance is related to age and gender and can be impacted by a number of variables such as exposure to Standard Mandarin, social and cultural background. It is possible to formulate effective conservation strategies with a scientific basis based on this observation, which is of enormous value for understanding the trend and process of dialect variation. Nevertheless, the relationship between these variables and how the variance affects the Zouping dialect's overall phonological system is not examined in this work.

Key words: Zouping dialect, vowel variation, rounded degree, complexity theory

Yao Lu
Peking University

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Acoustic and Perceptual Studies on the Zaiwa Tones

The Zaiwa language, a Sino-Tibetan language, is used by the Zaiwa branch of the Jingpo ethnic group. According to our acoustic and perceptual studies, we posit that the tonal system of Zaiwa should be described as follows: Zaiwa has six tone patterns, comprising two level tones, one rising tone, and three falling tones, with the tone values of 55, 44, 35, 51, 31, and 21, respectively. Among these, tones 31 and 55 are checked tones, characterized by a stop coda of /p, t, k, ʔ/, while tones 21, 44, and 35 are unchecked tones. The occurrence of the rising tone 35 is conditional, requiring the consonant to be unaspirated plosives and affricates, nasals, lateral approximants, and approximants, and the vowel to be in a non-constricted voice. In contrast, the vowels in other tones can be in either a non-constricted or constricted voice.

Keywords: Zaiwa language, phonation types, acoustic analysis, tone perception

Paper presented at the 57th ICSTLL, Peking University, 25-27 October, 2024

Yongxian Luo
The University of Melbourne

Taste in Zhuang

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There has been a deep-rooted consensus about four basic tastes, *sweet*, *bitter*, *sour* and *salty*, which goes back to Aristotle's writings. This four-way classification was expanded with the discovery of *umami* (or savoury) in early 20th century, a taste that wasn't fully scientifically recognized until the mid-1980s. Work on this area of human cognition from various fields has advanced our understanding of the mechanism of taste. However, linguistic work on this particular aspect of human perception is lacking. Questions remain to be answered as to the size of the vocabulary of basic tastes, whether the distinction between taste and smell can be clearly drawn, and how language can reflect the organization of the taste domain.

This paper proposes to look at basic taste terms in Zhuang, a Kam-Tai language of the Tai-Kadai stock. It will be demonstrated that the inventory of tastes in Zhuang does not fully match the currently accepted 5-way classification. Just as basic colour terms may differ from language to language, so taste terms in Zhuang exhibit characteristics of their own. Three terms, *waan*^{1} (*sweet*), *hom*^{1} (*good smell*), and *hou*^{1} (*bad smell*), play a particularly crucial role in constructing the taste and olfaction domains, indicating their intimate relationships, which is amply manifested through cross-modality characterization of taste and olfaction.

Key words: basic taste terms, taste and olfaction, Zhuang, Tai

Xiling Ma and Huiye Zhang
Yunnan Minzu University

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历时视角看布央语和印尼语的语音演化

A Diachronic Perspective on the Phonetic Evolution of Buyang and Indonesian

摘要：本文以布央语和印尼语为研究对象展开语音对比分析。尽管布央语和印尼语语言类型不同，但二者在身体词汇、数词及人称代词等方面存在大量关系词，相较以往侗台语单音节语素与印尼语的音节对应情况，保留前置音节较多的布央语郎架话增加了与印尼语的对应类型。因此本文在南岛语和侗台语历史比较研究的背景下探讨原始南岛语各音类在布央语和印尼语中的演化规律，对比两个现代语言的语音演化模式，揭示布央语不同于其它侗台语族语言的演变路径。研究显示，布央语和印尼语因其语言类型及音系特点的差异，对原始南岛语各音类的继承、演化既表现出相似性，又显示出独特性。

关键词：南岛语；布央语；印尼语；语音演化

Abstract：This paper conducts a comparative analysis of phonetic between the Buyang language and Indonesian, taking them as the research objects. Despite their different language types, both Buyang and Indonesian share numerous cognates in terms of body words, numerals, and personal pronouns,compared with the previous study of the single syllable morphemes of Kam-Tai languages corresponding to the syllables of Indonesian, the Langjia dialect, which retains more presyllables, has increased the corresponding type of Indonesian.Therefore,this study explores the phonetic evolution rules of proto-Austronesian in Buyang and Indonesian within the context of historical comparative studies on Austronesian and Kam-Tai languages. Additionally, it compares the phonetic evolution patterns observed in these two modern languages. By doing so, this paper unveils the unique evolutionary path taken by Buyang language among other Kam-Tai languages. Due to differences in linguistic type and phonological system characteristics, Buyang language and Indonesian not only exhibit similarities but also display unique aspects in terms of inheritance and evolution within these phonological classes pertaining to proto Austronesian.

Keywords:Austronesian;The Buyang language;Indonesian;Phonetic evolution

一、布央语和印尼语的渊源

印度尼西亚语，简称印尼语，系属南岛语系（狭义也称马来-波利尼西亚语系）西部马来-波利尼西亚语支，是印度尼西亚的官方语言[①]。今印尼语是在原始马来语的基础上发展起来的，其发展经历了原始马来语、古马来语、中期马来语、马来“混合语”、印尼语五个阶段。可以说，今印度尼西亚语和马来西亚语是在马来“混合语”时期各自在不同地域独立形成的，他们拥有共同的原始语，二者之间的关系如同泰语和老挝语一样。

广义的马来语指的是马来人所说的语言，南岛语的起源和扩散与马来人的迁移息息相关。印尼学界将到达印尼的马来人分为原始马来人和续至马来人两批，原始马来人在公元前 1500 年左右从中国云南一带迁至印度支那、马来半岛、印尼等地，续至马来人约在公元前 200-300 年间到达印尼[②]。人类学家林惠祥（1981）认为百越民族可能是留居中国大陆的原始马来人[③]。历史学方面的一些论证也认为马来人和中国南方的古老民族群体有渊源关系。何平（2006）认为原始马来人可能与除“越”之外的另一个古老群体“濮”有共同的祖先，他们的起源地很可能就是云南或西南广大地区。续至马来人与“越”的祖先有密切联系，二者的共同祖先应叫做“前越人”[④]。史前时期有限的历史文献给了我们足够的思考空间。

目前的研究成果表明，南岛语的扩散（也即马来人的迁徙）不是单向的，而是多向性的，即存在东、西两个扩散方向。东支向东迁移至中国台湾，经菲律宾、印尼等到达大洋洲，中国台湾仅代表了南岛语向太平洋岛屿迁移的起点；西支经过越南、马来半岛至印尼东部[⑤]。位于越南的南岛语系占语支语言的存在很好地证明了西支这一迁移路线。越南走廊作为马来人迁移过程中一个重要的落脚点，越南的占语和马来语之间的关系十分紧密。可以说，占语是马来人西迁路线中一种重要的马来语，也是南岛语在中南半岛地区发展的独特类型。

本文的另一研究对象是布央语。布央语系属汉藏语系侗台语族仡央语支，同语支语言还有仡佬语、拉基语、普标语及位于越南的拉哈语、恩语等，是新近发现的侗台语族语言[⑥]。

据李锦芳（2000）研究，布央人可能是来自广东、福建沿海一带的一支百越遗裔，溯珠江水系西迁，途径贵州、广西、云南等地，近 100-300 年间到达今居住地滇桂一带[⑦]。今中国境内的布央语主要分布在云南省富宁、广南两县和广西

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① 马习聆,张会叶. 从布央语的前置音节认识南岛语与侗台语的关系[J]. 百色学院学报，2023:49.

② 孔远志. 印度尼西亚语发展史[M]. 北京：北京大学出版社，1992:6-7.

③ 林惠祥. 林惠祥人类学论著[M]. 福州：福建人民出版社，1981:296-298.

④ 何平. 南岛语民族与中国古代越人和濮人的关系[J]. 贵州民族研究，2006:177-178.

⑤ 范志泉,邓晓华,王传超. 语言与基因:论南岛语族的起源与扩散[J]. 学术月刊，2018:184.

⑥ 马习聆,张会叶. 从布央语的前置音节认识南岛语与侗台语的关系[J]. 百色学院学报，2023:49.

⑦ 李锦芳. 布央语研究[M]. 北京：中央民族大学出版社，2000:4-11.

的那坡县，富宁县和那坡县互为毗邻。布央语内部方言土语可以分为东、西两支，东支分布在富宁郎架、峨村等地以及那坡县，西支以巴哈为代表集中在广南县。艾杰瑞等（2011）用 Split Tree 4.0 分析仡央语群的进化历史时，将仡央语分为东西两支，西支为仡佬-拉基，东支拉哈-巴哈-普标-布央[①]。李锦芳等（2015）曾论述过越南在以贵州为起点形成的一条南北走向的民族及语言走廊中的重要作用，这个走廊也称为“中越语言走廊”[②]。拉基、普标、布央等仡央语言在国内几乎濒危，在越南一侧却传承尚好。“中越语言走廊”上语言的深度挖掘和研究对解决东南亚移民的问题起重要作用。越南除了是仡央语群语言境外主要分布地以外，还是南岛语系占语支语言的主要分布地，占语也是呈中越跨境分布的语言，在国内的是海南回辉话。

印尼语与布央语的渊源主要体现在两方面。首先是二者拥有相似的迁移路线和方向；布央语除了分布在中国云南、广西外，越南拉哈语、恩语与布央语关系较近，是较早从中国迁出去的一批布央人[③]。仡央人的分离和迁移要比其它侗台民族早得多，路线和方向与南岛语西支迁移路线相似。其次是相比单音节化程度较高的台语，仡央语词汇组成较复杂，保留部分含前置音节的词，尤其是布央语，这一点和占语有点相似。

马习聆等（2023）研究认为布央语含前置音节的词搭建起了多音节的南岛语和单音节的侗台语之间的桥梁，正如占语搭建了多音节南岛语和单音节回辉话之间的桥梁。那如果我们能够用原始仡央语去和原始南岛语相比的话，是否更加容易看清二者之间的关系？但目前的构拟形式不适合看做布央语的原始语去探讨其语音演化，尤其是郎架话，主要有以下两个原因：

首先，现有的原始侗台语构拟形式未考虑仡央语的情况。相比起内部对应较整齐的台语支和侗水语支语言来说，仡央语支语言内部相对松散，即使在仡央语和其它语支语言同源词百分比很低的情况下还将其划入侗台语族内，因为我们暂时无法证明原始仡央语是与原始侗台语完全不一样的两种语言[④]。仡央语言因语言内部较松散以及表现出独立于其它侗台语支语言的发展特点，未参与原始侗台语的构拟，游离于各侗台语支语言边缘。上个世纪中期，本尼迪克特（1942）一文提到仡佬语和拉基语有丰富的前加成分且部分前加成分存在对应关系[⑤]，这里的前加成分指的是前置音节。

其次，现有的原始仡央语的构拟形式未考虑布央语的前置音节。国外学者许

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① 艾杰瑞, 莫海文. 仡央语分类补议[J]. 广西民族大学学报(哲学社会科学版)，2011:11-13.
② 李锦芳, 艾杰瑞. 中越语言走廊述补[J]. 百色学院学报，2015:31-32.
③ 李锦芳. 越南拉哈语与仡央诸语言的初步比较[J]. 语言研究，1999:178-179.
④ 梁敏. 仡央语群的系属问题[J]. 民族语文，1990，(06):7.
⑤ 中国社会科学院民族研究所语言研究室. 汉藏语系语言学论文选译[C]. 北京：中国社会科学院民族研究所语言研究室，1980:45.

家平（2000）构拟了原始仡央语（proto Kra）形式，他所假设的音节结构并没有局限于带复杂辅音丛的单音节结构，可供本文借鉴，但他使用的布央语构拟材料为峨村话[①]，且峨村话语料基本都是单音节语素，忽略了前置音节ʔaᵒ-、maᵒ-，正如第二章所论述的，布央语中的前置音节不是构词虚语素，应是原始语音节的一部分，在下文印尼语和布央语的 71 个关键词中，列出了原始南岛语和原始仡央语的形式，我们可以清晰地看出，部分原始仡央语的构拟形式并不能很好地解释郎架话[②]含前置音节的关系词，而原始南岛语的多音节形式能更好地与这部分词对应。因此，本文将多音节的原始南岛语看做布央语演化的原始语。

印尼语作为现代南岛语的典型代表之一，词根词仍以双音节为主，无声调。本章将云南文山布央语（主要涉及三地方言土语郎架话、峨村话和巴哈话，其中以保留前置音节较多的郎架话为主）作为另一个研究对象，对比从原始南岛语分别发展至两个现代语言印尼语和布央语可能经历的语音演化路径。

二、布央语和印尼语的关系词

（一）关系词判断标准

在以往所用来比较的词汇存在的问题主要有：原始南岛语构拟尚不成熟，涉及比较的南岛语言可能是跨语族、语支的，不能正确判定这些现代语言用来比较的词汇是否继承自原始南岛语形式，亦或是发生了创新导致“偶然相似”；其次是部分语音对应规律只是简单的词汇罗列比较，所比较词汇的选择也不是那么严格，缺乏对语言演化路径的解释、分析。

因此，本次参与比较的词汇是以往南岛语与侗台语历史比较研究中经过检验后的“合格关系词”，又新增一些以前未被用过的关系词，例如斯瓦迪斯一百核心词具有较强的普适性，只包含数词“一”和“二”，但是在布央语和印尼语的语音对应中，我们发现布央语数字一到十与原始南岛语均整齐对应，虽然印尼语数字“七”“八”“九”有创新，但其余数字也是对应的。吴安其（2004）论证了部分中国台湾南岛语和大洋洲南岛语中保留了早期社会非十进位的数词的残余，五以上的数字采用倍数或者加减法来表示，说明南岛语的十进位数词是后起的[③]。布央语数词与原始南岛语的对应如下表所示：

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① 引自 Ostapirat, Weera. 2000. Proto-Kra. Linguistics of the Tibeto-Burman Area 23.1:40-42.原文为“Among these,the speech used at the Langjia location is considered by the Buyang speakers as most different from the others...Material on the representative variety in this study is collected from the E-Cun location”

② 笔者在郎架村调查时，发音人曾表示峨村话不是正宗布央语，峨村讲布央语的人最初是从郎架迁过去的，峨村人迁到峨村后与当地壮族居住在一起，语言受到影响，郎架村则相对封闭一些，布央语更纯正。

③ 吴安其. 中国台湾原住民的语言及其历史——兼论南岛语数词反映的南岛语史[J]. 世界民族，2004, (05): 77.

词义	PAN	PMP	PC[①]	印尼语	郎架	峨村	巴哈	PKra
一	*isa	*esa	*sa	satu	am^{24}	pi^{53}	tsam^{45},ti^{55}	*tʂəmC
二	*duSa	*duha	*dua	dua	ɕa^{54}	ɵa^{24}	θa^{322}	*saA
三	*təlu	*telu	*klɔw	tiga	tu^{54}	tu^{24}	tu^{322}	*tuA
四	*səpat	*epat	*pa:t	əmpat	pa^{54}	pa^{24}	pa^{322}	*pəA
五	*lima	*lima	*lima	lima	ma^{312}	ma^{33}	mạ^{33}	*r-maA
六	*ənəm	*enem	*nam	ənam	nam^{54}	nam^{24}	nam^{31}	*x-nəmA
七	*pitu	*pitu	*tujuh	tujuh	tu^{312}	tu^{33}	ru^{33}	*C-tjuA
八	*walu	*walu	*dua-lapan	dəlapan	ma^{0}ðu^{312}	ma^{0}ðu^{33}	mu^{31}	*m-ruA
九	*siwa	*siwa	*sa-lapan	səmbilan	va^{11}	va^{55}	dɦa^{31}	*s-ɣwaB
十	*puluq	*puluq	*pluh	puluh	put^{54}	put^{55}	vat^{55}	*pwlotD

印尼语数字“七”tujuh 的形式不能追溯到原始马来-波利尼西亚语时期，而是来自于数手指时第二个手的食指一词的形式；而“八”和“九”是由“十”减“二”和“一”得到的。原始仡央语（PKra）[②]构拟的数字一至四、十的单音节形式分别对应原始南岛语的首、末音节，五到九构拟了带前置音节的形式也与原始南岛语的双音节形式对应。

如今仡央语和黎语还保留着南岛语的十进位数词，这两个语支语言又是最早脱离侗台语“母体”的，那究竟是仡央语、黎语在大陆南岛人全部迁离大陆之前和已经发展了十进制的南岛语密切接触产生的，还是仡央语、黎语和大陆南岛语同源发展了十进制，又因较早脱离“侗台母体”而未受其它语言影响保留了十进制呢？如果只看数词的话，我们不能轻易肯定其中一种猜测，但如果再看其它基本核心词的话，就不能只简单说布央语这些基本词汇包括数词是与南岛语接触留下的底层，就该思考其本质到底什么了。布央语数词与原始南岛语整齐对应进一步说明南岛人在全部迁离中国大陆之前已经发展了十进制数词。

为此在选择关系词时遵循以下两个原则：

1、选择语音上相同或相近，语义上相同或有联系的词；

造成语音上对应可能的原因有三个，分别是同源、区域特征或偶然相似，所以一定是形成严格的、成系统的语音对应关系才能尽可能排除因区域特征或偶然相似而被纳入比较带来的错误。另外，语义上有联系的词也需要注意，语义演化可能会引起语义的扩大、缩小甚至是转移，语义演化的方向具有具体＞抽象、可视＞不可视、局部＞整体、专指＞泛称、客观＞主观等[③]，例如可视＞不可视指的是用相对可视的事物来指称相对来说不可视的事物，这一演化方向对于身体部

[①] 原始占语（Proto Chamic）来源于 Thurgood, Graham. From Ancient Cham to Modern Dialects:Two Thousand Years of Language Contact and Change[M]. Honolulu:University of Hawai’i Press，1999.

[②] 原始仡央语（Proto Kra）语料来自于 Ostapirat, Weera. 2000. Proto-Kra. Linguistics of the Tibeto-Burman Area 23.1:1-251.

[③] 陈忠敏. 历史比较语言学[M]. 上海：中西书局，2022:122-130.

位词语义演化很有说服力，请看下面例子：

词义	PAN	PMP	印尼语	郎架	峨村
睾丸	*batux	*qateluR	pelir	qa^{0}tam^{54}ma^{0}tɛŋ^{11}	qa^{0}tam^{24}li:t^{55}
蛋	-	*qateluR	telur	qa^{0}tam^{54}	tam^{24}
胃	*biCuka	*kempuŋ	lambuŋ	qa^{0}luŋ^{54}	luŋ^{24}

“睾丸”一词，原始南岛语*batux 演化至印尼语是 batu，词义是石头，而原始马来-波利尼西亚语构拟的为*qateluR“（鸡）蛋”，郎架的“睾丸”这一抽象语义的认知是通过 qa^{0}tam^{54} “蛋”和 ma^{0}tɛŋ^{11}“黄瓜”这两个可视的词复合构成的，峨村则是由 tam^{24}“蛋”和 li:t^{55}“男性生殖器”这两个词复合构成的。“胃”一词，郎架话和峨村话与原始马来-波利尼西亚语同源，印尼语 lambuŋ除了“胃”的含义外，还指“船”，演化方向船＞胃，相似的功能都是用来装载食物。

另一个需要注意的例子是月和月亮、天和日子这一类多义词包含多个义项的问题，这些义项之间一般是有联系的，请看下列例子：

词义	PAN	印尼语	郎架	峨村	巴哈
天	*laŋiC	laŋit	ɓun^{54}	ɓun^{24}	pa^{33}mui^{322}
（一）天	*waRi	hari	van^{54}	vən^{24}	van^{33}
月亮	*bulaN	bulan	luŋ^{11}tɛn^{11}	ʔa:ŋ^{33}ti:n^{11}	na:n^{33}ke^{55}
月	*bulaN	bulan	ɗa:n^{31}	ɗa:n^{24}	na:n^{322}

从上述例子可以看出，印尼语和布央语在表示天空和日子时所用的“天”都不一样，而“月亮”和“月”在南岛语中是相同的，而在布央语中不同。

另外，布央语 la^{0}muk^{11}一词表示的义项有雾、灰尘，“云”la^{0}muk^{11}ɓun^{54}由雾和天二词复合而得。这些例子告诉我们要注意多个义项之间的联系。

2、选择在原始南岛-侗台语群体分化之前的历史背景下的词；

判定关系词的另一个原则是要符合被比较语言群体所在的历史背景，也就是只能选择在原始南岛-侗台语群体分化之前共有的词。

陈保亚（2000）指出汉语和侗台语史前时期经历了由相对独立到接触的过程，猪、狗的最晚出现时间公元前 5000 年左右也就是二者最早接触时间[①]。判定的依据是的六畜词中出现较早的猪和狗在汉语、侗台语间不对应，但在各自语族语言内部对应整齐，出现较晚的鸡、马二词在汉语和平行发展的侗台语支语言相对应，黎语支处于独立发展，由此可以说明猪、狗是侗台语与汉语接触前独立发展的，而鸡、马是接触后共同发展的。

那侗台语独立发展的猪与南岛语对应的话，是否可以说明侗台语独立发展时

[①] 陈保亚. 汉越(侗台黎)六畜词文化有阶分析[J]. 民族语文，2000,(04):37.

期南岛人的存在呢？请看下面例子：

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
鸟	*qayam	*manuk	burʊŋ	maᵒnuk¹¹	maᵒðe¹¹	nok¹¹
鸡	-	*qayam	ayam	qai⁵⁴	ʔai²⁴	qai³²²
猪	*babuy	-	babi	mu⁵⁴	mu²⁴	mu̥³¹

“鸟”一词在中国台湾南岛语中构拟为*qayam，在马来-波利尼西亚语中构拟为*manuk，中国台湾南岛语向太平洋迁移后，*qayam 没有取代*manuk，在少部分语言中还保留了“鸟”的语义，在西部马来-波利尼西亚语支中（包括印尼语）语义转变为“驯养的家禽（鸡）”。 沙加尔（2004）提到“鸟”*manuk 最早出现在印尼苏门答腊省北部的巨港马来语（Musi language）中,更早的来源还不清楚，这种语言很可能就是马来-波利尼西亚语的祖语[①]。那继续追溯至布央语以及侗台语中“鸟”的语音形式，是否可以说明马来-波里尼西亚语的*manuk 形式来自中国？这也印证了南岛人分东、西两支从中国岭南地区向东南亚海岛地区迁移的，东支先到中国台湾省再到菲律宾、印尼等地，西支经过云南、越南到达印尼北部、马来西亚地区。从“鸟”及“睾丸”一词的认知方式来看，布央语和马来-波利尼西亚语，即西支迁移方向上的南岛语关系更密切。猪、鸟两词都说明南岛语最早的来源可追溯至中国大陆南部沿海地区，中国台湾南岛语只是东支路线面向太平洋地区迁移的起点。

（二）关系词对应类型

按照上述提到的两条关系词判定标准，筛选出来的关系词涵盖天文地理、人物亲属、人体器官、动物、植物、方位时间、数量、代词、动词等多个分类条目，共计 71 个，现根据布央语与印尼语音节的对应类型分为两类：1、布央语单音节语素对应印尼语双音节的任一音节；2、布央语含前置音节的词对应印尼语双音节，见附录。

在布央语含前置音节的词对应印尼语双音节中，存在以下两个问题：

1、布央语三地方言土语之一与原始南岛语对应；

由于郎架、峨村、巴哈三地位置有一定间隔，尤其是巴哈，距离郎架和峨村较远，所以无可避免会与周边壮族接触和交流，导致语言的替换和融合，因此在界定关系词时，我们要关注个别特殊词，检查各方言土语对原始南岛语的音节继承情况。

[①] 转引自 Sagart, Laurent.2004.The higher phylogeny of Austronesian and the position of Tai-Kadai. Oceanic Linguistics:21-122.原文为“that *manuk first arose in Muish,from an unknown source.....”“Together,these two items argue for the existence of a language ancestral to Ketagalan and MP,which I call Muish.”

2、复合构词型、词缀构词型及含前置音节的关系词里包含不同源的语素；

“舌头”一词，峨村ʔeᵒme³³、巴哈 ma³¹来自原始南岛语*Sema，郎架 maᵒlɛn¹¹来自原始南岛语另一构拟形式*lidam，发展的过程中带上了前置音节 maᵒ-，在maᵒlɛn¹¹中，同源语素是 lɛn¹¹。

复合构词型的关系词里也可能包含不同源语素，例如，郎架话“鱼钩”ŋɔŋ³¹²ɓit⁵⁴这一复合由“嘴”ŋɔŋ³¹²和“鱼竿”ɓit⁵⁴两个语素构成，与原始南岛语*kabit 同源的是“鱼竿”ɓit⁵⁴这个语素，因此，这个词也因纳入到关系词中。

词缀型构词的“藤”一词，原始南岛语为*quay，郎架话 ma:kᵒqu⁵⁴和峨村话 ma:k⁵³ʔu²⁴均由前缀 ma:k-加同源语素构成，峨村发生 q＞ʔ，巴哈则为单音节ʐu²⁴。“肚脐”一词也是这样的情况。因此，我们要基于同源语素层面去展开比较，剔除不同源的语素。

三、原始南岛语辅音音类在布央语和印尼语中的演化

原始南岛语塞音、鼻音、流音和擦音四个音类在布央语和印尼语中的演化方式既有相似之处，又呈现出各自的个性发展。

（一）原始南岛语塞音在布央语和印尼语中的演化

1、原始南岛语辅音*b、*p 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
石头	*batux	*batu	batu	pja³¹²	--	pwa³²²
肩膀	*qabaRa	*qabaRa	bahu	qaᵒɓa¹¹	ʔaᵒɓa⁵⁵	ka¹¹maᵒma³³
十	*puluq	*puluq	puluh	put⁵⁴	put⁵⁵	--
四	*səpat	*epat	əmpat	pa⁵⁴	pa²⁴	pa³²²
糠	--	*qəpah	Malay hempa	taᵒpʰa¹¹	taᵒfa⁵⁵	--

印尼语中有 b、p 清浊对立的辅音，而布央语中有清辅音 p 和带前喉塞ʔ的辅音声母ɓ。从表中印尼语和布央语对原始南岛语辅音*b、*p 的继承情况来看，印尼 b、p 来自原始南岛语*b、*p；布央语 p 继承自原始南岛语的*p，原始南岛语*b 在布央语中演化为ɓ和发生浊音清化成为 p，例如“石头”和“肩膀”二词的声母 pj 和ɓ来自原始南岛语*b，巴哈的音节 maᵒ发生同部位塞音和鼻音的演化 b＞m。

综上，PAN*b、*p＞印尼语 b、p；PAN*b＞布央语ɓ、m、p，PAN*p＞布央语 p。

2、原始南岛语辅音*C、*t 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
屁	*qetut	*qetut	kəntut	qaᵒtut^{11}	ʔaᵒtut^{55}	rat^{55}
(鱼)钩	*kabit	--	Iban kabit	ŋɔŋ^{312}ɓit^{54}	--	--
中间	*teleŋ	*teŋaq	teŋah	taᵒlɔŋ^{11}	tam^{53}ti^{24}	ta^{33}teŋ^{45}

从以上例词看出，不管辅音*t 作音节首还是韵尾，到印尼语和布央语都为 t。

辅音*C 的演化情况则不同，见下表：

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
眼睛	*maCa	*mata	mata	maᵒta^{54}	maᵒta^{24}	maᵒda^{33}
头虱	*kuCa	*kutu	kutu	qaᵒtu^{54}	ʔaᵒtu^{24}	ru^{33}
苦	*paqiC	*paqit	pahit	qam^{54}	ʔam^{24}	qam^{322}
咬	*kaRaC	*kaRat	gigit	qaᵒðam^{11}	ʔaᵒðam^{11}	--

从“眼睛”、“头虱”二词可以看出，*-Ca 在印尼语和布央语中均演化为辅音 t，巴哈话保留了浊音 d。“苦”和“咬”当*-C 作韵尾时，印尼语中依旧整齐演化为 t，而布央语中演化为 m。

综上，PAN*C、*t＞印尼语 t；PAN*t＞布央语 t，PAN-*C-＞布央语 t、d，PAN-*C＞布央语 m。

3、原始始南岛语辅音*k 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
鸟	*manuk	*manuk	burʊŋ	maᵒnuk^{11}	maᵒðe^{11}	nok^{11}
孩子	*aNak	--	anaʔ	la:k^{11}	la:k^{53}	la:k^{11}va:u^{33}

原始南岛语的-*k 在布央语和印尼语中都得到了保留，PAN-*k＞印尼语、布央语-k。

4、原始始南岛语辅音*q 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
落下	*-tuq	--	jatuh	ta:k^{11}	--	pok^{11}
十	*puluq	*puluq	puluh	put^{54}	put^{55}	vat^{55}

印尼语音系中没有小舌音 q，从原始南岛语到印尼语发生*q＞h 的演化。布央语中 q 不仅可以做单音节词的声母，还是“一个半音节”词前置音节声母的主要音位，小舌音 q 在布央语音系中承担了很大的作用，除了直接继承自原始始南岛语的辅音*q 以外（1-9），还由原始南岛语其它塞音*d、*g、*k 发生发音部位归并而来（10-15），请看下表郎架话前置音节 qaᵒ-与原始南岛语、印尼语的音节对应：

序号	PAN	PMP	印尼语	郎架	峨村	巴哈
1	*qu-	*qu-	kə-	qaᵒ-	ʔaᵒ-	--
2	*-qe-	*-qe-	tu-	qaᵒ-	ʔaᵒ-	--

3	*qa-	*qa-	--	qaº-	ʔaº-	ka[11]-
4	--	*qa-	--	qaº-	qaº-	maº-
5	*qa-	--	ku-	qaº-	--	--
6	*qa-	*qa-	(h)a-	qaº-	maº-	--
7	--	*qa-	tə-	qaº-	--	--
8	*qu-	--	hi-	qaº-	--	--
9	*qe-	*qe-	kən-	qaº-	ʔaº-	--
10	*daS-	*dah-	da-	qaº-	ʔaº-	taº-
11	*gut-	*gut-	gi-	qaº-	ʔaº-	--
12	*ku-	*ku-	ku-	qaº-	ʔaº-	--
13	--	*kaŋ-	--	qaº-	ʔaº-	--
14	--	*ka-	ki-	qaº-	ʔa[33]-	ma[33]-
15	--	*ka-	ka-	qaº-	maº-	ma[33]-

除了*q＞h，原始南岛语*q 在印尼语中还演化为塞音 k、t。

综上，PAN*q＞印尼语 h、k、t；PAN*q、*d、*g、*k＞布央语 q。

（二）原始南岛语鼻音在布央语和印尼语中的演化

1、原始南岛语辅音*m、*ŋ在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
六	*ənəm	*enem	ənam	nam[54]	nam[24]	nam[31]
种植	*Canəm	*tanem	tanam	tam[24]	tam[32]	tam[45]
握紧	*kəmkəm	--	pegaŋ	kam[54]	kam[24]	--
黑	*dəmdəm	*qitem	hitam	ɗam[31]	ɗam[24]	l̥am[322]

在以上例词中，布央语单音节语素由原始南岛语脱落首音节，保留末音节演化而来，印尼语还是双音节形式。原始南岛语辅音*m 在印尼语和布央语中都保留了。再看一下郎架话前置音节 maº-与原始南岛语、印尼语的音节对应情况：

PAN	PMP	印尼语	郎架	峨村	巴哈
*ma-	*ma-	ma-	maº-	maº-	maº-
*ma-	*ma-	bu-	maº-	maº-	--
*bu-	*bu-	bu-	maº-	--	--

布央语辅音 m 除了来自原始南岛语*m，还由同部位塞音演化而来*b＞m。

综上，PAN*m、*b＞布央语 m；PAN*m＞印尼语 m。

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
鼻子	*ujuŋ	*ujuŋ	hiduŋ	qaºtiŋ[24]	ʔaºtiŋ[33]	ŋ̊at[33]
牙齿	--	*ijuŋ	--	qaºɕɔŋ[54]	ʔaºɵo:ŋ[24]	ʑoŋ[322]
老鹰	--	PWMP*kaŋkaŋ	elaŋ	qaºla:ŋ[11]	ʔaºla:ŋ[11]	ra:ŋ[11]

同样，原始南岛语辅音*ŋ也在印尼语和布央语中保留了，PAN*ŋ＞布央语、印尼语ŋ。

2、原始南岛语辅音*N、*n 在布央语和印尼语中的演化

词义	PAN	印尼语	郎架	峨村	巴哈
雨	*quzaN	hudʒan	ʑu:t^{11}	ʑu:t^{55}	ʑin^{31}
月	*bulaN	bulan	ɗa:n^{31}	ɗa:n^{24}	na:n^{322}
吃	*kaən	makan	ka:n^{54}	ka:n^{24}	ka:n^{54}

原始南岛语辅音*N、*n 在印尼语和布央语中演化为 n，“雨”一词，郎架和峨村发生同部位鼻音向塞音的演化 n > t。

综上，PAN*N、*n＞布央语、印尼语 n。

（三）原始南岛语流音在布央语和印尼语中的演化

1、原始南岛语辅音*l 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
头	*quluh	*qulu	kəpala	qa^{o}ðu^{11}	ʔa^{o}ðu^{11}	mau^{11}
八	*walu	*walu	--	ma^{o}ðu^{312}	ma^{o}ðu^{33}	mu^{31}
月	*bulaN	--	bulan	ɗa:n^{31}	ɗa:n^{24}	na:n^{322}
相似	*ləŋa	*leŋa	--	lom^{11}	lum^{11}	tshoŋ^{45}

从上述例词可以看出，原始南岛语辅音*l 在印尼语中还是 l，在布央语中，除了演化为 l 外，还演化为擦音ð。“头”和“八”二词，原始南岛语*l 在布央语中发生擦音化*l＞ð，“月”一词中发生*l＞d。

综上，PAN*l＞印尼语 l；PAN*l＞布央语ð、l、d。

2、原始南岛语辅音*R 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
天	*waRi	--	hari	van^{54}	vən^{24}	van^{33}
肩膀	*qabaRa	*qabaRa	bahu	qa^{o}ɓa^{11}	ʔa^{o}ɓa^{55}	ka^{11}ma^{o}ma^{33}
肥肉	*SimaR	*himaR	lemaʔ	ma^{o}nɛn^{312}	man^{33}	nan^{31}
咬	*kaRaC	*kaRat	gigit	qa^{o}ðam^{11}	ʔa^{o}ðam^{11}	ra:i^{33}

根据上述 71 个关系词找到 4 个原始南岛语含辅音*R 的例词及其在印尼语和布央语中的对应形式，发现原始南岛语辅音*R 在布央语中的对应辅音有鼻音 m 和 n、擦音ð，在印尼语中的对应辅音有擦音 h、塞音ʔ、t，均没有形成系统的对应。据卢勇斌（2019）研究，r 音变是一种规律性音变，内在机制有语音类推和语音同化两个基本对应规则，外在制约音素有自然条件、语言接触等[①]。也就是说，r 音类在经历平行发展的语言中会形成规律对应，对于较分散的语言来说，很难形成对应。

[①] 卢勇斌. 侗台语 r 音类研究[D]. 上海师范大学，2019:136.

（四）原始南岛语擦音*S 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
火	*Sapuy	*hapuy	api	pui^{54}	fi^{24}	pui^{322}
二	*duSa	*duha	dua	ɕa^{54}	ɵa^{24}	θa^{322}
胸膛	*daSdaS	*dahdah	dada	qa^{o}tak^{54}	ʔa^{o}tak^{55}	ta^{o}tak^{55}

原始南岛语辅音*S 到印尼语的演化路径为*S 演化为原始马来-波利尼西亚语的*h，到了现代印尼语 h 脱落。在布央语中，原始南岛语辅音*S 呈现无规律的演化。因此，PAN*l＞PMP*h＞印尼语 h 脱落。

四、原始南岛语元音音类在布央语和印尼语中的演化

原始南岛语有 4 个基本元音*a、*i、*u、*ə，可出现在多音节中的任一音节，3 个双元音*ay、*uy、*aw 仅限于末音节。在与孟高棉语的接触中，占语发展了重音后移模式，相比于南岛语音节四元音平衡的格局，占语前置音节保留了四元音平衡的格局，主音节从四元音扩展到大概十八个元音。

前面提到郎架话前置音节元音只保留了 a，低元音 a 有央化的趋势。因此本部分元音对应只考虑主音节和单音节里的元音。

（一）单元音

1、原始南岛语*a 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
二	*duSa	*duha	dua	ɕa^{54}	ɵa^{24}	θa^{322}
五	*lima	*lima	lima	ma^{312}	ma^{33}	m̥a^{33}
花	*buŋa	*buŋa	buŋa	ma^{o}ŋa^{11}	va^{24}	va^{322}

原始南岛语*a 在布央语和印尼语中还是 a，PAN*a＞印尼语、布央语 a。

2、原始南岛语*i 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
这	*i-ni	--	ini	ni^{11}	ni^{33}	ni^{55}

“这”一词，原始南岛语*i 在布央语和印尼语中都是 i，但仅有一词没有构成系统的对应，因此原始南岛语*i 在布央语和印尼语中的演化规律还有待验证。

3、原始南岛语*u 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
我	*aku	--	aku	ku^{54}	ku^{24}	ku^{322}
草木灰	*qabu	*qabu	(h)abu	qa^{o}tu^{11}	ma^{o}tu^{55}	du^{33}
七	*pitu	*pitu	--	tu^{312}	tu^{33}	ru^{33}

原始南岛语*u 在布央语和印尼语中还是 u，PAN*u＞印尼语、布央语 u。

4、原始南岛语*ə在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
黑	*dəmdəm	--	hitam	ɗam^{31}	ɗam^{24}	l̥am^{322}
种植	*Canəm	--	tanam	tam^{24}	tam^{32}	tam^{45}
握紧	*kəmkəm	--	pəgaŋ	kam^{54}	kam^{24}	ʐak^{55}

从上述三个关系词可以看出，原始南岛语*ə在布央语和印尼语中的演化规律一样，均演化为低元音 a。PAN*ə＞印尼语、布央语 a。

（二）双元音

1、原始南岛语*ay、*uy 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
死	*m-aCay	*ma-atay	mati	la:m^{312}	la:m^{33}	--
心脏	--	*hatay	hati	ɵam^{24}tou^{11}	ɵam^{24}	--
脚	--	*qaqay	kaki	--	--	kok^{55}
火	*Sapuy	*hapuy	api	pui^{54}	fi^{24}	pui^{322}
猪		*babuy	babi	mu^{54}	mu$^{2\ 4}$	mu̥$^{3\ 1}$

在“死”和“心脏”二词中，原始南岛语双元音*ay 在布央语中演化为 am，演化路径可能为*ay＞*ai＞am；“火”一词，原始南岛语*uy 在布央语郎架话和巴哈话中为 ui，峨村话中演化为单元音 i。在布央语东支的恩语[①]、郎架话和雅郎话内部，“火”和“树”二词形成元音 i、ui、ai 的对立。

词义	恩语	郎架	雅郎	峨村	巴哈
火	pi^{243}	pui^{54}	pai^{53}	fi^{24}	pui^{322}
树	ti^{243}	qa^{0}tui^{54}	tai^{53}	hot^{55}	ma^{0}ti^{33}

原始南岛语*ay、*uy 在印尼语中均演化为单元音 i。

综上，PAN*ay、*uy＞印尼语 i；PAN*ay＞布央语 am。

2、原始南岛语*aw 在布央语和印尼语中的演化

词义	PAN	PMP	印尼语	郎架	峨村	巴哈
影子	*liŋaw	--	bajaŋ	--	ʔe^{0}ŋau^{33}	ŋau^{45}

在“影子”一词中，原始南岛语*aw 在布央语峨村话和巴哈话演化为 au，但仅有一词没有构成系统的对应，因此原始南岛语*aw 在布央语中的演化规律还有待挖掘更多的关系词进行验证。

五、小结

本文首先提出了两条适合南岛语与侗台语历史比较研究的关系词判断标准，

[①] 恩语、雅郎话语料来源于李锦芳，艾杰瑞．越南恩语和布央语的初步比较[J]．语言研究，2006, (02): 121-122.

即（1）选择语音上相同或相近，语义上相同或有联系的词；（2）选择在原始南岛-侗台语群体分化之前的历史背景下的词，然后根据关系词将布央语与印尼语语对应类型分为布央语单音节语素对应印尼语双音节的任一音节、布央语含前置音节的词对应印尼语双音节两类，紧接着对比占语单音节化的三条演化路径考察了布央语单音节化的主要途径，即音节脱落，最后研究了原始南岛语在布央语和印尼语中的语音演化规律。

原始南岛语各音类在布央语和印尼语中的演化规律是本文的重点内容，演化规律如下表所示：

	PAN	印尼语	布央语
塞音	*b	b	ɓ、m、p
	*p	p	p
	*C	t	-*C-＞t、d；-*C＞m
	*t	t	t
	*k	k	k
	*q	h、k、t	q
鼻音	*m、*ŋ	m、ŋ	m、ŋ
	*N、*n	n	n
流音	*l	l	ð、l、d
	*R	--	--
擦音	*S	h	--
单元音	*a	a	a
	*i	--	--
	*u	u	u
	*ə	a	a
双元音	*ay、*uy	i	*ay＞am
	*aw	--	--

布央语和印尼语对原始南岛语各音类的继承、演化具有如下特点：

1、塞音部分，印尼语基本继承了原始南岛语各音类，而布央语除了继承原塞音外，还发生塞音*b 和*C 向鼻音的演化，*C 做中间辅音时演化为 t、d，*C 作韵尾时则演化为鼻音 m。由于印尼语和布央语二者音系的差异表现出对原始南岛语*q 的处理也不同，印尼语无辅音 q，原始南岛语*q 在印尼语中演化为塞音 k、t 和擦音 h，而布央语中的小舌音 q 除了继承自原始南岛语*q 以外，还由原始南岛语其它塞音*d、*g、*k 归并而来。

2、鼻音部分，印尼语和布央语基本继承了原始南岛语的*m、*ŋ、*N、*n。

3、流音和擦音情况相对复杂一点，*l、*S 在印尼语中的演化尚有规律可寻，PAN*l＞ð、l、d，PAN*S＞h，但布央语在现有的关系词中流音和擦音没有形成系统的对应规律。

4、元音部分，原始南岛语*a、*ə在印尼语和布央语中均演化为低元音 a，*u 还是演化为 u，双元音*ay、*uy 到印尼语中演化为单元音 i，到了布央语，发生*ay＞am 的演化，原始南岛语*i 和*aw 在印尼语和布央语现有的关系词中没有形成系统的对应规律。

在侗台语族中，仡央语支和黎语支因其结构形式的多样性和存古性以及系属分类上的独立性表现出与平行发展的侗水、台语支不同的性质，同时仡央语支又因其向越南迁移的路线与南岛语西支迁移路线相似而展现出极高的研究价值，多位学者的观点认为仡央语是存古型侗台语，在南岛语和侗台语的历史比较研究中拥有非常重要的地位。两个现代语言布央语和印尼语虽是不同的语言类型，但在历史比较研究中，展现出很多可比性。总体来看，不管是“鸟”一词的演化方式、数词的对应还是对身体部位的认知方式，布央语这一支百越遗裔与西迁方向这一支南岛语群体的关系更为密切一些。

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附录 布央语与印尼语的关系词

词义	PAN	PKra	印尼语	郎架	峨村	巴哈
天	*waRi	*(h)wənA	hari	van^{54}	vən^{24}	van^{33}
阳光	*qajaw	*t-laŋ	sinar	qa:ŋ^{54}	łəŋ^{31}(Y)	qa:ŋ^{322}
月	*bulaN	*m-djanA	bulan	ɗa:n^{31}	ɗa:n^{24}	na:n^{322}
雨	*quzaN	*jəlA	hudʒan	ʑu:t^{11}	ʑu:t^{55}	ʑin^{31}
水	*daNum	*ʔuŋC	air	ɔŋ^{24}	ʔo:ŋ^{32}	oŋ^{45}
火	*Sapuy	*puiA	api	pui^{54}	fi^{24}	pui^{322}
石头	*batux	*p-raA	batu	pja^{312}	ma^{0}ða^{33}	pwa^{322}

一	*isa	*tʂəmC	satu	am^{24}	pi^{53}	tsam^{45},ti^{55}
二	*duSa	*saA	dua	ɕa^{54}	ɵa^{24}	θa^{322}
三	*təlu	*tuA	tiga	tu^{54}	tu^{24}	tu^{322}
四	*səpat	*pəA	əmpat	pa^{54}	pa^{24}	pa^{322}
五	*lima	*r-maA	lima	ma^{312}	ma^{33}	m̥a^{33}
六	*ənəm	*x-nəmA	ənam	nam^{54}	nam^{24}	nam^{31}
七	*pitu	*C-tjuA	tujuh	tu^{312}	tu^{33}	ru^{33}
九	*siwa	*s-ɣwaB	səmbilan	va^{11}	va^{55}	dɦa^{31}
十	*puluq	*pwlotD	puluh	put^{54}	put^{55}	vat^{55}
这	*i-ni	*ʔ-niC/B	ini	ni^{11}	ni^{33}	ni^{55}
你	*kamu	*məA/B	kamu	ma^{312}	ma^{33}	mə^{31}
我	*aku	*kuA	aku	ku^{54}	ku^{24}	ku^{322}
孩子	*aNak	*lakD	anaʔ	la:k^{11}	la:k^{53}	la:k^{11}va:u^{33}
祖母	*aya	*jaC	nenɛʔ	ŋɔk^{11}iŋ^{24}	ʑa^{32}	tsa:u^{322}
祖父	*əmpu	*m-pauB	kakɛʔ	ŋɔk^{11}ɕɛ^{54}	pu^{55}	tsa:i^{322}
死	*m-aCay	*pɣonA	mati	la:m^{312}	la:m^{33}	pwan^{33}
心脏	PMP*hatay	*hlulC	hati	ɵam^{24}tou^{11}	ɵam^{24}	mou^{11}lin^{45}
吃	*kaən	*kanA	makan	ka:n^{54}	ka:n^{24}	ka:n^{54}
落下	*-tuq	*tokD	ʤatuh	ta:k^{11}	--	pok^{11}
种植	*Canəm	--	tanam	tam^{24}	tam^{32}	tam^{45}
来；到	*um-aRi	*m-duŋA	dataŋ	ma^{54}	ɗɔŋ^{24}	no^{31}
哭	*Caŋis	*ŋ̥itD	naŋis	ŋ̥i:t^{11}	ŋ̥i:t^{53}	ŋ̥it^{11}
借	*Səzam	--	pindah	kam^{11}	ɕe^{55}	ɣui^{33}
握紧	*kəmkəm	--	pəgaŋ	kam^{54}	kam^{24}	ʑak^{55}
相似	*ləŋa	--	sama	lom^{11}	lum^{11}	tshoŋ^{45}
屎	*Caqi	*ʔikD	beraʔ	ɛk^{11}	ʑak^{55}	qe^{33}
手	*qalima	*mjaA	taŋan	ŋɛk^{11}	ŋ̥iak^{55}	qe^{322}
船	*aluja	*daA	kapal	luə^{11}	--	da^{322}
苦	*paqiC	*kəmA	pahit	qam^{54}	ʔam^{24}	qam^{322}
黑	*dəmdəm	*hl/dəmA	hitam	ɗam^{31}	ɗam^{24}	l̥am^{322}

词义	PAN	PKra	印尼语	郎架	峨村	巴哈
头	*quluh	*kraiB	kəpala	qa^{0}ðu^{11}	ʔa^{0}ðu^{11}	mau^{11}
骨头	*CuqelaN	*dəkD	tulaŋ	qa^{0}ɗa:k^{31}	ʔa^{0}la^{11}	daŋ^{322}qho^{33}

胸膛	*daSdaS	*təkD	dada	qaᵒtak⁵⁴	ʔaᵒtak⁵⁵	taᵒtak⁵⁵
鼻子	*ujuŋ	*teŋC	hiduŋ	qaᵒtiŋ²⁴	ʔaᵒtiŋ³³	ŋ̟at³³
牙齿	PMP*ijuŋ	*C-tʃuŋC	gigi	qaᵒɕɔŋ⁵⁴	ʔaᵒɵo:ŋ²⁴	ʑoŋ³²²
肩膀	*qabaRa	*m-baB	bahu	qaᵒɓa¹¹	ʔaᵒɓa⁵⁵	ka¹¹maᵒma³³
睾丸	PMP*qateluR	--	pelir	qaᵒtam⁵⁴maᵒtɛŋ¹¹	qaᵒtam²⁴li:t⁵⁵	maᵒrum³²²ra³²²
眼睛	*maCa	*m-ʈaA	mata	maᵒta⁵⁴	maᵒta²⁴	maᵒda³³
舌头	*lidam/*Sema	*l-maA	lidah	maᵒlɛn¹¹	ʔeᵒme³³	ma³¹
小腿	PMP*bities	--	betis	maᵒɕɛn⁵⁴	ʔa¹¹ʔit⁵⁵	khoŋ³²²kɯ⁴⁵
阴蒂	PWMP*itil	--	zakar	maᵒlɛn¹¹tit⁵⁴	--	ŋ̟eŋ³¹maᵒdi⁵⁵
脚	PMP*qaqay	*kokD	kaki	ʑuŋ³¹	pa:k⁵⁵ʔa¹¹	kok⁵⁵
鸟	*manuk	*ɳokD	burʊŋ	maᵒnuk¹¹	maᵒðe¹¹	nok¹¹
头虱	*kuCu	*C-ʈuA	kutu	qaᵒtu⁵⁴	ʔaᵒtu²⁴	ru³³
老鹰	PWMP*kaŋkaŋ	--	elaŋ	qaᵒla:ŋ¹¹	ʔaᵒla:ŋ¹¹	ra:ŋ¹¹
跳蚤	*qatimela	*x-mətD	kutu	qaᵒmat⁵⁴	mat⁵⁵	mat¹¹
熊	*Cumay	*C-meA	--	taᵒmɛ³¹²	məi²⁴	mi³²²
糠	PMP*qəpah	--	Mhempa	taᵒpʰa¹¹	taᵒfa⁵⁵	bwa³³
藤	*quay	--	Mrotan	ma:kᵒqu⁵⁴	ma:k⁵³ʔu²⁴	ʑu²⁴
花	*buŋa	*hŋaC	buŋa	maᵒŋa¹¹	va²⁴	va³²²
中间	*teleŋ	--	teŋah	taᵒləŋ¹¹	tam⁵³ti²⁴	ta³³teŋ⁴⁵
左	*wiRi	*mjaŋB	kiri	qaᵒleu¹¹	ʔa³³pjak⁵⁵	ma³³ma:ŋ⁴⁵
右	*wanaN	*(x-)mitD	kanan	qaᵒmi¹¹	maᵒði⁵³	ma³³mit¹¹
影子	*liŋaw	--	bajaŋ	laᵒva:i¹¹	ʔeᵒŋau³³	ŋau⁴⁵
肥肉	*SimaR	--	lemaʔ	maᵒnɛn³¹²	man³³	nan³¹
草木灰	*qabu	*m-tuB1	(h)abu	qaᵒtu¹¹	maᵒtu⁵⁵	du³³
蛋	PMP*qateluR	*ʈəmA	təlur	qaᵒtam⁵⁴	tam²⁴	ram³²²
活的	*qudip	--	hidup	qaᵒlie³¹²	li³³	ʦau³³
鱼钩	*kabit	--	Ibankabit	ŋɔŋ³¹²ɓit⁵⁴	--	--
云	PMP*Rabun	*mukD	rawan	laᵒmuk¹¹	la¹¹mok⁵⁵	mok¹¹
八	*walu	*m-ruA	dəlapan	maᵒðu³¹²	maᵒðu³³	mu³¹
屁	*qetut	*C-totD	kəntut	qaᵒtut¹¹	ʔaᵒtut⁵⁵	rat⁵⁵
肚脐	*pudeR	*m-ɖaɯA	pusar	ma:kᵒɗuə³¹	maᵒɗu²⁴	na:u³²²
咬	*kaRaC	*rəmC	gigit	qaᵒðam¹¹	ʔaᵒðam¹¹	ra:i³³

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Language contact phenomena in Dungan language

Keywords: Dungan language; language contact; word borrowing.

Dungan language is a foreign dialect of Chinese that has attracted widespread attention from domestic and foreign scholars due to its unique geographical and historical background.

Dungan language is the language used by the Dungan people in present-day Kyrgyzstan. This language not only carries the traditional characteristics of the Shaanxi-Gansu dialect of the Chinese language but also absorbs lexical components from many other languages during its evolution, such as Russian, Arabic, Turkic, and other languages. Due to geographical separation, the Dungan language tends to diverge from Chinese historically. However, in recent years, Mandarin vocabulary has gradually been integrated into the Dungan language.

The goal of this study is to conduct an in-depth investigation of language contact between Dungan and other languages in order to understand the phenomena of linguistic borrowing and mutual influence that occur between these languages. Specifically, the goals of the research include investigating and analyzing loanwords from other languages in Dungan, identifying the characteristics and distribution of these loanwords, and providing detailed data and analysis for understanding the extent and manner of mutual influence.

The research material is a bilingual Dungan-Russian dictionary, «Краткий дунганско-русский словарь» ("Concise Dungan-Russian Dictionary", editor: Yusup Yanshansin, 2nd edition, revised and supplemented - Moscow, 2009).

The research is structured into two parts: material arrangement and material analysis. First, the focus lies on organizing the Dungan and Russian definitions within the dictionary. This phase also involves latinisation, providing Chinese character transliteration and definitions, and determining the origin of a word. The material analysis part delves into statistical analysis and a thorough examination of the organized materials. The research objective is to explore the phenomenon of borrowing foreign language vocabulary in the Dungan language as a result of language contact. The subject of the study centers on lexical borrowings from languages of different systems, investigating functional statuses of borrowed words in Dungan. The research outcome is expected to show the patterns of word borrowing, the contextual usage of borrowed words, and the level of integration of loanwords into the Dungan language system. In the language contact phenomenon based on Dungan-Russian dictionary research, we will focus on solving the following key issues: loan mechanism, source of loanwords, and factors that regulate lending.

For example, the word "ЛУФОН" comes from Chinese, and the corresponding transliteration is "楼房". In Dungan, this word was phonetically changed to "LUFON". Another example is the word "ГУНЗУӘ". Its pronunciation in Dungan is "GUNZUÄ", and the corresponding Chinese word is "工作". Words such as "АЛГЕБРА" (algebra), "УМУР" (life), "АСМАР" (sky) are derived from Russian, Arabic, and Persian respectively. The existence of these words in the Dungan language reflects the characteristics of the Dungan community as a multi-cultural and multi-lingual community.

Dungan language entry	Russian translation	Latinisation	Chinese character transliteration	Chinese definition	Mandarin equivalents	Origin of a word	Note

ЛУФОН	многоэтажный дом	LUFON	楼房	多于一层的房屋	楼房	汉语	
ГУНЗУӘ	работать, трудиться	GUNZUÄ	工作	操作,做事	工作	汉语	
АЛГЕБРА	алгебра	ALGEBRA	NA	数学的一门重要分科	代数学	俄语	
УМУР	жизнь	UMUR	NA	生物体所具有的存在和活动的能力	生命	阿拉伯语	
АСМАР	небо	ASMAR	NA	地球周围的广大空间	天空	波斯语	

Ukhengching Marma
Massachusetts Institute of Technology

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Ukhengching Marma

Massachusetts Institute of Technology (MIT)

Date: 15 April 2024

Topic: Documenting Topic and Focus morphemes in Marma

Abstract: Marma1, an endangered indigenous language of Bangladesh, is spoken by approximately 200,000 Marma individuals residing in southern Bangladesh's Chittagong Hill Tracts (CHT). Marma is closely related to Arakanese and Burmese Sidwell and Jenny (2014). Many lexical items are almost identical to those in Burmese, "although Marma forms exhibit a more conservative phonological profile, especially among initials and many grammatical particles, however, are considerably different from those in Burmese." (Keisuke (2011)). This paper investigates several morphemes and their roles in shaping discourse structures in Marma (topic-focus articulation, and information structure). Marma has "agglutinative morphology", predominantly using suffixes (Keisuke (2011)). We see prefixation, suffixation, and infixation as well. We will analyze the multifunctionality of these morphemes within Marma's discourse, exploring their implications for a better understanding of information structure in the language. The markers are prefixed and suffixed to the noun phrases (NP), and verb phrases (VP) and can be dropped depending on the discourse context.

Keywords: Marma, Indigenous language, information structure, topic and focus, morphology.

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Tonal Evolution in Sino-Tibetan Languages: Reflecting the Impact of Language Contact and Sociolinguistic Factors

Abstract:
This study explores the evolution of tone in the Sino-Tibetan language family, focusing on how language contact and sociolinguistic factors have influenced tonal changes. Tonal languages, characterized by their use of pitch to distinguish lexical or grammatical meaning, are prevalent throughout the Sino-Tibetan language family. However, the evolution of tone in these languages has not been uniformly documented, with some languages experiencing tone split, merger, or the emergence of new tones.

Data for this research were collected from historical linguistic records, fieldwork observations, and phonological analyses of a diverse set of Sino-Tibetan languages. The study employed a comparative method to analyze the tonal systems of these languages, aiming to identify patterns of tonal evolution and assess the role of external influences such as language contact with non-tonal languages and internal sociolinguistic dynamics like bilingualism and language shift.

The analysis revealed that tonal changes in Sino-Tibetan languages are significantly influenced by language contact, especially with neighboring non-tonal languages, leading to tone loss or the simplification of tonal systems in some languages. Additionally, sociolinguistic factors such as community size, language prestige, and patterns of bilingualism were found to play a crucial role in the maintenance, modification, or disappearance of tones.

The findings suggest that the evolution of tone in Sino-Tibetan languages is a complex process that cannot be solely attributed to phonological or genetic factors. Instead, it is profoundly shaped by social and linguistic contact environments. This study contributes to the understanding of tonal evolution in language families and highlights the importance of considering external and internal sociolinguistic factors in linguistic change.

Keywords: tonal evolution, Sino-Tibetan languages, language contact

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Preserving Poula: Challenges and Strategies for Sustaining an Unwritten Language

Abstract

Poula, a lesser-known language spoken by the Chakhesang tribe in Nagaland, is facing a critical threat to its existence. Among the three varieties of languages spoken by the Chakhesang tribe of Nagaland - Chokri, Khezha and Poula - Poula stands out with no written literature existing solely in oral tradition. This paper seeks to shed light on Poula's precarious status, highlighting the urgent need to preserve and promote the language, which remains largely unfamiliar even within the broader Naga language communities. As per the study it is found that Poula is spoken approximately by about 6000 speakers. Considering UNESCO's criteria, which demarcates a language to be endangered if its speakers fall below the threshold of 10,000; Poula with its scanty population can fall in the category of endangerment.

Unlike its neighbouring languages, Chokri and Khezha, which have written literature and are taught in schools, Poula lacks these essential resources for language preservation. Poula speakers, out of necessity, often use Tenyidie, for various domains, including formal and informal settings. This reliance on another language further marginalizes Poula and contributes to its diminishing use and visibility. Another contributing factor for endangering the language further is the (particularly disheartening development) hiring of a Tenyidie teacher by the URA Academy, to teach Tenyidie to the Poula-speaking community for many reasons which will be discussed further. This highlights the urgent need for concerted efforts to preserve Poula and revitalize its use within this speech community.

Since 2018 Government of Nagaland decided to do away with Alternative English which is taught as a subject under Modern Indian Language (MIL) and in turn came up with a subject called Heritage Studies which was formulated with the objective to teach both Naga languages as well as the way of life and culture of the Nagas. The lack of a Heritage textbook for Poula, in contrast to other languages, highlights Poula's significant disadvantage in terms of linguistic resources. This disparity highlights the pressing need for targeted initiatives to develop educational materials, grammar book, dictionary and other literary materials for Poula, ensuring its preservation, dissemination and revitalization.

The existence of a primer book for Poula, printed in 2018 for public use, represents a significant step in the development of its literature. Another milestone can be seen in the ongoing

dictionary project in collaboration with the Government of Nagaland, aimed at sustaining Poula's literary corpus and facilitating its use in educational and cultural contexts. The dictionary project in Poula, spearheaded by external collaborators, signifies a pivotal partnership aimed at assisting Poula speakers in developing their literature.

This paper aims to shed light on the status of Poula, the challenges it faces, and the potential strategies for its revitalization and preservation. It emphasizes the importance of linguistic diversity and the need to safeguard endangered languages like Poula to preserve the cultural heritage of the Chakhesang tribe and the broader linguistic landscape of Nagaland.

Keywords: Poula, Chakhesang, Nagaland

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Boro Existential Copula dɔŋ

dɔŋ is identified as existential copula 'exist' in Boro (B) (Tibeto-Burman language of north east India). It has been found to occur in both existential & non-existential environments. This paper is a humble attempt (i) to differentiate existential construction from proper locative predicate construction and (ii) to assess the subject NP in terms of factors (animacy, temporal and spatial) to determine the status of dɔŋ 'exist' in both existential & non-existential constructions.

Dryer (2007; 240-44) observes that an indefinite theme (Subject NP) requires a distinct existential construction. Thus, in line with this observation let's consider the following examples

1. bari-ao mɯsɯo mase dɔŋ
garden-loc cow clf-one exist
Lit: 'In the garden a cow present (there).'
'There is a cow in the garden.'

In e.g., 1 above, we have an existential clause; the theme mɯsɯo 'cow' is not case marked overtly giving it an indefinite reading. The indefinite theme mɯsɯo 'cow' is followed obligatorily by the existential verb dɔŋ 'exist' while the locative expression bari-ao 'in the garden' can occur either at the clause initial position as in 1 or at the clause final position as in 2 without any semantic difference.

2. mɯsɯo mase dɔŋ bari-ao
cow clf-one exist garden-loc
Lit: 'A cow present (there) in the garden.'
'There is a cow in the garden.'

From examples 1 & 2 we can conclude that dɔŋ 'exist' follows an indefinite theme obligatorily irrespective of the position of the locative component (clause initial/final position) and such construction can be identified as existential clause in B.
However, we also come across constructions where dɔŋ 'exist' occurs after locative case -ao optionally unlike in B existential clause (as in e.g., 1 and 2). This is illustrated with the help of example 3 as follows.

3. mɯsɯo-a bari-ao (dɔŋ)
cow-nom garden-loc exist
'The cow is in the garden.'

In e.g., 3 the theme (subject NP) is definite (identifiable subject). The theme mɯsɯo 'cow' carries the nominative case-a thereby giving a definite reading. The definite theme mɯsɯo-a 'the cow' occurs at the clause initial position followed by the locative expression bariao 'in the garden' plus the existential copula dɔŋ 'exist'. In 3, we have a

locative predicate clause with a definite theme mɯsɯo-a ‘the cow’ (3) unlike in existential clause which has an indefinite theme mɯsɯo mase ‘a cow’ (1&2).

The analysis of the data given above shows the distinction between existential and locative predicate clause in B. This distinction is based on the (i) presence of definite or indefinite theme and (ii) definite word order.

It is interesting to note that dɔŋ also appears in a number of non-existential environments. In non-existential environments dɔŋ expresses:

(a) Possession ‘have’ as in 4 below

4. aŋ-ha sa-nɯi phisala dɔŋ
1sl-poss clf-two son have
‘I have two sons.’

(b) Auxiliary ‘be’ as in 5 below

5. mainao-a methai khon-gasinɯ dɔŋ
Mainao-nom song sing-prog be
‘Mainao is singing.’

In e.g., 4 the subject takes the Possessive case -ha and dɔŋ is equivalent to ‘to have’; in e.g., 5 dɔŋ functions as an auxiliary verb. The main verb khon ‘sing’ inflects for progressive aspect -gasinɯ while dɔŋ as an auxiliary verb carries the tense feature.

The morpheme dɔŋ exhibits a feature commonly found in some of the Tibeto-Burman languages of north-east, India which is that of realizing different semantic functions when it occurs in different syntactic environments as shown in examples 1-5.

Keywords： Boro, Existential, Copula, locative, Predicate, semantic, syntactic

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Case Marking System in Yachem and Klee Allou

In Northeast India, ethnic denominations and linguistic realities often do not match and sometimes different languages beyond dialectal variances are spoken under the same name with distinct features that even transgress the genealogical classifications. Yachem is a transitional variant between Mongsen Ao (Aoic, Kuki=Chin-Naga) and Phom (Konyakian, Sal), spoken approximately by 2500 people in Yachem and its satellite villages in Longleng district of the Nagaland State. Klee Allou ([k(ə)le: ɐɬɔu] Klee language) is a kind of crypto-language in Anakhai / Anaki, a Phom-Ao mix village near Assam-Nagaland border in Mokokchung district, with only 1 fluent speaker left and less than 20 people barely retain partial knowledge of it. These two have mutual intelligibility despite the geographical distance and shares the basic sound system and morpho-syntactical structures, as Klee speakers and their descendants narrate the original migration from Tangha village of their ancestors and their historic sojourn in Yachem. Klee seems to preserve older traits of the common ancestor of the two, as observed in diphthongs in Klee and the poetic dictions of Yachem corresponding to the monophthongs in modern colloquial Yachem. Almost all the speakers of Yachem and Klee are trilingual with standard Phom and Nagamese, some understand Chungli Ao and the Klee consultant speaks Mongsen Ao as well. The case marking system in Yachem and Klee generally have closer affinity to Mongsen Ao than to Phom, some of the markers have identical forms. Yachem and Klee have *=ka* ("go") as static locative marker. While Klee has productive use of *=hane* ("come") as ablative marker, Yachem tends to employ the shared common ablative *=ṅing* more often. Allative / Instrumental *=ne* appears instead of *=ka* when it is used with verbs of motion to certain direction or destination. Agentive / Instrumental *=ne* is obligatory for all transitive sentences, attached to every agent noun except 1st person singular pronoun *nyi* in Yachem, *nyi* or *ngu* in Klee where they change the form to *ka=ne*. Genitive *chi* is used with clitic pronouns like *i=chi* (our), or *pha=chi* (his), yet for other nouns 3rd person *a=* is required as in *a=chi* placed after the possessor noun. Dative / Accusative marker is *=li* and accusative specific marker is not found, for non-human patient in most cases it is either unmarked or accompanied by topic marker *hi*. Sociative / Comitative is *=ṫim*, benefactive *a=ṫim=li* is considered as a composite of 3rd person *a=* and sociative *ṫim* and dative *=li*. In this presentation the case marking system in Yachem and Klee is shown and discussed with examples in comparison, based on the materials from field trips in October 2022 and February-March 2024 in Nagaland.

The Classifiers in the Hani Language of Jinping County

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Abstract:

Classifiers, as a unique category of words, have always garnered extensive attention from the academic community. Some scholars believe that, in addition to measuring and counting, the semantic and grammatical functions of classifiers are multifaceted, including categorization, classification, and definite reference. This paper studies the Hani language classifiers of Jinping County in Yunnan Province, examining individual classifiers and conducting a detailed semantic analysis and summary of those that function in categorizing and distinguishing forms of objects. For instance, the Hani quantifiers in Jinping County contain the sequence of vitality levels, which also has the function of distinguishing spatial dimensions, as shown in the following: (1) Hani quantifiers show vitality level differences when modifying nouns, and according to the category of the modified nominal things, they show the level differences of: people>animals>plants, and the level differences of the Hani quantifiers are shown as: ɣa^{31} > za^{31} > kho^{33} > mu^{33} > mo^{55} > dzo^{55} > du^{33} > tsɳ^{33}. (2) Individual classifiers also distinguish spatial dimensions based on the perception and cognition of objects. According to their states in physical space, they are categorized into one-dimensional, two-dimensional, and three-dimensional classifiers. One-dimensional classifiers denote linear objects, two-dimensional classifiers denote planar objects, and three-dimensional classifiers denote volumetric, spherical, and block-like objects.

Keywords: Hani language; quantifiers; classifiers; cognitive categories

中文摘要：

量词作为特殊的词类一直受到学界的广泛关注，部分学者在讨论和探索量词功能时认为除了称量和计数外，量词语义、语法的功能具有多重性，如分类、范畴化、定指等。

本文以云南省金平县哈尼语量词为研究对象，考察哈尼语个体量词，对其中具有类别作用和区分事物形态的量词按照语义进行详细分析与归纳。如金平县哈尼语量词蕴含生命度等级序列，也具有区分空间维度的功能，具体表现为：（1）哈尼语个体量词修饰名词事物时表现出生命度等级差异，根据所修饰名词事物的类别呈现出：人>动物>植物的等级差异，哈尼语量词的等级差异则表现为：ɣa^{31}>za^{31}>kho^{33}>mu^{33};mo^{55}>dzo^{55}>du^{33}>tsɿ^{33}。（2）个体量词根据感知和认识事物的方式，也具有区分事物空间维度的功能，根据事物在现实空间中的存在状态，区分出一维空间量词、二维空间量词及三维空间量词，其中一维空间量词为线状事物、二维空间量词为平面状事物、三维空间量词则为立体空间类、球状类及块状类事物。

关键词：哈尼语；个体量词；类别词；认知范畴

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An Analysis of Adverbs of Manner in Tibetan in the 11th Century AD

Abstract Thomas E. Payne states that the manner adverbs are commonly the largest subcategory of adverbs in any language. Po to ba rin chen gsal (AD 1027-1105)'s *Dpe chos rin chen spungs pa* and *Bevu bum sngon po* are two classics in the 11th century that mainly use the U-Tsang dialect of Tibetan to describe the principles of Buddhism. This article uses a combination of diachronic comparison and synchronic description to conduct a detailed study of the manner adverbs used in these two classics, analyse their forms, and explore their combination relationship with verbs. This article also discusses its semantic issues and compares the manner adverbs in Tibetan in the 11th century with those in the U-Tsang dialect of Tibetan today. The manner adverbs in 11th-century Tibetan are all located before verbs, their semantics are diverse and expression including *quickly*、*fearfully*、*secretly* etc and they usually operate at the clause or discourse level. Nowadays, some dialects in the U-Tsang area not only retain some manner adverbs of the 11th century Tibetan language in the same nature, but also have many new manner adverbs. Based on the research of ancient Tibetan literature and Tibetan oral materials, This article believes that the manner adverbs used in Tibetan dialects now have a relatively strict correspondence with the manner adverbs of ancient

Tibetan, and their production time can be traced back to the 11th century AD at the latest.

1. Adverbs of manner used in Tibetan in the 11th century, use of Latin transcription for Tibetan. for example:

Adverbs of manner	for example
bkogs	nga rgyal bkogs kyis bcag
kar	mi bde kar gyis vgro
dgrog	dgrog gis song ba
nyal	nyal gyis bsad
zings	zings kyis thog tu vong
khres	khres kyis bor ba
khrel	gos dkar bor khrel gyis btang ba
kam	kam gyis btang

2. According to the author's preliminary investigation, there are now 33 manner adverbs in the Lo-glan dialect of the U-Tsang Tibetan dialect (there may be more). The details are as follows:

co^{ʔ}、cap、tʂo^{ʔ}、pa^{ʔ}、pi、p^{h}i、bɛ、le、tɕam、tɕip、dʑi^{ʔ}、to^{ʔ}、ɦiɛ、hen、ɦiap、c^{h}u^{ʔ}、rip、ɳok、dzop、do^{ʔ}、dza^{ʔ}、^{n}dem、^{n}da^{ʔ}、tu^{ʔ}、dop、sip、^{n}dʑa^{ʔ}、wu、tʂ^{h}i、tʂ^{h}in、tip、dʑa、sak.

3.Comparison of examples of manner adverbs used in Tibetan in the 11th century and in the U-Tsang Tibetan dialect of Lo-glan today:

Tibetan language in 11th | Lo-glan Tibetan

3.1 quickly

a.	vubs	kyis	bsdu-ba		b.	$k^{h}ø$	ŋa	ɦap	zin	tɕu	
	ADV	ERG	V.Collected-NOM			3SG.l-ERG	1SG.l	ADV	V.scratch	AUX	
	Collected quickly.					He grabbed me quickly.					
c.	phril	gyi	son-ba		d.	boŋ	naŋ-la		rip	$lo^{?}$	tɕu
	ADV	ERG	V.go-NOM			girl	home-ALL		ADV	V. return	AUX
	Going quickly.					The girl went home quickly.					

3.2 fearfully

a.	snying	had	kyis	vgro-ba		b.	$k^{h}o$	$c^{h}i$	la	hen	$dzo^{?}$	su
	center	ADV	ERG	V.go-NOM			3SG	dog	ALL	ADV	V.go	AUX
	The heart walks in fear.						He went in fear of the dog.					

3.3 secretly

a.	sag	gis	vgro-ba		b.	do nø	sak	ci	ndzo	
	ADV	ERG	V.go-NOM			tonight	ADV	ERG	V.go	
	Sneaking in.					Sneaking in tonight.				

3.4 Destinationless

a.	rlung bo-s	bur	gyis	khyer	ba-vi	gtam		b.	tɕiu	nam	la	ɦu	$p^{h}ir$	su
	custom-ERG	ADV	ERG	V.blow	NOM-GEN	story			bird	sky	ALL	ADV	V.fly	AUX
	The story of being blown aimlessly by the wind.								Birds fly aimlessly into the sky.					

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Comparative and superlative constructions in South Central Tibeto-Burman

This talk exhaustively surveys the known evidence for the structure and composition of comparative and superlative constructions in South Central Tibeto-Burman (Kuki-Chin). Besides an overview of general structure, which shows minor variation from language to language, recurrent elements are identified; we also attempt an assessment of what aspects of comparative and superlative constructions are to be reconstructed, and at what levels within the subgroup.

In general, comparative and superlative constructions to date are only rarely given an adequate treatment in grammars of Tibeto-Burman languages, and in some cases discussion of them is absent altogether. (They are only mentioned in a handful of the sketches found in Thurgood and LaPolla 2017, for instance.) For most South Central languages, it is typical for a single page of a description to contain some information on relevant constructions. Recently there have been a few notable exceptions (Zakaria 2017 on Hyow, Akter 2023 on Pangkhua).

In terms of form, the relevant constructions typically have a marker for the standard of comparison, as is usual in Tibeto-Burman and verb-final languages more generally. Accompanying (stative) verbs more often than not bear a marker for the construction as a comparative one. The data in (1) from Nuita' Zophei illustrates these features:

(1) amaa navee=aa noo uh aa-siim-vee
3S STAND=LOC P.N. 3SS-smart-COMPAR
'Nawl Uk is smarter than him.' (Perkins 2020:8)

Superlative constructions may involve a somewhat more complicated structure, making use of a quantifier 'all', as in (2) from Hyow:

(2) nɨ́ hángháng khǽ thók=â pɔ̂y
3S all all THAN=LOC good
'This is the best (this is better than all). (Zakaria 2017:606)

However, typically a verbal marker suffices to mark the superlative, as in (3) from Nuita' Zophei:

(3) mang aa-saan-tseeng
P.N. 3SS-high-SUPERL
'Mang is tallest.' (Perkins 2020:12)

In the talk, we will identify several recurrent markers that are used in these functions and carefully examine their distribution across the South Central subgroups. To a certain extent, these line up with existing posited subgroups (e.g., Northeastern, Maraic, Core Central). In other instances there is more extensive variation at the level of the subgroup.

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Knowledge rooted in the will: Looking at egophoric markers and evidentiality from the lens of Thewo Tibetan

This paper describes the egophoric suffixes of Thewo Tibetan, a small Bodish language spoken on the Northeastern corner of the Qinghai-Xizang Plateau. Egophoric markers in Thewo Tibetan are mostly restricted to volitional acts the speaker has done, is doing, and will do. Actions or states which are not rooted in the will but that are done or felt by the speaker (i.e. non-volitional actions, states, and inner processes) are marked by evidential suffixes also commonly found in use with second or third person agents, etc. Thus Thewo Tibetan makes a distinction between knowledge rooted in the will, and knowledge gained through observation. Next, the paper explores whether or not egophorics constitute an independent grammatical category in Thewo Tibetan. To answer this question, the author first analyzes popular definitions for evidentiality and egophoricity and how they are used, and second explores other languages around the world, especially Tibeto-Burman Languages, to see how scholars have analyzed other evidential and egophoric systems. The results show what appears to be a high degree of congruity in egophoric systems cross-linguistically. Despite the similarities, not all scholars analyze egophoric markers the same way; however, it appears that common cross-linguistic semantic and pragmatic motivations undergird both the use of evidentials and the use of egophoric markers. Given this close relationship between egophorics and evidentials cross-linguistically, and in Thewo Tibetan specifically, it is argued that Thewo Tibetan egophoric markers are part of the evidential system. It is further argued that Thewo Tibetan's evidential system is best analyzed as a grammatical classification of different knowledge types.

Kewords:
Evidentiality, Egophoric markers, Volition, Inner processes

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A Study on *Zhe-ge* and *Wu-ge* in Jin Dialects Spoken in Yushe Region

Qiao Huifen Nankai University

Abstract: Demonstratives in different dialects constitute the system of demonstratives in Modern Chinese. Nevertheless, most previous studies have focused on the words' multi-functions and attached less importance to the comparison of their positions and functions from the perspective of grammaticalization. Against the background, this article is based on functional distribution to divide *Zhe-ge* and *Wu-ge* (portmanteau word, roughly equal to *this* and *that* respectively in Modern Chinese) in Yushe dialect into three types, namely, pre-added type(i.e., demonstratives), post-attached type (i.e., quasi-suffix), pre-attached type(i.e., quasi-clitic), and with the research focus on the words'functional discrepancy, motivation of evolution and diachronic origin. The results show that the three types have undergone multi-routes of grammaticalization. Specifically, word order, attention focus regulation, rhyme, metaphoric extension and Chinese word order converge to comprise the motivation to drive the words to change along the routes illustrated by the three types. Moreover, the post-attached type and the pre-attached type emerge as a result of the grammatical sandhi in the pre-aaded type. The current study has revealed the diversity of Chinese attributive markers as well as assists in deepening the systematic recognition of Chinese attributive structures.

Key words: Jin dialects, Yushe dialect, demonstratives , grammaticalization

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Verbal Tonal Patterns in Bōwān Naxi, a Western Naxi Dialect

Naxi is a typical tonal language. While the complexity of Eastern Naxi (a.k.a. the Na language of the Naish family) is well discussed in previous studies, Western Naxi (a.k.a. Naxi) is commonly reckoned as a syllable-tone system, lacking processes of tonal change. However, in the Western Naxi dialect spoken in Bōwān hamlet, Sānbà Naxi Township, Yúnnán Province, we discovered that the tonal patterns of verbs are more complicated than previously described. Despite having only the four contrasting surface tones typical of Western Naxi dialects (H(igh), M(id), L(ow), and R(ising)), Bōwān Naxi actually has five underlying monosyllabic tonal categories in verbs (Table 1), two of which (henceforth M_a and M_b) neutralize as M in isolation, but contrast in morphological contexts including negation, reduplication, and nominalization. This finding was obtained by examing all monosyllabic verbs in relevant environments. Parallel examination done to disyllabic verbs yield twelve, rather than twenty-five (5 × 5 = 25), disyllabic tonal patterns.

Category	Isolation	Negation	Reduplication	Nominalization	Example: /kɑ/
H	**H**	H.**M**	**H**.**M**	**H**.M	‘to scoop’ (舀)
M_a	**M**	L.**M**	**M**.**H**	**M**.H	‘to close (books)’ (合)
M_b	**M**	M.**M**	**M**.**M**	**M**.M	‘to swallow’ (吞)
L	**L**	M.**L**	**L**.**M**	**L**.M	‘to be tired’ (累)
LH	**R**	L.**R**	**R**.**R**	**L**.H	‘to be drunk’ (醉)

Table 1 (Tones in **boldface** indicate verb roots)

We then explored the tonal behaviors of the 5 underlying monosyllabic categories in two-component verb complexes, as well as their negative forms (inserted with a toneless negative marker). The results support the postulation of a floating H tone for M_a, and the analysis of the rising contour as an underlying combination of L + H, with the H tone reassigned to the immediately following syllable if it is toneless. Underlying forms of the other tonal categories were also proposed.

The Bōwān tonal categories were then compared with other western Naxi dialects, and we discovered that M_a and M_b are actually of different diachronic origins. The M_a tone corresponds to an overt H tone in all the 3 dialects we used to compare, which supports our analysis of the floating H tone; on the other hand, the M_b tone correspond to an M tone. We also suggest that the Bōwān dialect could be in an intermediate stage of an on-going simplification (tone merger) from the morphotonologically complicated Eastern Naxi tonal system to a more transparent Western system. In this process, only constructions such as the verb complex, maintain somewhat archaic and less transparent patterns.

The present research not only presents a tonal system that has more underlying tones than previously described, but also suggests that underlying tonal specification does, to some extent, reflect historical developments. We would like to call for a further inspection on the internal structure of the dialects used for historical comparison, which may lead to a clearer picture of its diachronic evolution.

Key words: Naxi, Western Naxi, tone, tone sandhi, phonology

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Polar questions in Jinghpo

Polar questions can be expressed by different means in Jinghpo. The most conservative way is to use interrogative marker *ni*^{51} in the mood slot of the complex verbal endings system. Following the simplification of the verbal ending system in modern Jinghpo, polar questions are now most commonly formed with interrogative marker *i*^{33} occurring outside the verb complex as a sentence final particle (Kurabe 2016). In this paper, we present new fieldwork data exhibiting a previously unnoticed preverbal use of the polar question marker *i*^{33} in the Enkun variety of Jinghpo spoken in South-Western China (Tongbiguan, Yingjiang county, Dehong Prefecture, Yunnan province). This pattern, coexisting in the language with conservative verbal endings in -*ni*^{51} and with sentence final particle *i*^{33}, is considered more straightforward by Jinghpo speakers and is thus rarely found in elicited data. However, it is widely used in spontaneous speech and is also attested in dialogue parts of several modern Jinghpo novels. Through a detailed analysis of polar questions occurring in both fieldwork data and published literary works, we show that these three patterns cannot always be used interchangeably, and that restrictions on the use of preverbal *i*^{33} are mostly related to original speaker bias or contextual evidence bias (Romero 2024).

Aspect, Volitionality and Associated Motion in Tibetan Vbora

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Abstract: Tibetan Vbora, an Amdo dialect spoken in Xiahe County, Gansu Province, features a three-level aspect system comprising situation aspect, phasal aspect, and viewpoint aspect. Previous studies（Haller，1996；Zeisler, 2004） have characterized the Tibetan aspect category as intricate and often represented in a convoluted manner. However, recent fieldwork reveals clearer relationships between internal subcategories, with certain aspect markers demonstrating intertwined relationships with volitionality and associative motion categories, although no instances of associated motion in Tibetan have been reported.

The imperfective in Vbora can be divided into four subcategories: the two general imperfectives, Inceptive and Resultative. The first type of Vbora general imperfective is marked by the imperfective marker -/dɜ/ and the -/kɯ/, with the latter not being able to stand alone without the former. The grammatical morpheme -/ kɯ / exhibits distinct semantic functions depending on the situation it co-occurs with.

The other general imperfective is marked primarily by -/dɜ/, with its host containing markers for volitionality and associated motion. In imperfective clauses, the associated motion markers /ⁿʝjo/ or /-ju/ work together with the prototypical aspect marker /-dɜ/ to express imperfective when co non-moving, non-volitionality verb.

Vbora's Inceptive is marked by the imperfective marker -/dɜ/ and the suffix /tu/, and only co-occurs with volitionality in the situations Activity, Accomplishment and Semelfactive to express the beginning of an action or event. The resultative of Vbora is marked by -/dɜ/, which only co-occurs with States and situations with the characteristic of being telic.

Vbora's perfective aspect is realized through two distinct forms: one marked by the suffix -/ta/ attached to verb stem 2, and the other marked by a zero marker on verb stem 1, accompanied by the addition of volitionality and associated motion markers. The semantic implications of -/ta/ vary depending on the situation it co-occurs with.

Comrie (1979:25itual as a subordinate concept of imperfective with little connection to perfective. However, the phenomenon of Habitual in Vbora speech is different from this view and can be regarded as another dimension of aspect. Habitual can semantically co-occur with all other aspects (except Inceptive), and there is a correlation between

the Habitual marker and the aspect marker of its non-habitual form.

Imperfective-Habitual is marked by /kɯⁿdɯx/ or -/ⁿdɯx/, Resultative-Habitual by /ⁿdɯx/, Perfective-Habitual by /-tu/, and Perfect-Habitual by /ⁿdʑɯx/. Associated motion markers also indicate Perfective-Habitual, with the grammatical morphemes -/ⁿɟɟo/ and -/ju/ pointing directly to the result of the change when the slot for aspect is empty.

In addition to the aspect markers mentioned, Vbora has three types of aspect-like markers, called aspect strategies. These include the Mermaid structure (-/la/ and -/le/), markers that precede the light verb “do” (-/jɤx/ and -/tɕi/), and the secondary verb /tsʰɜʐ̩/('complete") that follows the main verb.

Keywords: Tibetan, aspect, volitionality, associated motion.

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Argument indexing in the Smar.rong dialect of Zbu Rgyalrong

Smar.rong, also known as Zbu supérieur (Gong 2018), is spoken in the village of Smar.rong, khog.po Township, Rnga.ba County, Rnga.ba Tibetan and Qiang Autonomous Prefecture, Sichuan Province, and is an extremely endangered dialect of the Zbu Rgyalrong. This paper analyzes argument indexing in Smar.rong based on the first-hand data collected from recent fieldwork. In addition, this paper also discusses some social variants of the indexing system in Smar.rong.

The phenomenon of argument indexing is a very prominent feature of the Rgyalrongic languages, and is also regarded by scholars as an archaic feature of Sino-Tibetan languages (Jacques 2012). Like other Rgaylrongic languages, Smar.rong has inverse marking and hierarchical alignment based on “empathy hierarchy”, as well as the phenomenon of double suffixation.

Compared to Ngyaltsu dialect of Zbu (Bas-zbu) and other Rgyalrongic languages, Smar.rong has several different characteristics:

1) inverse marking occurs only in 3 > 1 and 3 > 2 in the mixed domains;
2) the local and mixed domains show hierarchical alignment, while the non-local domain show nominative-accusative alignment;
3) ku- (kə-u-) prefix occurs in 3>1 of the mixed domain, in which we hypothesize that kə- is the same as that in 2>1, and it can be taken as a marker indicating 2/3> 1;
4) no direct/inverse markers occur in non-local domain, and prefix a- occurs in all situations;
5) most of the Rgyalrongic languages have stem alternation to index arguments, for example, in Japhug, and bas-Zbu the stem 3 express the situation of 1/2/3sg > 3, but it has nearly disappeared in Smar.rong.

Keywords : Smar.rong Zbu, argument indexing, hierarchical alignment, inverse marking

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Dyadic kinship term nouns in Lhaovo

Lhaovo, a Northern Burmish language spoken in the Kachin and Shan states of Myanmar and Yunnan Province of China, has three nouns denoting dyadic kinship terms (DKT). Here, the 'dyadic (kinship) term' means "an expression of the type '(pair of) brothers' or 'father and child,' in which the kinship relationship is between the two referents internal to the kin expression" (Merlan & Heath, 1982, p. 107).

(1) a. ***pʰaᴸ*** '**father-child pair**' b. ***maᴸ*** '**mother-child pair**' c. ***n'eŋᶠ*** '**two siblings**'

This presentation provides an initial description of DKT nouns in Lhaovo.

Unlike Australian languages Merlan and Heath (1982) dealt with, which form DKTs mainly by affixation, Lhaovo DKTs are simple, unanalyzable ones in the present stage. *pʰaᴸ* and *maᴸ* is probably related to *(ʔă)phoᴴ* 'father, male' and *-moᴴ* 'FEMALE', respectively.

The DKT nouns can stand alone with the non-egophoric prefix *jă-* and can be modified by the demonstrative determiner such as *tʃʰeᴸ* 'PROXIMAL' and *ʔajᴸ* 'MEDIAL'.

(2) a. *jă-**pʰaᴸ*** '**a father-child pair**' b. *tʃʰeᴸ **maᴸ*** 'this **mother-child pair**'
c. *ʔajᴸ **n'eŋᶠ*** 'that/the **two siblings**'

When a DKT noun is postposed to an NP consisting of two NPs that refer to human individuals joined by the coordinator *=eʔᴴ*, it indicates a relationship between the two human individuals.

(3) a. *kʰoŋᶠnoŋᴴ=eʔᴴ lømᴴtauᶠ **maᴸ*** 'Khao Nao **and her son** Leim Dau'
b. *tauᶠkʰoŋᶠ=eʔᴴ tauᶠlømᴴ **n'eŋᶠ*** '**brothers** Dau Khao and Dau Leim'

When a DKT noun is compounded with a human noun that does not necessarily refer to a single individual, it determines the number and kinship of the individuals consisting of the referent of the whole NP.

(4) a. *(ʔajᴸ) lăhaᶠ**-pʰaᴸ*** '(the) Chinese **father and child**'
b. *(ʔajᴸ) phăkaᴸpjuᶠ**-n'eŋᶠ*** '(the) merchant **and his brother**; (the) **two** merchant **siblings**'

When a DKT noun is compounded with a kinship term, usually used to refer to a single individual, it selects another individual consisting of the referent of the whole NP to satisfy the kinship relation it denotes.

(5) a. *m'jiᴴ**-maᴸ*** 'mother **and child**'
b. *(jă-)n'auŋᴸ**-n'eŋᶠ*** '(someone's) younger brother/sister **and his/her sibling**'

(6) a. *(ŋaᴴ) tsoᴸ**-maᴸ*** '(my) child **and his/her mother**' b. *(ŋaᴴ) tsoᴸ**-n'eŋᶠ*** '(my) **two** children'

A DKT noun can be compounded with the noun *t'oŋᶠ*, which denotes two humans in general, without any change in meaning.

(7) a. *pʰaᴸ**-t'oŋᶠ*** 'father-child pair' (=(1a)) b. *maᴸ**-t'oŋᶠ*** 'mother-child pair' (=(1b))
c. *n'eŋᶠ**-t'oŋᶠ*** 'two siblings' (=(1c))

By suffixing *-hoʔᴴ* denoting a plurality of human individuals, a DKT noun can refer to more than two individuals who fulfill the kinship relation it denotes.

(8) a. *maᴸ**-hoʔᴴ*** 'mother and child**ren**; family' b. *n'eŋᶠ**-hoʔᴴ*** '**more than two** siblings'

DKT nouns can be combined with numeral nouns. In this case, they behave similarly to 'family group classifiers' in Bradley (2001). Numeral nouns denoting other than '1' quantify the individuals consisting of the referent of the whole expression, whereas *tăᶠ* '1' quantifies the pair itself.

(9) a. ***tăᶠ**-maᴸ* '**a** mother-child **pair**' b. ***ʃitᴴ**-maᴸ* 'mother and child'
c. ***samᶠ**-maᴸ* 'mother **and two** children'

Similar nouns seem to exist in Lacid and Zaiwa within Myanmar.

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Case Compounding in Classical Tibetan

The occurrence of case compounding, characterized by the affixation of multiple case markers to a noun stem, is prevalent in languages possessing case categories, albeit not the prevailing paradigm for case assignment. Tibetan-Burman languages exhibit a broad distribution of this phenomenon. Despite Noonan's (2008) comprehensive comparative analysis among this language group, there is still a scarcity of intensive inquiries into this phenomenon in the perspective of individual languages.

Tibetan, renowned for its extensive and rich literary data within the Tibetan-Burman languages, offers a rich corpus for the examination of case compounding. This study delves into the types and semantics of case compounding in Classical Tibetan, a period that exhibits a significantly higher occurrence of case compounding than in modern Tibetan.

The research reveals that, in Classical Tibetan,1) the three most prevalent and commonly observed patterns are case stacking, case suffixhäufung, and case hypostasis, whereas other patterns are comparatively infrequent;2) case compounding is primarily utilized to designate intricate spatial trajectories alongside contextual information encompassing reasons, conditions, and hypotheses, primarily serving as adverbial elements within sentences. Nevertheless, the majority of case compound types that were characteristic of Classical Tibetan have vanished, rendering them nonexistent in Modern Tibetan.

Keywords: case compounding, semantic properties, Classical Tibetan

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Relative Clauses in Nuosu Yi

This presentation aims to describe and analyze the relative clauses in Nuosu Yi [Loloish, Tibeto-Burman; Liangshan, Sichuan, China]. Liu (2005) defined the term *relative clause* as "(a type of subordinate clause, in which) the head noun modified by the subordinate clause also has a syntactic position in the subordinate clause, including the subject, object, etc., which may be gapped, or may have a pronoun resumption."

According to such a definition, there are two main types of relative clauses in Nuosu Yi: Type (i) consists of at least one transitive predicate (and usually an argument), and the nominalizer *su*^{33} or a classifier; Type (ii) contains an intransitive predicate and the nominalizer *su*^{33} or a classifier, as illustrated in (1) and (2), respectively.

(1) tsho^{33} ga^{21}mo^{21} dɛ^{33} su^{33}/ma^{33} pu^{33} ʤa^{44}ʤɯ^{33} la^{33} o^{44}.
People road make NMLZ/CL back have meal come PFV
A/People who construct(s) the road has/have returned to have a meal.

(2) thɯ^{21}bu^{21} a^{44}ʂo^{33} su^{33}/tɕi^{33} a^{44}ti^{33} kha^{33}.
Stick long NMLZ QUANT.only need
Just need the/a long stick(s).

Previous works (e.g., Gerner 2013. etc.) generally treated only Type (i) as the relative clause and described Type (ii) as the adjectival modifying construction. We argue that Type (ii) also belongs to relative clause constructions for two reasons: first, it requires the occurrence of the nominalizer or a classifier, just like Type (i); Second, intransitive predicates can take only one argument, so it is arguable that when this only argument is extracted as the modified noun, only the intransitive predicate would be left in the subordinate clause.

Moreover, Nuosu Yi has another interesting noun-modifying construction consisting of a numeral followed by a classifier (measure word) *khu*^{55} 'year'. This construction can be followed by the nominalizer *su*^{33} to modify the head noun, just as the relative clause.

(3) da^{33}ʂŋ^{55} ȵi^{21}tsi^{33} khu^{55} su^{33} ɣɯ^{33} ȵi^{33} sa^{55}.
Young man 20 CL (MW) NMLZ power have EXH
Young men whose age is 20 have the most power.

Furthermore, we find the classifier (measure word) *khu*^{55} *'year'* might underlyingly be a verb since it can be directly negated by the negative prefix *a*^{21} and followed by TAM markers, just as a verb but not other classifiers (measure words). If that is the case, numerals in this construction might play the role of an argument. This presentation will also discuss such a unique modifying construction.

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How many MANY in Min: An exercise in reconstructing lexical layers

[Abstract]

In most Chinese dialects, only the morpheme 多 is used in the word MANY. However, in Min dialects, different morphemes are used in MANY and some related words, such as HOW MANY, THESE, PLURAL MARKER. This paper reconstructed three layers of MANY to explain the evolution of MANY and related words in Min dialects.

First, we investigate Western Min in which significant internal variations are found. Both Far Western Min and Northern Min use 多 in such word as HOW MANY、THESE、PLURAL MARKER. We argue that it indicates 多 is the earliest form of MANY in Western Min. The pronunciation of 多 with diphthongs ending in -i also indicates it belongs to the layer derived from Old Chinese 歌 Rhyme. For the word MANY, 夥 is used in Far Western Min and a few Northern Min varieties (such as Huang Keng and Shu Fang), while Central Min and most Northern Min varieties use a form derived from *dze. As a result, we propose that three layers of MANY, namely 多 > 夥 > *dze ('>' means earlier than), are involved in a four-stage evolution path of MANY in Western Min.

Next, we investigate lexical layers of MANY in Eastern Min and Southwestern Wu. In Eastern Min, the earlier layer of MANY is 夥, which is still preserved in HOW MANY, while 夥 has been replaced by *dze in MANY. In Southwestern Wu, the earlier layer is 多, which is still preserved in HOW MANY and THESE, while 多 has been replaced by 夥 in MANY (and in some varieties by 多 2, the later pronunciation of 多). Parallel to Western Min, the pronunciation of 多 in Southwestern Wu also belongs to the layer derived from Old Chinese 歌 Rhyme.

Then, we compare different layers of MANY in Eastern Min and Southwestern Wu with those in Western Min. It is found that although only two of the three forms for MANY in Western Min are preserved in Eastern Min and Southwestern Wu, their relative timing is exactly the same with what is proposed in Western Min, namely 多 > 夥 > *dze ('>' means earlier than). Therefore, the evolution path of MANY in Western Min can also explain the situation in Eastern Min and Southern Wu with some modification.

To conclude, we discuss how to understand the relationship between three layers of MANY in Min dialects and the mainstream Chinese lexicon reflected in written record and some related methodological issues.

[Keyword] Historical linguistics, Lexical reconstruction, Lexical layer, Min dialects, Old Chinese

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Inflectional stem alternation of verbs in Mätro nDrapa

The nDrapa language (ISO 639-3 zhb) from the Qiangic group of the Sino-Tibetan language family shows agglutinative morphology, which is relatively simple in the group. However, it also has stem alternation in part of the inflection of part of verbs: (i) Vocalic and tonal modification in the imperative. For example, *kʌ́-ntɕhí* '(someone) looked at (it)' consists of the inward directional prefix *kʌ́-* and the verb stem *ntɕhí* 'to look,' which alternate to *kó-ntɕhu* 'Look at (it)!' in the imperative form (In this case, the stem vowel alternates to /u/ and the prefix vowel assimilates to it); (ii) Vocalic modification related to perspective. For example, *ŋ̊ô* '(I) hear.' has a back rounded vowel whereas *ŋ̊ô* '(Someone) hear.' has a central vowel; (iii) Consonantal gemination related to aspect and perspective, for example, *kʌ-tʌ́* '(I) hit (someone).' vs. *kʌ-ttʌ́* '(Someone) hit (me).' Previous studies partially mentioned the corresponding phenomena. Huang (1990) mentioned (i) and (ii) in the Tratho dialect from the northern group. Gong (2007) described the phenomena corresponding to (i) and (iii) in the Wuzhi dialect from the southern group, but (iii) is attested as prefixation. Huang (1990) and Gong (2007) explain that (ii) and (iii) reflect the category of person, respectively.

This study examines the morphological process and functions of stem alternations in the Mätro dialect based on the data from my fieldwork before the COVID-19 pandemic. Among the abovementioned alternation patterns, (i) is relatively productive but has phonological and lexical restrictions. (ii) and (iii) are limited to part of verbs since there are suffixes that indicate the perspective in other verbs. We will conclude that it is not the category of person but the perspective crucial to such verbal morphology in nDrapa because the interrogative sentences with a second-person subject use forms identical to the first-person subject.

This study will also contrast the phenomena with neighboring languages. In the adjacent region of nDrapa, Western rGyalrongic languages and other Qiangic languages, such as Choyu and Munya, are also distributed. rGyalrongic languages share characteristic stem alternation patterns distinct from other Qiangic languages (Sun 2000). Contrastively, varieties of Rma and Prinmi (Qiangic languages spoken in remote regions) do not show vocalic alternations in their verbal inflection. nDrapa morphology is different from either of those. Therefore, the detailed contrastive study is essential for geo-historical linguistic research, although it is ongoing.

Keywords: inflection, base modification, stem alternation, nDrapa, Qiangic, rGyalrongic, perspective

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A Preliminary Report on Bya.rum Ludling

Abstract: Ludling is a linguistic phenomenon in which the lexical forms of a language are systematically altered in order to "encode" them, and is often used as external evidence of language in phonological studies. Bya.rum ludling is a secret language artificially "encoded" according to the Tibetan Bya.rum dialect. Nowadays, this ludling is critically endangered, only two local elderly women can speak this ludling. In this paper, based on the first hand data that examines the Tibetan Bya.rum dialect and Bya.rum ludling, the operational strategies and rules of this ludling are depicted and analyzed. Based on the research results related to the typological study of ludling forms, we found that the ludling is mainly "encoded" by transpose bisyllabic consonants, and it also uses various other operational strategies. In this paper, we classify the operation strategies of the ludling into three categories: disyllabification (insertio), transposition, and replacement. The most important operation strategy is transposition, which includes transpose consonant, transpose place of articulation of consonant, and transpose pronunciation of consonant rules, etc. Replacement strategies include elimination of reduplication rule, first syllable consonant /z/ for /w/ rule and second syllable consonant /ʔ/ for /j/ rule. Among them, the rules for transpose consonant articulatory and transpose consonant pronunciation modes are phenomena that has not yet been confirmed in the current typological study of ludling operant forms, and they are of great value in supplementing and refining the study of the types of ludling forms. This paper also depicts and discusses for the first time the phenomenon of ludling in Tibetan, which lays a foundation for the future work of excavating, collecting and studying Tibetan ludlings.

Keywords: Bya.rum ludling, Bya.rum dialect, phonological rules.

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Aspect in Dpavsde Khams Tibetan

Dpavsde dialect, which belongs to the Southern group of Khams Tibetan, is spoken in Southwest China, Sichuan Province, Ganzi Tibetan Antonomous Prefecture, Yajiang County, Malangcuo Town, Dpavsde village. The Dpavsde aspectual system can be primarily analyzed as marking a three-way contrast between perfective, imperfective, and resultative. The analysis of aspectual system in Dpavsde is based on situation types and their interactions. Some verbs in Dpavsde Tibetan retain archaic stem alternations for tense-aspect. Perfective is expressed through /-zi^{53}.COP/. Its boundedness encompasses the initiation of events and their temporal termination. The perfective does not express whether or not the event is ultimately fully realized. It may also denote the completion of a change. It implies a past time reference. The imperfective /-ɣɔː^{55}.COP/ expresses senses of progressive, prospective, and habitual. The resultative is expressed by /-zi^{53}.EXI/. It expresses a resultant state caused by an event or the continuation of the event, itself, that starts before the reference time. The resultative can be categorized into subject-oriented, object-oriented, and other-constituent-oriented resultatives according to the referential relationship with the preceding event. The future tense in Dpavsde is closely related to modality in imminent, inferential future and programmatic future. Sentence-final auxiliary verbs, which are cognate with copulas and existential verbs, express egophoricity and certainty. Additionally, Dpavsde Tibetan also has linking morphemes that express aspectuality which are closely related to nominalization. /-zi^{53}/ as a nominalizer is not constrained by past time, but it does not occur in resultative contexts. The existential verb <snang> is used as imperfective in Kham dialect of Yajiang and Muri Tibetan.

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The cultural connotation of semantics of Erbi

"Erbi" is a word in Yi language that means "proverb poem," which roughly corresponds to the "poetry" and "speech" in "The Analects of Confucius. It consists of short, concise, and compressed idiomatic expressions or short sentences, which reflect the worldview, values, social practical experience, and wisdom of struggle of the Yi people. For thousands of years, it has been widely circulated and used in the oral and written works of the Yi people, like colorful flowers blooming in every corner of the vast world of folk art, hailed as the "salt in language" and the "splendid flowers in the folk literature treasury." "Erbi" covers a wide range of content, has beautiful forms, and is numerous, involving all aspects of things, phenomena, principles, knowledge, etc. There are corresponding "Erbi" for production activities, historical culture, astronomy and geography, political economy, philosophical thoughts, ethics and morals, local customs, etc. It has been continuously summarized, refined, and enriched by the hardworking and courageous Yi people, as well as outstanding literati and scholars in the long history. "Erbi" with its unique language form and rhythm plays a significant role in all aspects of Yi social life with its concise, lively, and vivid ideological content. Yi "Erbi" not only has a long history and inclusiveness in thought, but also has a high degree of originality and uniqueness, regarding understanding traditional cultural "Erbi" as grasping the key to life. Learning traditional cultural "Erbi" requires one to consciously reflect on our past efforts in various learning and practical activities, understand, clarify, and master the precious essence of Yi culture, deeply rooted in our own hearts, and feel joy and pride because of it. Of course, it is impossible for a single article to fully explain the cultural wisdom contained in "Erbi." Here we briefly summarize some of the cultural wisdom contained in some "Erbi": to understand the objective laws of development, absorb the experiences and lessons of predecessors, increase one's knowledge and wisdom, so as to better understand oneself and grasp the present and future of life. The kinds of wisdom “Erbi” conveys can be summarized below.

Religious and Ethical Concepts: Ancestor worship holds a very important position in the entire religious belief of the Yi people in Liangshan. Ancestor worship is based on the concept of the immortality of the soul. The Yi people believe that after the ancestors pass away, although the body is cremated, they still directly influence the production, life, and even life of their descendants. Therefore, a religious consciousness of ancestor worship arises.

Ethical and Moral Concepts: Social ethics and morals: 1. Take goodness as the basis and promote goodness while abandoning evil. 2. Pursue fame when seeing profit; disgrace if not. Marital and family ethics and morals: 1. Family ethics emphasize filial piety and respect for parents, as well as obedience to parental commands. 2. Family ethics and morals emphasize the unity and harmony between husband and wife.

Dialectical Philosophical Ideas: Simple dialectical thoughts: 1. The concept of differences in all things. 2. The contradictory view of coexistence. 3. The view of

change and development in positive and negative transformations.

Positive and Negative Cultural Implications: "Erbi" are the ancient teachings, maxims, and proverbs of the sages, mainly discussing life philosophy and ways of dealing with things, which are positive and positive. Of course, since it is human thought and concepts, inevitably some are positive and negative, and some may be purely negative.

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Prefixes of Hani Language: History and Development

Abstract: Some traces of the Proto-Tibeto-Burman prefixes can be seen in Hani language, such as *s- prefix; At the same time, there are some prefixes left over from the Proto-Lolo-Burmese stage, such as *k- prefix; in addition, there are prefixes that emerged during the Common-Hani stage, as well as prefixes that developed internally within different dialects after the Hani language diversified. In Hani a new causative prefix bi33- from bi31 "to give" has been created as the verb causative prefix *s- fades away. The *k- prefix, though no longer productive, is preserved in front of many animal nouns. A special change occurs when the *k- prefix is placed before syllables with the liquid initial *r, which can be observed in some animal names and a small number of verbs. Although there appears to be this prefix in the word "Hani", a dialectal comparison shows that the prefix of the word "Hani" does not come from the animal *k- prefix. In addition, the prefixes of Hani language include a31-/a55 -, jo33-, si31-, etc. Among them, a31-/a55- has the function of expressing the kinship terms, body parts, nominalization, and also for interrogative pronouns and interjections; the jo33- prefix has a nominalization function, and in different dialects, the usage of a31/55- prefix and jo33- prefix has been interchanged in some words; the si31- originates from the word si31 "fruit" and mainly appears in words related to fruits. Additionally, there are a number of prefixes that appear sporadically in different dialects, the function and origin of which have become relatively obscure.

Key words: Hani-Language Prefixes Lolo-Burmese

哈尼语的前缀：历史与发展

摘要：在哈尼语的前缀中有部分原始藏缅语时期前缀的遗留痕迹，如*s-前缀的遗留痕迹；同时有部分缅彝语阶段遗留下来的前缀，如*k-前缀；另外还有共同哈尼语阶段产生的前缀以及哈尼语分化成不同方言后，各方言内部产生的前缀。在哈尼语中随着动词使动前缀*s-遗留的逐渐消失，一个来自 bi31“给”的新使动前缀 bi33-已经产生。*k-前缀虽然已经失去能产性，但是在很多动物名词前有所保留。*k-前缀置于以流音*r 为辅音的音节前时会发生特殊结合变化，这种变化可以在在部分动物名称和

少量动词中观察到。虽然哈尼族自称中也有这个前缀，但是通过方言对比可以发现“哈尼”一词的前缀不是来自表示的动物的*k-前缀。除此之外，哈尼语的前缀还有 a31/55-、jo33-、si31-等，其中 a31-/a55-前缀，有表示亲属称谓、身体部位、名词化以及作为疑问代词和感叹词前缀等作用；jo33-前缀有名词化作用，在不同方言中，a31/55-前缀和 jo33-前缀的使用在有的词中发生了替换；si31-来自“果实”一词，主要出现在水果类词汇中。另外，还有一些在不同方言中零星出现的前缀，这些前缀的功能和来源已经变得比较模糊。

关键词：哈尼语　前缀　缅彝语

哈尼语属于藏缅语族缅彝语支语言，分布范围从中国滇北一直延伸到中南半岛北部山区。中国国内一般将哈尼语分为哈雅方言、豪白方言和碧卡方言。本文讨论的范围为哈雅方言（哈尼话和阿卡话）和豪白方言（峨山和尼话）[1]。

Wolfenden（1929）较早分析了书面藏文、克钦语、钦语等藏缅语言中存在的前缀。Benedict（1972）《汉藏语概论》系统总结和构拟了藏缅语历史上的七个前缀*s-、*r-、*b-、*g-、*d-、*m-和*a-，并说明了各个前缀的语法内涵或语义内涵。例如：*s-前缀内涵[2]：directive, causative, intensive;parts of body, animal。*a-前缀内涵：pronominal prefix, kinship terms, parts of body, 3rd person pronoun等等。这些前缀中的大部分在哈尼语中已经脱落消失变得无迹可寻，只有如*s-、*a-等两个前缀在现代哈尼语中留下痕迹。

一、*s-前缀在哈尼语中的遗留

Benedict（1972）认为原始藏缅语*s-前缀有使动前缀、身体部位前缀、动物名称前缀等功能，Matisoff（2003）进一步说明了表示身体部位或动物名称前缀*s-是由原始藏缅语*sya“肉”一词弱化而来。

1、*s-使动前缀

与众多缅彝语言一样，哈尼语中*s-使动前缀已经不独立存在也丧失了能产性，*s-前缀通过影响动词辅音清浊或送气留下痕迹。在缅语和彝语等语言中，这样对立的动词对还保留较多，但在哈尼语中这样对立的动词对逐渐消失，只有少量动词还有保留，举例如下：

	自动	使动	自动	使动	自动	使动
词义	毁坏、坍塌	弄坏、拆房	掉落	下（蛋）	弯曲	弄弯
绿春哈尼	bja̱33	pja̱33	ga33	kha33/ça33	ɣu̱31	xu̱31
阿卡	bja̱33	pja̱33	ga33	kha33	ɣo̱31	xo̱31
峨山和尼	pa̱33	pha̱33	ka33	kha33	ku̱31	fu̱31
缅文转写	pjak	phjak	kja.	khja.	kɔk	khɔk

续表

	自动	使动	自动	使动	自动	使动
词义	松脱、挣脱	放开、放脱	裂开、破裂	破、劈	散开	展开、开口

[1] 本文中使用的哈雅方言哈尼次方言为红河哈尼族彝族自治州绿春县大寨哈尼话，雅尼次方言为西双版纳傣族自治州州勐海县苏湖阿卡话，豪白方言为玉溪市峨山彝族自治县县岔河新寨和尼话。

[2] Benedict, P. K. 1972, Sino-Tibetan: a Conspectus. Cambridge.pp.105-123.

绿春哈尼	bjɛ31	phjɛ31	bɛ̲31	pɛ̲31	bjɛ33	phjɛ33
阿卡	(phɛ31)	phjɛ31	—	pɛ̲31	—	—
峨山和尼	pe31	phe31	pɛ̲31	phɛ̲31	pe33	
缅文转写	—	—	—	—	—	—

随着*s-前缀及其遗留的不断消亡，哈尼语中出现了新的使动前缀 bi33（pi33）来继续表达使动范畴，该前缀是 bi31（pi31）的弱化形式，本意为“给”。bi33/pi33 前缀有很大的能产性，可以加在动词和部分形容词前，例如：

峨山和尼话：

tsa31“吃”→ pi33tsa31“使吃、喂”

to55“喝”→ pi33to55“使喝”

ʑɛ̲31“醉”→pi33ʑɛ̲31“使醉”

绿春哈尼话：

dza31“吃”→ bi33dza31“使吃、喂”

do55“喝”→ bi33do55“使喝”

sha55“舒畅”→ bi33sha55“使舒畅”

mɯ31“好”→ bi33mɯ31“使好”

si55“死亡”→ bi33si55“使死亡”

2、来自*sya“肉”的前缀作为身体器官前缀

在哈尼语中，部分身体器官词汇有“肉”一词作为前缀，其中在峨山和尼话中，当前缀与流音词根结合时发生合音（“骨头”），如：

词义	绿春哈尼	阿卡	峨山和尼
大腿	sha31phja31	ɕa31phja31	sa31pha31
肺	sha31po̲31	ɕa31po̲31	sa31pho̲31
肝	sha31tshɔ31	ɕa31tshã31	sa31tsho31
皮肤	sha31gɯ55	ɕa31xo̲33	sa31kɯ55
筋	sha31gu31	ɕa31gu31	sa31ku31
骨头	sha31jø31	ɕa31jø31	sai31

二、*k-前缀情况

*k-前缀在书面缅文和部分缅语方言以及哈尼语等缅彝语中中均有发现。在缅文中，由于*k-前缀与以流音为辅音的词根结合时往往变成复辅音，从而可以从缅文拼写中观察到*k-前缀留下的痕迹，*k-与其他辅音开头的词根结合的情况在书面缅文中已无迹可寻，但可以在部分缅语方言如蓬方言（hpun）中观察到。一般认为*k-前缀在缅彝语中是一个动物名词前缀，但其词源不详。在哈尼语中，除了动物名词，其他部分名词中也有发现*k-前缀，从与缅文的对比来看，我们还可以发现零星的动词或形容词在历史上可能也有*k-前缀。

在哈尼语中，*k-前缀的变化也可以分为*k-前缀加在非*r 辅音开头的词根前以及*k-前缀与*r 辅音开头词根结合两种情况。

1、当*k-前缀加在非*r 辅音开头的词根前时，*k-前缀不影响词根辅音演变，*k-前缀以一个单独音节的形式出现在词根之前。需要注意的是，在绿春哈尼话中，前缀会受到相邻元音的影响，部分词汇中前缀的元音被后一音节元音逆同化，如“鹿”“熊”等词，如：

词义	绿春哈尼	阿卡	峨山和尼	缅文转写
蛙	xa31pha31	xa31pha31	xa31pha31	pha：
狼豺	xe31e55	xa31jɛ55	xa31xɛ55	-
虎	xa31la31	xa31la31	xa31ɬa31	kja：
豹	xa31zɿ31	xa31zɯ31	xa̱31zɻ31	sats
麻雀	xa31dza55	xa31dʑa55	xa31tsa55	tsa
鹰	xa31dze55	xa31dze55	xa31tɕe55	-
鹿	xe31tsɛ̱33	xa31tsɛ̱33	-	tshat
熊	xɔ31 ɔ55	xa31hm̩55	-	wam

这个动物在缅语蓬方言（北部）中也可以发现这个的前缀[3]：

kălà“老虎”

kătsúi“鹰”

kă s(h)áʔ“麻雀”

khăʀòʔ“老鼠”

kălòʔ“石头”

kălì “牛”

kălàiʔ“乌龟”等等。

另外该前缀在嘉绒语等语言中也存在，如嘉绒语中出现在动物名称前的词汇性前缀 qa-[4]，如：

qa-ɕpa“青蛙”

qa-par“豺狗”

qa-rtshɤs“鹿”

qro“蚂蚁”等等。

过去一般认为哈尼族的自称 xa31ɳ̊i31 一词的前缀也来自动物前缀，有强而有力之意，但是通过对比哈尼语不同方言可以看到在一些方言中，哈尼族自称的前缀和动物前缀并不一样，有可能在哈尼次方言或其他一些土语中两个前缀都混同为 xa31，从而造成了“哈尼”族称和动物前缀相同的“假象”，在绿春哈尼话和峨山和尼话中，动物前缀和自称前缀是一致的，但是在阿卡话和禄劝和尼话中演变路径却不同，如：

	哈雅方言		豪白方言	
词义	绿春哈尼	阿卡	峨山和尼	禄劝和尼[5]
自称	xa31ɳ̊i31	za31ɳ̊i31	xa31ɳ̊i31	xo31ɳ̊i31
蛙	xa31pha31	xa31pha31	xa31pha31	kha31pha31
虎	xa31la31	xa31la31	xa31ɬa31	kha3ɬa31
鹰	xa31dze55	xa31dze55	xa31tɕe55	kha31tse55

在哈尼语中，该前缀除了在动物名称词汇中出现以外，还在一些植物名称中出现，在绿春哈尼话中，部分前缀的元音发生了变化。值得注意的是有些 xa31-前缀是来自“竹”类的 xa31，有的来自用“苦”xa31 味命名的植物名称。来自

3 蓬方言材料引自 STEDT 数据库，网址：stedt.berkeley.edu.

4 （法）向柏霖著. 嘉绒语研究[M]. 北京：民族出版社, 2008.9.第 52 页.

5 禄劝和尼话引自 Bradley, D.2001 年国际汉藏语学术研讨会会议论文。语料来自昆明市禄劝彝族苗族自治县小梅兰村。

“竹”类的 xa31 如绿春哈尼话 xa31sa33“毛竹”，但是来自“苦”味的 xa31 类植物难以辨别，因为植物常常带有苦味，无法判断 xa31-前缀是否来自历史上的*k-前缀或者只是根据其味道命名，如下表中部分植物：

词义	绿春哈尼	阿卡	峨山和尼	缅文转写
蕨菜	xa31da55	da55lɛ̱33	xa31ta55	-
蒜	xa31she55	se55phju55	xa31ɕe55	swan
水冬瓜树	xe31n̥ø31	xa31n̥ø31	xa31n̥i31	-
麻栗树	xe31tu̱31	xa31thu31	-	-
泡木树	xe31ba33	xa31ba33	-	-

在其他一些词汇中也有零星发现可能来自*k-的前缀，其中“石头”一词缅文*k-前缀与词根流音声母合并成为复辅音声母故得到保留，在峨山和尼话中，“衣服”一词也有的村寨方言为*k-前缀，但是也有的村为前缀 a-，可能发生了前缀替换，该词可以在毕苏语等亲属语言中找到同源词，如毕苏语 kha31lau33“衣服”，品语ʔaŋ33klom45“衣服”，如：

词义	绿春哈尼	阿卡	峨山和尼	缅文转写
灰尘	xa31lɛ55	xa31lɛ55	xa31ɬi55	-
糠	xa31phɯ31	xa31phɯ31	xa31phɯ31	phway：
石头	xa31lu̱33	xa31lo33	ɬo33po31	kjɔk
火炭	xa31ɣɤ31	xa31ɣɤ31	tsha31khɯ31	-
布	xa31pha55	（sa31pha55）	xa31pha55	-
衣服	-	-	xa31ɬu55/a31ɬu55	-

2、*k-前缀加在以*r 为辅音的词根之前时，*k-前缀往往会影响词根辅音的演变。在缅甸语中，前缀与以流音*r、*l、*y 等为辅音的词根结合时，前缀和词根辅音往往合并成为相应的复辅音*kr、*kl、*ky 等，因此缅甸语中部分*k-前缀得到保留。在哈尼语中，前缀与词根辅音并不是结合成为相应的复辅音，而是作为一个新整体演变为辅音 h；在绿春哈尼话和峨山和尼话中，h 和来自原始*k 的 x 已经合并，但在阿卡话中仍保持对立。可以发现，*k-前缀在部分语言的部分词汇中脱落或被其他前缀替换，如阿卡话“水蛭”，缅文“蚂蚁”等。

词义	绿春哈尼	阿卡	峨山和尼	缅文转写
鸡	a31xa33	ja̱33	xa̱33	krak
鼠	xo33-	ho33	fu̱33（xu̱33）	krwak
水蛭	a31ɕɛ̱31	a31jɛ̱31	xɛ̱31	kjwat
蚂蚁	a55xu33	a55ho33	pi̱31fu̱33（xu̱33）	pu rwak
贝壳	xɤ55	u55	xɯ55	krwe

在缅语中，前缀与以流音*r-、*l-、*y-等为辅音的词根结合时，*k-r-、*k-l-、*k-y-前缀和词根辅音合并成为相应的复辅音*kr-、*kl-、*ky-，但在哈尼语中，*k-r-、*k-l-、*k-y-变化与原本复辅音*kr-、*kl-、*ky-变化不同，以*k-r-和*kr-为例对比如下：

形式	词义	缅文	绿春哈尼	阿卡	峨山和尼
*k-r-	鼠	krwak	xu33-	ho-	fu̱33-
*k-r-	鸡	krak	xa33	ja̱33	xa̱33

*gr-	怕	krɔk	gu̱33	go̱33	ku̱33
*kr-	六	khrɔk	ku̱31	ko̱31	khu̱31

由上面的变化规律，我们可以进一步发现，有一些在缅文中声母为 kr-的动词或形容词，在哈尼语中表现出和*k-r-一致的演变关系，这些动词或形容词在历史上也应该是由一个*k-前缀加以流音为声母的词根构成的。例如：

词义	缅文转写	绿春哈尼	阿卡	峨山和尼
看	kraɲ.	xu33	hɔ33	xu33（豪尼话）
大	kri：	xɯ31	hɯ31	xɯ31

三、*a-前缀

Benedict（1972）认为在原始藏缅语中*a-前缀有亲属关系词、人称代词前缀、身体部位前缀等功能。在哈尼语中 a 前缀和原始藏缅语一样有亲属关系词、人称代词前缀、身体部位前缀等功能，但除此之外，哈尼语中还有一些 a 前缀是后起的，不与其他亲属语言同源，有部分在哈尼语内部不同方言之间也不同源。在哈尼语中 a 前缀出现在 31 和 55 两个声调中。

1、亲属关系词。在亲属词上哈尼语不同方言土语都普遍使用 a-前缀，可见 a-前缀在表示亲属称谓上的历史悠久性，例如：

词义	绿春哈尼	阿卡	峨山和尼
妈妈	a31ma33	a31ma33	a31ma33
爸爸	a31da33	a31da33	a31ba31
弟弟	a31n̥i55	a31n̥i55	a31n̥i55
姑姑	a31xu31	a31xo31	a55xo31
姨婶	a31mɯ33	a31mɯ33	a55mɯ33
姐夫	a31sɔ31	a31sã31	a31so31
舅舅	a31ɣø33	a31ɣø33	a55kɛ33
姑爷	a31za31	a31za31	a31za31

2、动物以及植物名称中也有 a-前缀，但值得注意的是使用具有方言差异性，一些动物如狗、猪、牛等在哈雅方言中普遍使用前缀，但是在豪白方言的峨山和尼话中，均不加前缀 a-，可见这些前缀是哈雅方言词汇双音节化后才加上的前缀。另外也有前缀替换，如蟑螂和蚂蚁两词在峨山和尼话中前缀不是 a-，而是来自“虫”意的 pi31，以表示他们属于虫类。如：

词义	绿春哈尼	阿卡	峨山和尼
狗	a31khɯ31	a31khɯ31	khɯ31
猪	a31ɣa̱31	a31ja̱31	va̱31
牛	a31n̥u31	a31n̥o31	nu31
猫	a55mi55	a55mi55	a55n̥i55
猴	a55mju̱31	a55mjo̱31	a55mu̱31
螃蟹	a55kha33	a55kha33	a55kha33
蟑螂	a55phja33	a55phja33	pi31pha̱33
蚂蚁	a55xu33	a55ho33	pi̱31fu̱33
臭虫	a31go̱33	a31gɔ̱33	pi31ko̱33

观音土	a31nɔ31	a55nã31	a31no31
刺	a55kɔ33	a31gã33	a55ko33
花	a55jɛ̲33	a55jɛ̲33	zo33vɛ̲33
果子	a55shi31	a55si31	zo33ɕi31
瘪壳	a55xo̲31	a55xo̲31	zo33xo̲31

3、身体部位词中的前缀 a-与以上所述的动物中的前缀 a-一样，具有方言差异，在豪白方言的峨山和尼话中，有的部位不加前缀 a-，如“手”，另外同样存在前缀替换，如“肢体”一词，峨山和尼话使用 zo33 前缀（该前缀见下文 jo33 部分）。

词义	绿春哈尼	阿卡	峨山和尼
手	a31la̲31	a31la̲31	la̲31
脚	a31khɯ55	a31khɯ55	a55khɯ55
肢体	a31la̲31	a31la̲31	zo33la̲31
乳房	a31tshø55	a31tshø55	a55tsu̲33
阴茎	a31lø31	a31lø31	—

4、方位词以及时间词

词义	绿春哈尼	阿卡	峨山和尼
上	a31ta̲33	xø55ta̲33	a31tha̲33
下	a31u̲33	la̲31o̲33	a31vu̲31
前	xu31the55	a31the55	a55xo31
以后	a31kha55	a31kha55	a55no31
刚刚	e31si33	a31sø33	a31sɤ33

5、疑问代词

词义	阿卡	峨山和尼	绿春哈尼
何时	a31mjã33	a31mo33	（xa55tha31）
谁	a31su55	a31ɕi55	a31so55
哪里	a31ga55	a31ta33	xa55ge33
怎么	a31dʑe31	a55me55	xa55me55

6、感叹词和语气词

词义	绿春哈尼	阿卡	峨山和尼
感叹词和语气词	a31me31 呀（惊叹） a31tshɳ31 嗷（疼痛） a31la31 哟（无奈） a31la31 嘎（嘱咐）	a31lo31 啊咯 a31di33da33o55 啊呀	a31me31 呀（惊叹） a31ʑa31 哎（无奈） a31mo31 哟（怜惜） a33jo33 嗷（疼痛） a31jo31 唉（厌烦） a31la31 嘎（嘱咐）

除了以上情况外，在绿春哈尼话等一些方言中，在人称代词、形容词、连词等词类前也可以加 a 前缀，如绿春哈尼话 a31jo31“他”，a31ga̲33“冷”，a55nɛ55 因果连词。在峨山和尼话中，一些颜色词也可以加 a 前缀，如 a55phu55“白”，

a55sɻ55“黄”，a55nạ33“黑”，但是红色和绿色的前缀却不是 a，如 phi55n̥e55“红”，tsha31n̥i55“绿”，这两个前缀来源不详。

四、哈尼语创新前缀 jo33

jo33 前缀（峨山和尼话为 zo33）在哈尼语中使用较多，且该前缀目前不见于亲属语言中，可见该前缀是哈尼语内部自我创新产生的，该前缀主要作用是名词化或使单音节名词双音节化，可以加在名词、形容词、动词等词性的词根前构成名词，如：

词义	绿春哈尼	阿卡	峨山和尼
主人	jo33shɔ55	a55sã55	zo33so55
汗垢	jo33ɕe̱33	jɔ33jɛ̱33	zo33xe̱33
活物	jo33de̱31	jɔ33dɛ̱31	zo33te̱31
新物	jo33sɻ31	jɔ33ɕɯ̱31	zo33sɻ31
旧物	jo33ø55	jɔ33ø55	zo33li55
生食	jo33dzɔ31	jɔ33dʑm̩31	zo33tso31
熟物	jo33mjɔ33	jɔ33dʑạ31	zo33mo33
大的	jo33xɯ31	jɔ33xɯ31	zo33xɯ31
小的	jo33n̥i55	jɔ33n̥i55	zo33n̥i55

jo33 前缀和 a 前缀都有名词化或使单音节名词双音节化的功能，因此在不同方言的部分词汇中可以看到两个前缀的替换现象，如峨山和尼话中以下词汇与哈雅方言的土语相比发生前缀交替：

词义	绿春哈尼	阿卡	峨山和尼
花	a31jɛ̱33	a55jɛ̱33	zo33ve̱33
种子	a55zø31	a55jø31	zo33ji31
果子	a55shi31	a55si31	zo33ɕi31
果壳	a55xo̱31	a31xɔ̱31	zo33xo̱31

jo33 前缀有很高的能产性，在阿卡语中，程度副词“最”也可以和该前缀结合，如 jɔ33xa55“最”。

五、其他前缀

在哈尼语中还有一些前缀是意义来源较为明确的，如来自“果子”一词的 si31-（峨山和尼话为ɕi31-），该前缀主要出现在表示果子类的词汇中，例如：

词义	绿春哈尼	阿卡	峨山和尼
黄瓜	shi31xu̱31	si31xo31	ɕi31xo31
山胡椒	shi31bi55	si31bi55	ɕi31pi55
李子	shi31tɕha31	si31tsha31	ɕi31tsha31
橘子	shi31lø55	si31lø55	ɕi31li31
桃子	shi31ɣɔ31	si31jm̩31	ɕĩ31
苦果	shi31xa31	si31xa31	ɕi31xa31

多依果	shi31phø31	si31phø31[6]	ɕi31phi31
杨梅	shi31so̱33	si31mo33	ɕi̱31so̱33

另外又如蔬菜类有关的前缀ɣo31-（ku31-），如：

词义	绿春哈尼	阿卡	峨山和尼
萝卜	ɣo31phu55	ɣɔ31bu33	ku31phu55
菜/青菜	ɣo31n̥u55	ɣɔ31n̥ø55	ku31n̥i55
菜/青菜	ɣo31pa̱31	ɣɔ31pa̱31	ku31pa̱31
	ɣo31so55	ɣɔ31phu31	—
	（胡椒）	（卷心菜）	
	ɣo31n̥i55	ɣɔ31dɔ̱33	—
	（苋菜）	（茼蒿菜）	

有些前缀哈尼语分化后不同方言内部形成的，例如峨山和尼话中来自“虫”的前缀 pi31-，主要出现在虫类名词中，如：

虫子 pi31tsu31

蚂蚁 pi̱31fu̱33

蟑螂 pi31pha̱33

壁虱 pi31ko33

毛毛虫 pi̱31mu̱31

萤火虫 pi31ŋa̱33la̱33ŋa̱33

蜈蚣 pi̱31mu̱31khɯ55tsɻ55

又如峨山和尼话的 ka31-，该前缀出现在和面食有关的词汇中，来自“荞”一词，但该前缀已经虚化，带该前缀的词已经和“荞”无关，当表达“荞面”一词时不能只说 ka31me33，而是说 ka31 ka31me33，可见 ka31me33 一词虽然带有前缀 ka31“荞”，但是其词义已经变为“面”，这类词有：

面粉 ka31me33

面团 ka31to31

汤圆 ka31le33

年糕 ka31khu55

疙瘩饭 ka̱31tsa̱33

饼子 ka̱31pa̱33

粥 ka̱31ne̱31

石磨；碾米机 ka̱31tɕi̱33

另外，还有一些零星出现的前缀，如“胆脏”：phi31khɯ55（绿春哈尼话），phja31khɯ55（阿卡话），phi31khɯ55（峨山和尼话）；“月亮”：ba33la33（绿春哈尼话）ba33la33（阿卡话）pa33la33（峨山和尼话）。还有一些个别方言内部零星出现的前缀，例如峨山和尼话 pi31kɯ55“星星”一词的前缀 pi31，“星星”一词哈雅方言为 a 前缀，如 a31gɯ55 哈尼话，a31gɯ55 阿卡话。与峨山和尼话一样，一些南部彝语组的语言语言也可以发现该同源前缀，如桑孔语 pe31kɯ557。除此之外，“叶子”一词在峨山和尼话中也带有与其他方言不同的前缀，如：xa̱33pha̱31（峨山和尼话），a55pa̱31（绿春哈尼话），a55pa̱31（阿

[6] 有的土语又叫 a31kha31phø31 或 tɕhe55lɯ55。

[7] 李永燧著. 桑孔语研究[M]. 北京：中央民族大学出版社, 2002.10.第 282 页.

卡话）。峨山和尼话中“蛋”一词前缀也来源不明，如 pi55vu̱33（峨山和尼话），a55u̱33（绿春哈尼话），a55u̱33（阿卡话）。

六、总结

哈尼语的前缀有不同的层次，既有原始藏缅语时期前缀遗留的痕迹，又有缅彝语阶段遗留下来的前缀，还有共同哈尼语阶段产生的前缀以及哈尼语分化成不同方言后各方言内部产生的前缀。在哈尼语中，不同的前缀往往经历前缀产生、前缀弱化、前缀消失、再产生新前缀这样的循环发展过程，在这样的过程中，还常常发生前缀替换情况。除了一些成系统且内涵较为明确的前缀外，在哈尼语不同方言中还有部分零星出现且内涵所指不明的前缀，这些前缀的来源和功能已经变得比较模糊，难以考证。

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A Preliminary Study on Logophoricity Pronouns in Tibetan Dialects and Surrounding Languages

Abstract:

Logophoricity is a special anaphoric phenomenon found mainly in reported speech and similar constructions. A typical case can be presented by Ewe. In this West African language, the **logophoric pronoun** "*ye*", comparing with that the ordinary third person pronoun "*e*" refers to another person, refers specifically to the speaker himself in the main clause:

(1) a. Kofi be **yè**-dzo
Kofi say **LOG**-leave
Kofi$_i$ said that he$_i$ left.
b. Kofi be **e**-dzo
Kofi say **3SG**-leave
Kofi$_i$ said that he/she$_j$ left. (Clements 1975: 142)

In addition to logophoric pronouns, there are another two common means of expressing logophoricity, i.e **logophoric verb affixes** and **long-distance reflexive pronouns** (LDRP). According to some generalizations (Huang 2000: 172-199, Ameka 2017, etc.), the languages of Africa are characterized by the presence of specific logophoric pronouns or verb affixes, while East Asian languages mainly use LDRP to express logophoricity incidentally, e.g "*ziji* (自己)" in Mandarin Chinese.

However, according to our limited knowledge, there are actually some languages in China that have specific logophoric pronouns, or have specific pronouns, not LPRP, that can conditionally serve as logophoric function. It is just that in the past there has been little attention paid to this, and there have been few case descriptions and comparative studies.

Therefore, **this article aims to investigate which languages in and around China have specific logophoric pronouns or specific pronouns conditionally serve as logophoric function** (named as "logophoricity pronouns (LP)" collectively). We limit our scope of investigation as follow: 1) Tibetan dialects (including Baima, 18); 2) various languages and Chinese dialects in Gansu-Qinghai area (10); 3) Qiangic languages (11); 4) Yi-branch languages (15). We focused on narrative discourse.

The main conclusions are as follow:

(1) The relevant languages are mainly distributed in **two core areas**. One is centered on the Amdo Tibetan, and the other is centered on the northern Yi dialect.

(2) Twelve languages have LP. They involve Tibeto-Burman, Mongolian, Turkic, and Chinese dialects with mixed language characteristics. See the table below.

(3) There are two clear sources of LP, i.e reflexive pronouns (RP) and third-person pronouns (3p). But the etymology of LP is still unclear in some languages.

	Word form	Etymology	Specificity	Obligatoriness	
				Quotation Pattern	Substitution
Nuosu Yi	i^{33}, etc.	?	+	indirect	No
Ersu	yò, etc.	RP	+	indirect	?
Baima (Pingwu)	$k^{h}ɯ^{53}$	3p	+	indirect	?
Amdo Tibetan	k^{h}o, mo	3p	+	indirect/direct	Yes
Zhoutun	t^{h}a	3p	+	indirect/direct	?
Wutun	t^{h}a	3p	+	direct/indirect	?
Bao'an (Tongren)	oroŋ, etc.	?	+	?	Yes
nDrapa	´t~~ɯ~~	?	+(?)	indirect/direct	?
Minya	tsé, etc,	RP	-	indirect/direct	No
Salar	izi/ezi	RP	-	indirect/direct	?
Western Yugur	uzi	RP	-	direct/indirect	?
Yushu Tibetan (Lab)	$k^{h}o^{H}$, mo^{L}	3p	-	indirect/direct	Yes

1. "Specificity" indicates whether the pronouns specifically serve as logophoric function.

2. "Obligatoriness" indicates that when the context for logophoricity appears, is it necessary to use the LP.

(4) LPs in these languages have some universals: a) they all refer to the speaker or the thinking subject of the quoted speech; b) they only appear when quoting the words or thoughts of a third person; c) they are consistent with the proposed implicational hierarchy of person of LP, i.e 3 > 2 > 1.

(5) All of these language have singular LPs, but only a few have dual and/or plural forms. They are consistent with the proposed implicational hierarchy of number, i.e singular > plural.

(6) There are different degrees of grammaticalization of LPs in these languages (reflected by "specificity" and "obligatoriness"). The highest degree is presented by Nuosu Yi and Ersu, and the lowest degree is presented by Yushu(Lab) Tibetan.

Keywords:

logophoricity, personal and reflexive pronouns, reported speech, grammaticalization

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An Acoustic Analysis of Meiteilon Affricates

Abstract

Meiteilon, also known as Meitei, ISO 639-3,mni, is a Tibeto-Burman language spoken in Manipur, a Northeast Indian State. Meiteilon affricates have been a constant area of re-analysis. Thoudam (1980), Bhatt & Ningomba (1997), Yashawanta (2000) analysed the sound segments as palatal plosives /c/ and /ɟ/. Chelliah (1997), Meitei (1998), Singh (2016), Ningthoujam (2023) analysed the sound segments as affricates. The conclusions of most of the analysis were drawn based on their auditory perception study. The current paper is one of the first attempts to provide an acoustic analysis of the affricate sound segments of Meiteilon. The main aim of the paper is to explore the phonetic cues by conducting an acoustic analysis. The current study provides evidences for Meiteilon affricate sound segments by analyzing the variables such as F1, F2, and F3 of all the preceding and following vowels that occur in the Maiteilon sound inventory. The study also investigates the plosive burst, the friction duration and other acoustic cues for identifying and quantifying affricate sound segments. The data for the study were collected from 12 native speakers, 6 males and 6 females who are between the ages of 22 and 38 years. A total of 244 tokens were recorded and analysed for the study. The data were recorded using the Roland R-09HR audio recorder in the studio environment of the Speech Analysis Lab of Humanities Block, Manipur University. The data were analysed using PRAAT software.

***Keywords*:** Meiteilon, Affricates, Acoustic-analysis, Plosive-burst, Vowel-transition

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The Types of Nusu Loanwords and Their Influence on Nusu Language

Abstract

In general,Nusu language has the largest number of Chinese borrowings, followed by Lisu language loanwords and Bai language loanwords. There are three types of loanwords: transliteration, free translation and semi-transliteration and semi-free translation.

The transliterated loanwords of Nusu language are basically full word borrowings, but they are still transformed according to the phonological characteristics of Nusu, for example, part of the nasal vowel endings of Chinese will become nasalized vowels of Nusu.

The free loanwords of Nusu language were created according to the original word formation of Nusu, that is, the morphemes of Nusu were modeled after Chinese loanwords, so they do not appear to be loanwords on the surface, and some people regard them as native words.

One of the morphemes in the semi-transliterated and semi-free loanwords of Nusu is Nusu, while the other is borrowed from foreign words, mostly from Chinese. Not only are the morphemes borrowed from Chinese, but the word order is the same as Chinese.

Keywords: The types; Nusu loanwords; Influence; Nusu language

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Phylogenetic evidence reveals early Kra-Dai divergence and dispersal in the late Holocene

The Kra-Dai language family (also known as Tai-Kadai) is spoken by nearly 100 million people and geographically distributed in a vast region encompassing South China, Mainland Southeast Asia (MSEA), and Northeast India. Their geographic distributions are surrounded by or intermingled with the settlements of the four other language families: Austronesian, Austroasiatic, Sino-Tibetan, and Hmong-Mien. The linguistic surveys reveal the predominance of Kra-Dai languages in the contact-induced convergence of linguistic structures and tremendous sociolinguistic importance in the MSEA *sprachbund* in the past 2000 years. Therefore, understanding the prehistory of Kra-Dai languages plays a crucial role in uncovering their complex demographic dynamics and socio-cultural interactions with surrounding ethnic populations in South China and MSEA.

In this study, we gathered and integrated lexical data from previously published literature and our first-hand linguistic fieldwork. Then, we identified 646 lexical cognate sets of 90 basic lexical items for 100 Kra-Dai languages. The sample size in this dataset is larger than that of the languages named as Kra-Dai or Tai-Kadai in Glottolog and Ethnologue databases.

Using our lexical database, we conducted a Bayesian phylogenetic analysis to reconstruct the relatedness and divergence time of Kra-Dai languages. According to our results, the linguistic relatedness of the five branches is in accordance with that proposed by Ostapirat and the initial divergence of Kra-Dai languages occurred approximately 4000 years before present (BP).

We also conducted discrete phylogeographic inference using the Bayesian phylogenetic comparative approaches to infer the dispersal routes. The Bayesian phylogeographic inference suggested that the coastal area (Guangxi-Guangdong provinces) was likely the dispersal center of Kra-Dai languages, and profiled the north-south and east-west dispersal routes which were consistent with previous genetic and cultural evidence.

To provide a more comprehensive understanding of the social and cultural context surrounding the Kra-Dai language divergence and dispersal, we integrated interdisciplinary evidence from linguistics, genetics, archaeology, paleoecology, and paleoclimatology to depict the evolutionary process of Kra-Dai languages. These results showed strong coupling of the linguistic and demographic dynamics with the changes in the paleoenvironmental context, and ultimately allowed us to briefly profile the prehistory of Kra-Dai-speaking-populations and their languages.

Overall, our findings offered a new perspective on the evolutionary dynamics of Kra-Dai languages and their contributions to shaping language diversity in East and Southeast Asia. By studying the evolutionary history of Kra-Dai languages, we could gain more insights into the present socio-cultural landscape and better understand the prehistory of these regions.

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Wh-questions, Focus, and Topic in Gyegu Tibetan

Wh-questions, focus, and topic are realized in a variety of ways cross-linguistically. While some languages displace focused elements to a specific position in the clause, other languages leave focused elements in-situ where they receive prosodic prominence and a focus interpretation. In the present study, I provide a preliminary investigation into wh-questions, focus, and topic in Gyegu Tibetan. The Gyegu dialect is a variety of Khams Tibetan spoken in Yushu City, Qinghai Province in the People's Republic of China. Although there are roughly 1,380,000 total speakers of Khams Tibetan (Eberhard et al. 2022), there appear to be no available estimates for the number of Gyegu speakers. This paper will first introduce relevant background literature and basic information about the Gyegu dialect's syntactic structure. Next, a detailed description of the structure and interpretation of wh-questions, focus, and topic will be presented. The data will then be analyzed using Büring's (2009) typology of focus and Samek-Lodovici's (2005) Stress-Focus constraint.

Transitive sentences in Gyegu Tibetan display an SOV word order, as seen in (1).

(1) SOV word order in Gyegu Tibetan.

ŋa ɕʰɛ̃ dʑoʔ tsʰoʔ
1SG wood break PST
'I chopped wood."

One common definition proposes that focus represents 'new information' and is juxtaposed with 'given information' or 'Presupposition' (Horvath 1986). Therefore, the answers to wh-questions, which represent new information in the discourse, fit the definition of focus. If focused phrases were displaced to a specific position within the clause, such as the left periphery, we would expect other word orders such as OSV to be possible in Gyegu Tibetan. However, such displacement does not occur, and both wh-words and focused phrases remain in-situ in Gyegu Tibetan, as seen in (2).

(2) Object wh-questions and answers with focused phrase capitalized.

Q: dʑaçi tɕə su thiʔ
Dʒaçi what ate PRF
'What did Dʒaçi eat?'

A: dʑaçi TSAMBA su thiʔ
Dʒaçi TSAMBA ate PRF
'Dʑaçi ate TSAMPA.'

Although focused phrases are not displaced, prosodic prominence of the focused phrase does play a role in Gyegu Tibetan. In terms of Büring's (2009) typology, Gyegu Tibetan would be classified as an 'boundary language', where the focused phrase remains in-situ and is marked by the insertion of a prosodic phrase boundary to the left or right of the focus (Büring 2009: 183).

It is therefore possible to apply Samek-Lodovici's (2005: 697) Stress-Focus (SF) constraint to the available data. The SF constraint operates within an Optimality Theory (OT) framework and is defined in (3).

(3) Stress-Focus (SF): For any XPf and YP in the focus domain of XPf, XPf is prosodically more prominent than YP.

This analysis can be directly applied to the Gyegu data, where it appears the focused phrase is always receiving prosodic prominence. The fact that focused XPs in Gyegu receive prosodic prominence indicates that this constraint is highly ranked.

Unlike wh-phrases and focus phrases, topics are displaced to a sentence-initial position, as seen in example (4), which demonstrates a topic-comment construction with the topic occupying a sentence initial position.

(4) Topic construction in Gyegu Tibetan.

wu tshaitʂə mʊr dʑa-mu ʐeʔ
Wu Caizheng 3SG.FEM Chinese-woman COP
'Wu Caizheng, she is Chinese.'

Although further investigation into wh-phrases, focus, and topic in Gyegu Tibetan is necessary, this paper provides a valuable starting point for future work and contributes to our understanding of the syntax of Gyegu Tibetan and Sino-Tibetan languages in general, but also furthers our understanding of the global typology and distribution of the different mechanisms by which languages employ wh-questions, focus, and topic constructions.

Keywords: Syntax, Focus, Wh-questions, Topic, Tibetan language

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Noteworthy Phonological Traits in 'Jol

A Tibetic Dialect of Bdechen County (Yunnan)

Abstract

This study focuses on the Tibetic dialect locally known as *'Jol skad*, spoken at 'Jol Town in Bdechen County, Bdechen Tibetan Autonomous Prefecture, Yunnan Province. Located in an ethnically complex Yunnan-Sichuan-Tibet border area, 'Jol phonology exhibits a number of notable traits that shape its distinct linguistic character. This research utilizes materials gathered during prolonged fieldwork to highlight certain salient features of the 'Jol phonological system from an areal perspective.

The typologically uncommon features of 'Jol segmental phonology include lack of distinctive voiceless aspirated fricatives prevalent in the Kham Tibetan area, while presence of a voiceless trill /r̥/ and voiceless palatal glide /j̊/, both being rarely attested in modern Tibetan dialects. Composed solely of open rhymes (V, CV, CV:, CṼ, CṼ:), the 'Jol syllable canon maintains a robust rhyme-length opposition applying to oral as well as nasal monophthongs and diphthongs.

In terms of phonological history, 'Jol also displays a number of extraordinary sound changes, such as (a) lexically determined split reflection of OT laterals **l-* (along with **gl-, *bl-, *rl-*) by /l/ ~ /j/, and **lh* by /l̥/ ~ /j̊/, (b) development of diphthongs from syllables closed by dental codas **-ar* > *-a:i, *-ad* >*ai* (c) reversal of vowel height reversal exemplified by **-ong(s)* > *-ũ:* while **-ung(s)* > *õ:*

Cognate identification and establishment of sound laws in 'Jol is often hampered by its many lexical items of obscure origin, matched by its equally striking morphosyntax, attributable possibly to intensive language contact in this area of complex ethnolinguistic interactions between speakers of Chinese, Tibetic, Qiangic, as well as Lolo-Burmese languages. All these idiosyncrasies will be borne in mind as we attempt to provide a more comprehensive understanding of 'Jol Tibetan phonology.

Keywords: Tibetic dialects of Yunnan, 'Jol, phonological typology and evolution

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The Regional Typological Characteristics of Serial-verb Constructions in the Gansu-Qinghai area

The Gansu-Qinghai linguistic areas mainly consists of multiple languages such as Chinese, Tibetan, and Altaic languages including Tu, Mongolian, Bao'an, Dongxiang, Sala, and Yugur. During deep contact among these languages, very typical regional typological characteristics in morphology and syntax have emerged, sharing many commonalities, with conjunctive structures being one of them.

Research on conjunctive structures reveals that Southern Chinese dialects (Gao Zengxia, 2003), Zhuang-Dong languages (He Yancheng, 2014; Zhou Guoyan, Zhu Dekang, 2015), and Miao-Yao languages (Yu Jinzhi, 2017) have highly developed conjunctive structures. In contrast, conjunctive structures in northern dialects, especially in Northwest Chinese and ethnic minority languages, are relatively less prominent. Liu Danqing (2015) indicates that conjunctive structures are a syntactic feature related to morphological types, primarily existing in languages with few morphemes and grammatical markers. In languages where conjunctive structures exist but are not prominent, the most common type involves the combination of "come/go" verbs with other verbs.

In Gansu-Qinghai Chinese dialects, the most typical conjunctive structure involves core verbs accompanied by directional verbs such as "come/go". Additionally, there are conjunctive structures formed by leading verbs, while other types of conjunctive structures are relatively scarce. However, the structure of auxiliary verbs is relatively developed, which is consistent with the situation in other languages of the Gansu-Qinghai region, and is the result of language contact.

Keywords: Gansu-Qinghai region; conjunctive structure; language contact; regional typology

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The Reconstruction of Old Hmong East-Qian's Initials

9 Hmong dialects were compared and 42 Old Hmong East-Qian's(OHEQ) Initials were reconstructed.

Most of the initials can be reconstructed directly by comparing the 9 dialects, but some must refer to reconstructions of old Hmong, such as *tɬ、*tɬj.

Comparing to Old Hmong(OH), OHEQ's initials changed a lot.

(1)**NC>*N if C is voiced. **NC>*C if N is voiceless. This is the biggest change from OH to OHEQ.

(2)**CL(j)>*tɬ(j). So OHEQ still has two consonant clusters initials.

(3) **Cr**Cj>*Cj. OHWQ has rich -j- medial initials. -j- not only influences the change of initials of modern dialects, but also the finals.

(4) **b、**d、**g>*p、*t、*k. OHEQ does not have voiced stops whose vot<0, but the syllables of OH's voiced initials is breathy voice in OHEQ.

(5)**ts^h>*s. So OHWQ does not have aspirated affricates.

(6) Voiceless stops, Aspirated stops, voiceless fricatives, voiced and voiceless nasals and laterals remain unchanged.

Comparing to OHEQ, modern dialects of Hmong East-Qian's(MHEQ) also changed in many aspects.

(1) OHEQ does not have *NC initials, most MHEQ dialects also does not have NC, but some dialects in south of East Qian have nz which developed from *mj，such as Rongjiang.

(2) OHEQ has *tɬ(j), only very few dialects of MHEQ have this initial. *tɬ(j) becomes ɬ(j) in most dialects of MHEQ, and ɬ becomes s in Jinping dialect.

(3) *Cj initials become affricates or fricatives in most MHEQ dialects，only Majiang dialect remain pj, p^hj and mj.

(4) *p，*t，*k developed from **b，**d，**g remain p, t, k in most dialects. Some dialects keep breathy voice, especially tone 4 and tone 6 syllables.In Sandu dialect, *p，*t，*k become p^h,t^h,q^h if in syllables of tone 6.

(5) *s becomes s^h and *ts becomes s in north East-Qian dialects, such as Kaili and Majiang.

(6) voiceless nasals and fricative laterals become aspirated in most north East-Qian dialects, and become voiced in south and east East-Qian dialects.

Key words: initial reconstruction historical comparing Hmong East-Qian

Table1 shows most OHWQ initial reconstructions and 3 dialects' corresponding initials.

Table 1

OH**	OHEQ*	Kaili	Majiang	Rongjiang
p,b,mp	p	p	p	p
ph	ph	ph	ph	ph
ʔm,m,mb ,ml	m	m	m	m
hm	m̥	m̥h	m	m

f	f	fh	fh/h	f/h
ʔw, w, wj, ʔr, r	v	v	v	v
pj, pr,	pj	ts	pj/p	ts
phr	phj	tsh	phj	s
mpr, mbr	mj	z	mj	nz
ts, nts	ts	s	s	s
dz, ndz	z	s	s	s
tsh, ntsh, s	s	sh	sh	s
tsj, ntsj, tshj, ntshj, sj	tsj	ɕ	ɕ	ɕ
tshj, ntshj, sj	sj	ɕh	ɕh	ɕ
dzj	zj	ɕ	ɕ	ɕ
t, d,nt	t	t	t	t
th, nth	th	th	th	th
mbl, ʔn, n, nd	n	n	n	n
hn	n̥	n̥h	n	n
hl	ɬ	ɬh	l	l
ʔl,l	l	l	l	l
pl, ql， qr, ɢl	tɬ	ɬ	ɬ	ɬ
tr, dr, ntr, kr, gr	tj	ʈ	ʈ	tɕ
nthr	thj	ʈh	ʈh	tɕh
ndr, ŋgr, ʔɲ, ɲ，ɲʷ， ŋ, ɲɟ, ŋgj	ɳ	ɳ	ɳ	ɳ
（hnj）hɲ	n̥j	n̥h	ɳ	ɳ
hlj	ɬj	ɬjh	ɭ	ɭ
ʔlj, lj	lj	ɭ	ɭ	ɭ
ʔj, j, plj, qr	ʑ	ʑ	ʑ	ʑ
plj, qr	tɬj	ɬj	ɬj	ɬj
c， kʷj ɟ, ɲc, k，kj, gj, ŋkj	c	tɕ	tɕ	tɕ
ch, kh， khj	ch	tɕh	tɕh	tɕh
kl， khl, g, G， ɢ, ɢ	k	k	k	k

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Local cases in Washul Tibetan

Abstract: This article presents local cases in Washul, a Tibetan dialect spoken in Honglong Town, Kela Town, and Xieluo Town, Yajiang County, Garzê Tibetan Autonomous Prefecture, Sichuan Province. The database used for analysis includes translation sentences and natural linguistic data, which were obtained by the author's fieldwork from July 2022 to March 2024.

Local cases express notions of location, destination, source and path. (Blake 2001:151) Tibetan languages possess a complex system of local cases, which is characterized by multiple marks and their diverse semantic functions. Previous studies, whether on classical Tibetan or the local cases of modern dialects, have primarily focused on the functional expansions of local cases into non-spatial domains. Hill (2011) provided a good example of a detailed examination of the spatial domain semantics of local cases. This article discovers that the local cases of Washul exhibit a relatively complex distribution of semantic functions in the spatial domain, which is unique. Washul uses two local cases, locative *na*, and allative *Ca* (*C* represents the coda of the preceding syllable, and if it is a vowel, it is pronounced as *ja*), with the genitive *Gə* (including three allomorphs *gə, kʰə, ɣə*) expressing source. However, the expression of location in Washul can be quite complex, and it is related to the type of verb and aspect. The location of the existential predicate *jɔ* and active verbs in imperfective aspect are marked by the locative case marker *na*, the location of stative verbs is marked by the allative case marker *Ca*, and the location of active verbs in perfective aspect is marked by the genitive case marker *Gə*, as shown in Table 1.

Furthermore, this article also introduces other semantic functions of the genitive case marker *Gə* (including possessors of attributive possession and the temporal locations) and the allative case marker *Ca* (including recipients, human goals, possessors of predictive possession, emotional targets, and temporal locations).

This research provides a reference for the analysis of the expression of location in Tibetan dialects, and an empirical basis for the future study of the grammaticalization of local cases.

Keywords: Washul Tibetan, Locative, Allative, Genitive

Verb types	Aspect	Source	Location	Destination
Stative		——	*Ca*	——
Active	Perfective	*(Gə)*	*(Gə)*	*Ca*
	Imperfective	*(Gə)*	*na*	*Ca*
Existential predicate		——	*na*	——

Table 1: Local cases in Washul Tibetan

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The prepositive and postpositive absolute degree adverbs in Xiangxi Gouliang Miao

This paper is a syntactic and semantic study of the absolute adverbs of degree in Xiangxi Miao. According to the word order relationship between degree adverbs and adjectives, the absolute degree adverbs in Xiangxi Miao language can be divided into prepositive and postpositive degree adverbs (The abbreviations pre-adverbs and post-adverbs are used below), as lan^{44} tshan^{42} " extraordinarily " in (1) and hin^{35} "very" in (2).

（1） men^{22} te^{42}te^{214} nen^{42} **lan^{44} tshan^{42}** tʂa^{53}.
CL kid DEM extraordinarily strong
The kid is extraordinarily strong.

（2） men^{22} te^{42}te^{214} nen^{42} tʂa^{53} **hin^{35}**!
CL kid DEM strong very
The kid is very strong!

Although similar uses of absolute degree adverbs have been studied in detail in Xiangxi Miao (Luo 1990; Yu 2011; Wu 2024), the grammatical properties of pre- and post- adverbs in Miao language have not received enough academic attention. In view of the current researches, this paper will take Fenghuang Guliang Miao language in western Hunan as an example to investigate the syntactic and semantic features of the pre- and post- adverbs in Miao language, try to clarify the grammatical attributes of these two types of degree adverbs, and explain their grammatical manifestations. This paper will discuss the following three questions: (1) What are the syntactic and semantic characters of the structure of “pre-adverb + adjective” and the structure of “adjective+ post-adverb”? (2) How to explain the syntactic and semantic differences between the two structures? (3) What is the linguistic typological significance of the two types of absolute degree adverbs in Guoliang Miao language?

By examining the grammatical properties of the two types of adverbs in Guliang Miao language, this paper concludes the following findings:

(1) The word order of absolute degree adverbs and adjectives in Guoliang Miao language is manifested in three forms: pre- adverb + adjectives; post-adverb+ adjective; pre- adverb + adjectives+ post-adverb.

(2) When cooccurring with adjectives, the pre- adverbs only express degree intensification, while post-adverbs express both degree intensification and the speaker's subjective evaluation. The semantic difference between the two kinds of degree adverbs depends on the difference in their grammatical attributes. The pre-adverb is a classical degree adverb, acting as the modifier of adjectives. Post-adverbs belong to mixed-content lexical items conveying both degree intensification and evaluation, and their grammatical properties are between degree adverbs and sentence final modal particles.

(3) The grammatical features of these two types of degree adverbs are universal in Miao-Yao languages, and the analysis of two types of degree adverbs in Guoliang Miao should also be applied to that of similar phenomena in other Miao-Yao languages.

Vowel Harmony in Uyug Tibetan

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Abstract:

Vowel harmony is a phenomenon in which potentially all vowels in adjacent moras or syllables within a domain, such as a phonological or morphological word, systematically agree with each other regarding to one or more articulatory features. Common features include [±high/ ±low], [±back], [±ATR] (Advanced Tongue Root) and [±round]. Many African languages, such as Akan and Yoruba, have vowel harmony in [ATR].

The present paper provides insights into the system of vowel harmony of Uyug Tibetan, a central dialect of Tibetan spoken in Namling County, Shigatse City, Tibet Autonomous Region. The findings demonstrate that Uyug Tibetan has a vowel system with ATR harmony, i.e. the vowels in Uyug Tibetan are divided into two harmony sets based on the Advanced Tongue Root feature. This process applies bidirectionally, i.e. [-ATR]/[+ATR] vowels cause preceding vowels to become [-ATR]/[+ATR] (regression) as well as following ones (progression). Its chief interest comes from the neutralization of /a/ and /ɛ/, which can both alternate with /e/.

The purpose of this paper is to provide an overview of vowel harmony in Uyug Tibetan in terms of a generative phonology.

The paper is organized as follows. Firstly, I investigate phonetic features of vowels in Uyug Tibetan. Secondly, I lay out the basic facts of Uyug Tibetan ATR-based vowel harmony. Thirdly, I examine domain and directions of vowel harmony in Uyug Tibetan. The final section contains some concluding remarks.

Keywords: Vowel harmony, ATR harmony, Neutralization, Tibetan dialect, Generative phonology

中文摘要

元音和谐是一种音系现象，即特定范围（例如音系词或形态词）内相邻韵素（moras）或音节中的所有元音可能在一个或多个发音特征方面一致。常见特征包括[±high/ ±low]、[±back]、[±ATR]（舌根前伸）和[±round]。许多非洲语言（如 Akan 语和 Yoruba 语）都有[ATR]元音和谐。

本文研究藏语邬郁话的元音和谐，藏语邬郁话是西藏自治区日喀则市南木林县的一种藏语方言，属于藏语卫藏方言。研究结果表明，藏语邬郁话具有 ATR 和谐元音系统，即藏语邬郁话的元音依据舌根前伸特征分为两组和谐集。元音和谐过程是双向的，即[-ATR]或[+ATR]元音导致前面的元音变成[-ATR]或

[+ATR]元音（逆向），或导致后面的元音发生和谐（顺向）。藏语郜郁话元音和谐的主要特点在于/a/和/ɛ/的中和，即它们都可以与/e/交替。

本文的目的是从生成音系学的角度概述藏语郜郁话中的元音和谐。

本文的结构安排如下：首先分析藏语郜郁话元音的声学特征；其次描写藏语郜郁话基于 ATR 的元音和谐基本特征；然后分析藏语郜郁话元音和谐的作用范围和方向；最后一部分为结语。

关键词：元音和谐、ATR 和谐、中和化、藏语方言、生成音系学

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A Preliminary Study of the Stress Pattern of the Tibetan Variety Kopu

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The present study analyzes the prosodic pattern of disyllabic words in “Kopu”, a Tibetan variety spoken in Jiuzhaigou County, Aba Prefecture, Sichuan Province. Lacking official records, it is considered to belong to Amdo Tibetan. A brief overview of the disyllabic words from various word classes indicates a majority of iambic patterns. The stress pattern demonstrates diversity among languages and complexity with influences from pitch and length. The description of the accent typology of this undocumented Tibetan dialect may contribute to a clearer image of the development of tones.

Keywords: Tibetan Variety; Kopu; Jiuzhaigou; Stress Pattern; Iambic

Feiyiming Yan
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Asian Converbal Clitic =nəuŋ in Pumi:

Syntax,Semantic and Historical changes

Abstract: Pumi(“普米”, a language spoken by Pumi ethnic minorities) in Nujiang, Yunnan Province, is an agglutinating language of the northern-group Qiangic languages of the Tibeto-Burman languages. It has rich morphological variaties, among which the converb form is one of the typical patterns. In Pumi, there is in the form of V=*nəuŋ* converb construction, which is used to mark background information (modifying relationship) and foreground information (sequential relationship), and can construct a developed clause chain construction. According to itsmorphological and syntactic characteristics, it can be analyzed as a typical "Asian converb". Examples are as follows:

(1) ɑ^{55} khə^{31}-dzɻ^{55}(＝nəuŋ^{31}) tə^{55}-kui^{55}-si^{31}.
1SG EXO-eat=CONV UP-full-PFV
I have eaten my fill.

(2) ni^{24} qu^{31}qu^{24}-pu^{55}=nəuŋ^{31} ɖəuŋ^{24}
2SG gentle-VBLZR＝CONV walk
Please walk gentlely!(Ying Jiang 2015:274)

Predecessors often regarded =*nəuŋ* as a conjunction or a multifunctional functional word with both auxiliary words and conjunctions. Ailan Fu(1998:158-9) defined =*nəuŋ* as a conjunction; Ying Jiang(2013:75; 2015:234-5, 464-5, 476, 489; 2018:76) suggested that it was a multifunctional auxiliary gramaticalized from the conjunction "and", and it still functioned as a conjunction;Daudey(2014:471-473) analyzed -ŋoŋ as coordinate mark (including coordination and disjunction), and noted its function as constructing adverbal clauses anits pragmatical function of repetitive. No matter what qualitative it was suggested, predecessors have already noticed its function of coding modifying and sequential relationships among clauses. At far as I’ve learned, only Mingyuan Shao & Xiaoqi Chen(2022) clearly proposed that =*nəuŋ* is a converb clitic. Nevertheless, no further analysis was provided.

In this paper, the issues of V=*nəuŋ* will be further discussed, based on the converb and clause chain theory. Mainly in the following aspects: 1) the semantic relationships of the connected clauses; 2) Definiteness of V=*nəuŋ* clauses; 3) Switch references; 4) scope of the interrogation and negation; 5) the antigrammaticalization of =*nəuŋ* ;6) the origin and further grammarticalization of V=*nəuŋ*.

The basic conclusions are: 1) that V=*nəuŋ* originated from the ablative case =*nəuŋ*, which is still fuction as an ablative in Pumi. Both of their semantic function is marking background information, which is the tipical context of their gramaticalization; 2) the semantic of the connected clauses is abundant and varies depending on contexts, even sometimes there are more than one reading in a sentence; 3) the converb clause has a relatively weak definiteness, and there is no restriction on reference-switch; 4) the scope of the interrogation and negation of converb clauses can be variable; 5) =*nəuŋ*’s function of being a

coordinate conjunction can be seen as an origin of the converb clitic which is also found in Pumi ancient Hangui（“韩规”, an religion of ancient Pumi）literatures; 6) V=*nəuŋ* will continue to associate with the following clause, so as to be the main verb in aspectual periphrastic constructions.

Keyword: Converb; Asian converb; Clitic; Pumi; Qiangic languages

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An Empirical Study of Multilingualism on Language Acquisition of Tibetan Native Speakers

With the widespread adoption of the national common language and script and the development of the world, the number of trilingual groups in the Tibet Autonomous Region has grown. The phenomenon of trilingualism (and multilingualism) has become normal in some countries and regions. Trilingual acquisition research is a new field that emerged in the 1980s from the theory of transfer, building upon the foundation of bilingual and second language acquisition research, and it is now one of the hotspots in linguistic research.

Cross-linguistic influence is an important aspect of it. Studies on the cognitive characteristics of trilinguals are indispensable for understanding cognitive plasticity and for the establishment of a comprehensive cognitive theoretical framework. Inhibitory control, as one of the core components of executive function, refers to the ability to ignore irrelevant information and focus on relevant information (Schroeder & Marian, 2017:9). This study specifically investigates the following question: Do trilingual learners with Tibetan as their mother tongue have superior inhibitory control abilities compared to bilingual learners?

The study included a total of 30 participants, all of whom were undergraduate students from domestic universities, including 15 bilingual learners and 15 trilingual learners. The mother tongue of all participants was Tibetan (Lhasa dialect), their second language was Chinese, and their third language was English. The Simon Arrow task was used to test the level of inhibitory control.

The results found that the response inhibition abilities of trilingual learners were not superior to those of bilingual learners, suggesting that L2 (Chinese) serves as the initial state for Tibetan minority students in acquiring L3 (English), with a more significant impact on their L3 (English) acquisition than their mother tongue, and it can be used to predict their L3 (English) acquisition level. Trilingual learners showed superior interference inhibition abilities compared to bilingual learners.

Multilingualism; Tibetan students;Level of inhibitory control; Language acquisition; Empirical study

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Interdisciplinary evidence reveals demographic activities of Han Chinese

As a principal branch of the Sino-Tibetan language family, Chinese and its numerous dialects have been substantially interwoven with demographic activities and sociocultural transmissions throughout their evolution history. These elements have profoundly shaped the linguistic and cultural landscape of China, presenting a fertile ground for examining the interrelationship between linguistics and genetics. However, despite previous insights from historical linguistics, a comprehensive understanding of the internal structure of Chinese dialects, especially from a quantitative analysis perspective, remains elusive. Furthermore, while genetic research on Han population mainly support the demic diffusion model, there lacks corresponding linguistic evidence to evaluate the contributions of both demic and cultural processes. These uncertainties underscore the critical need for a quantitative examination of the convergence between the linguistic and genetic profiles of Han Chinese populations in order to gain a better understanding of their complicated socio-genetic history.

To address these challenges, we digitized a large-scale lexical dataset of Chinese dialects comprising 926 varieties across the ten major dialect groups. Leveraging this dataset, we employed innovative quantitative methods, including phylogenetic analysis and admixture inference, to unravel the underlying language structure and contact trajectories. Through Principal Component Analysis (PCA) modeling and geographical comparison, we unveiled a pronounced north-south gradient of lexical differences, mirroring historical population movements. Geographic barriers such as the Yangtze River, Wuyi Mountains, and Qinling-Huaihe Line also partitioned dialects, facilitating their divergence. Utilizing a computational framework derived from population genetics, we dissected the ancestry makeup of Chinese dialects, highlighting extensive horizontal language transfers. Combining these findings with admixture inference, we identified central China as a crucial dialectal melting pot, underpinning the region's historical role in facilitating language contact and diffusion. The admixture waves inffered by Mixmapper program are shown in Figure. 1.

Complementing our linguistic analysis, we integrated autosomal genetic data from 30,408 Han Chinese individuals spanning 26 provinces to provide a comprehensive view of the lexical and genetic landscapes across China. This interdisciplinary approach elucidated the intricate relationship between genetic and language diffusion, offering a nuanced understanding of how demographic and cultural processes have shaped the linguistic map of Han Chinese dialects. Initially, the results from partial Mantel analysis revealed a strong correlation between genetics and languages of Han Chinese that is independent of geographic proximity. Futhermore, we decomposed the northern and southern ancestral components of Han Chinese from both genetic and linguistic perspectives. Our findings advocate for a hybrid model of Han Chinese diffusion, where demic diffusion and cultural diffusion are not mutually exclusive but rather complementary in elucidating the dispersal patterns of Chinese dialects. Specifically, we discerned a dominant influence of demic diffusion, particularly in central China, where population movements have profoundly impacted the linguistic configuration. Conversely, in the southwestern and coastal regions, cultural diffusion and language assimilation emerged as the primary drivers of linguistic

change, highlighting region-specific dynamics that shaped the linguistic diversity of Han Chinese dialects.

In conclusion, our work offers a fresh perspective for studying language contact and admixture. Additionally, it extends the understanding of the interrelations among Chinese dialects and facilitates the reconstruction of their historical trajectories. The interdisciplinary alignment of genes and languages echoes historical demographic events and reveals unique regional patterns of language spread. The significance of our work lies in proposing an interdisciplinary research paradigm to reconstruct the intertwined history of language evolution under the framework of population admixture and language contact.

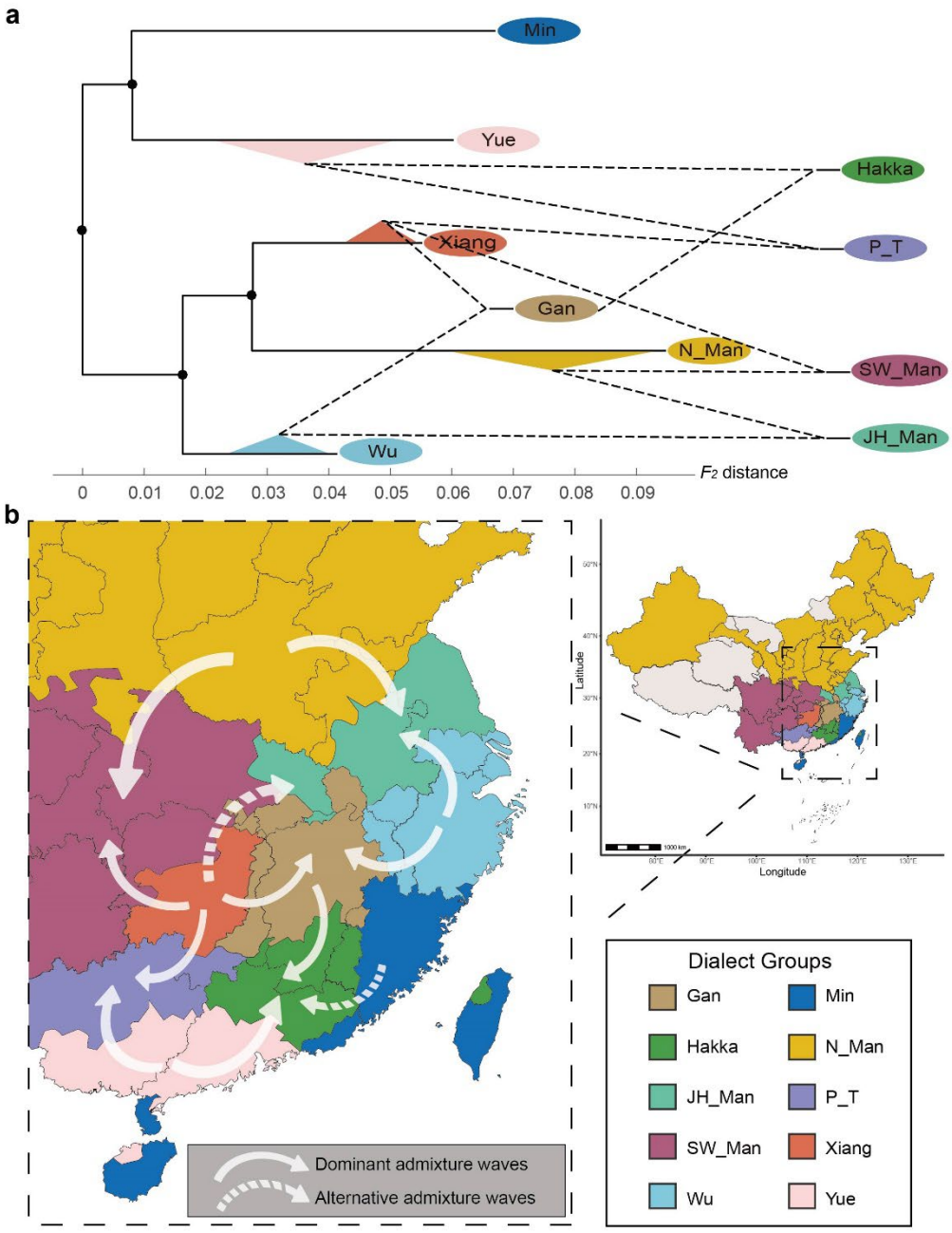

Figure. 1. Admixture patterns of Chinese dialects. (a) Inferred sources of ancestry for admixed Chinese dialect groups. The scaffold tree is constructed based on *F2* distances. Shaded ranges indicate 95% bootstrap confidence intervals for branching positions. The admixture scenario of Hakka is fitted with the three-way admixture model, while other admixed dialect groups are fitted with the two-way admixture model. We present the most strongly supported admixture scenario out of 500 bootstrap replications as dashed lines. **(b)** Inferred admixture waves shown on a dialectal map of China. Solid arrows indicate dominant admixture directions (most common scenarios out of 500 bootstrap replications). Dashed arrows indicate alternative admixture directions (other scenarios with bootstrap replications > 50). Abbreviations include N_Man: Northern Mandarin, JH_Man: Jiang-Huai Mandarin, SW_Man: Southwestern Mandarin, P_T: Pinghua-and-Tuhua.

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A Perceptual Study on Mandarin Tones by Native Kam Speakers in Rongjiang

Speech perception mainly focuses on the extraction and processing mechanism of speech information by human ear, and explores the psychological reality behind it. When the experimental research methods of modern phonetics are introduced, categorical perception experiments in cognitive phonemics can be used to identify what distinctive features native speakers use when recognizing phonemes (Kong, 2018). Tone is one of the most important features of Mandarin, and one of the most challenging phonetic features for Mandarin learners to master. Tone is mainly manifested as patterns of pitch changes, which are typically described using the physical parameter of F0 (fundamental frequency). Therefore, the primary method used in researching on tone perception is to synthesize F0 continua between two tones and to conducting perception experiments. This paper aims at investigating the Mandarin tone perception of native Kam speakers in Rongjiang area through the categorical perception experiment, and compared with the native Mandarin speakers. The results show that the native Kam speakers are able to differentiate phonemic categories among the four Mandarin tones in pairs at the linguistic level. At the behavioral level, the tone perception of T1-T2, T1-T3 (T3), T1-T4, T2-T4 and T3-T4 (T3) continua is shown to be categorical, but the degree of categorization is significantly lower than that of the Mandarin speakers. In T1-T3 (T1), T2-T3 and T3-T4 (T4) continua, they fail to establish categorical perception, exhibiting continuous perception instead. The results indicate that complex tone system of Kam language does not facilitate categorical perception of Mandarin tones by Kam speakers.

Keywords: Mandarin tones, Categorical perception, Kam language, Language experience

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An acoustic analysis of fricatives in the Fugou dialect of Chinese

Abstract:

This paper attempts to analyze the fricatives of Fugou dialect of Chinese from acoustic viewpoints. This language variety is spoken in Fugou County of the Zhoukou City, Henan Province, China, and is genetically affiliated with the Luoxiang sub-sections of Zhongyuan Mandarin. Previous research on the phonological system of this dialect is mainly documented in two prominent texts: *Fugou chronology*（扶沟县志）and *Fugou chronology part 2*（扶沟县志 下册）. There is, however, no previous studies on the fricatives of this dialect from acoustic phonetics and their phonological features.

This paper aspires to present a painstakingly crafted sound pattern chart of the fricative in Fugou dialect, meticulously pieced together from recording sound data collected through the author's fieldwork, facilitated the acoustic analysis by Praat. Subsequently, the center of gravity and dispersion of 6 fricatives (/f/[f],/s/[ʂ/s],/r/[z],/x/[ɕ/x])in this dialect have been explored.

The linguistic consultants of this paper are mainly two women (55 and 45 years old) who speak the Fugou dialect in daily life. The software employed in this paper is the Chinese version of Praat (Praat6 version 1.09) translated by Bei Xianming and Xiang Ning. This data focuses on the monosyllabic words whose initial consonant is fricative. Referring to the basic vocabulary of Xin Yongfen etc (2023), the sound files of 40 basic vocabularies of Fugou dialect were collected. The two linguistic consultants were required to pronounce this basic vocabulary one by one with reference to our questionnaire and we obtained 80 sound data with fricatives in this dialect. Then, we got the normalized and relativized values of center of gravity and dispersion from each sound data. Finally, we analyzed the correlation between center of gravity and dispersion of fricatives through the calculation of the table.

Our analysis can be concluded as follows; in the Fugou dialect, on the one hand, from the viewpoint of center of gravity, the alveolar /r/[z] is the smallest, and the alveolar palatal /x/[ɕ] is the largest; the alveolar fricative /s/[s/ʂ] is much different from the alveolar palatal /x/[ɕ]. On the other hand, from the viewpoint of dispersion, the alveolar /r/[z] is still the smallest, and the labiodental /f/[f] is the largest. Because the alveolar palatal /x/[ɕ] and velar /x/[x] are conditional allophones, the difference in dispersion between them is very small.

From the physiological state of vocalization, when the airflow in the organs of speech is not completely closed, the friction gap formed by alveolar /r/[z] is larger with a wide airflow path than the alveolar palatal /x/[ɕ] and velar /x/[x].

This paper only collected two speakers' sound files to combine the methodology of acoustic phonetics and phonology and to analyze the center of gravity and the dispersion in this dialect. To make the analysis more accurate, more data from more speakers should be needed in the future.

Keyword: Fugou dialect, acoustic phonetics, fricatives, center of gravity and dispersion

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Grammatical tone in Barpak Ghale

Keywords: Tamangic; Nepal; grammatical tone; tonal neutralization; morphophonology

Introduction: Ghale (ISO 639-3 ghe) is a language of the Tamangic subfamily of the Tibeto-Burman language family (van Driem 2011). It is spoken by 23,049 people (2021 census of Nepal) in the Gorkha District of the Gandaki Province of Nepal. This study is based on data from the dialect spoken in the Barpak village, Gorkha District. Tamangic languages are known to have a word-tone system where the tone-bearing unit (TBU) is the word, formed of a tonal lexical item and atonal suffixes (Mazaudon 2005). This study shows that, in addition to such a typical word-tone system, Barpak Ghale has grammatical tone phenomena in which suffixes trigger the neutralization of tone on the preceding TBU.

Tone in Barpak Ghale: Barpak Ghale has five tones: /22/, /33/, /55/, /21/, and /25/ in Chao tone letters (Khadgi 2021). Verbs have one of /22/, /33/, /55/ or /21/ tone, except for the copulas which have /25/.

Data: This study observes that there are suffixes that alter the tone of the word in Barpak Ghale: the modal suffix *-pi*^{55} and the aspectual suffixes *-nʌ* and *-nu*. *-nʌ* and *-nu* are aspectual suffixes, whose value is progressive or perfect, depending on the lexical aspect of a verb.

These suffixes change the tone of /33/ on the preceding TBU to /21/ and the tone of /55/ to /22/. Because of this phonological process, the differences of /33/ and /21/ and of /55/ and /22/ are neutralized when they are suffixed with one of these suffixes. This process is applied both for verbal roots as in (1)–(4) and tonal suffixes as in (3)–(4). If the preceding suffix is toneless, this phonological process is not applied as in (5).

(1) pre^{21}nʌ
prʌ^{33}-nʌ
go-PROG
'is going'

(2) pre^{21}nʌ
prʌ^{21}-nʌ
break-PRF
'having been torn'

(3) tel^{22}pi^{22}nʌ
tel^{55}-pi^{55}-nʌ
drop-MOD-PROG
'is dropping something

(4) tel^{22}pi^{22}nʌ
tel^{22}-pi^{55}-nʌ
chase.away-MOD-PROG
'is chasing away something'

(5) ʈhu^{33}minʌ
ʈhu^{55}-mi-nʌ

wash-BEN-PROG
'is washing someone other than the speaker'

Discussion: This paper argues that the morphophonological process involving the suffixes *-pi*^{55}, *-nʌ* and *-nu* are an instance of grammatical tone, which is defined as "a tonological operation which is not general across the phonological grammar, and is restricted to the context of a specific morpheme or construction, or a natural class of morphemes or constructions" (Rolle 2018: 19). The process of altering the adjacent tone in Barpak Ghale is not general phonological process but specific to the suffixation of *-pi*^{55}, *-nʌ* and *-nu.* The grammatical categories of modality and aspect are expressed both by tone and segments.

The present analysis has both descriptive and theoretical implications. Descriptively, the tonological operation discussed here provides an additional evidence for the hypothesis given by Khadgi (2021) that the tones /33/ and /21/ are low tones and /55/ and /22/ are high tones. She argues for this hypothesis based on word-initial voicing. The classification of low and high tones is also supported by the tonological operation, in which both high (/55/ and /22/) and low (/33/ and /21/) tones undergo neutralization to their respective lower tones (/22/ or /21/).

Typologically, this study has an implication to the tonal typology of Tibeto-Burman languages in Himalayas. Grammatical tone is often attested in African languages with level tones. Studies of grammatical tone in Tibeto-Burman languages mostly report tonological phenomena in a language primarily with level tones. Unlike those languages, Barpak Ghale has a contour tone system. This study shows an instance of grammatical tone in a Tibeto-Burman language with contour tones and contributes to the tonal typology of this region.

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Grammaticalization of Borrowed Particle “lə^{55}” in Karen Language

Karen language, belonging to the Tibeto-Burman language family, is a cross-border language spoken in Myanmar and Thailand. Karen has had frequent contact with Tai-Kadai languages, resulting in some loanwords from these languages. The Karen particle “lə^{55}” is borrowed from the Tai-Kadai morpheme meaning “to obtain”.

Comparing “lə^{55}” with the corresponding functional particles in Tai-Kadai and Tibeto-Burman languages reveals the grammaticalization process of “lə^{55}” in Karen.

The pronunciation of Karen is similar to that of Tai-Kadai languages in Southeast Asia, and the consonants of“l” and “d”are also corresponding in the same family. Therefore, it can be concluded that the relationship between “lə^{55}” in Karen and Tai-Kadai languages in Southeast Asia is either cognate or loanword.However, the exact relationship cannot be determined only from the pronunciation, so it should be extended to the functions of the word morpheme in each language.

The morphemes of “lə^{55}” in Southeast Asian languages generally have five grammatical functions, compared with Karen as follows:

Table1: A comparison of the grammatical functions of “lə^{55}” morphemes in Karen and other Zhuang-Dong languages

langauge	morpheme of “obtain”	Functions				
		Verb	Verb complement/ perfective aspect mark	“Can” meaning complement	Status/degree complement mark	“Can” meaning complement mark
Sgaw Karen	lə^{55}	-	+	-	+	-
Pwo Karen	lə-	-	+	-	+	-
Thai	dây	+	+	+	+	-
Lao	daj^{4}	+	+	+	+	（+）
Shan	lài	+	+	+	-	-

If the corresponding morphemes of Tibeto-Burman are found according to the functions of Tai-Kadai languages, it is found that most of the OV type Tibeto-Burman morphemes with similar functions are not grammatically derived from the same morpheme, but different morphemes serve similar functions. Moreover, most OV Tibeto-Burman languages lack a vital function of "Verb complement" (Wu Fuxiang, 2009), which is crucial in the "Obtain" morpheme of Tai-Kadai languages. For example:

Table2: A comparison of functions of some structural auxiliary words in Karen and Tibeto-Burman

Language	“Obtain”meaning	Perfective	“Can”	Status/degree

	verb	aspect mark	meaning complement	complement mark
Karen	ba^{31}	lə^{55}	θe^{33}	lə^{55}
Lahu	ɣa^{33}	mɤ^{33}	ɣa^{33}	ve^{33}
Hani	ɣa^{33}	tɕa̲^{31}	tɕhɔ^{55}	ɤ^{33}
Yi	ɣɯ^{21}	ta^{33}	to^{44}	sḭ^{44}

After being borrowed from Tai-Kadai, the grammaticalization path of "lə^{55}" in Karen does not align with that of Tai-Kadai but rather follows the constraints imposed by Tibeto-Burman grammaticalization paths. This phenomenon illustrates that language development can be influenced by language contact but ultimately determined by inherent linguistic characteristics within its language family; in other words, the linguistic "genes" of an ethnic group play an important role in shaping language contact.

Keywords Karen Langauge; grammaticalization； language contact

Muhammad Zakaria
SOAS

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Applicative to nominalizer: a widespread grammaticalization in South Central Tibeto-Burman

This talk explores how applicatives develop into nominalizers and purposives in South Central (SC) Tibeto-Burman (also known as Kuki-Chin) languages. We specifically look at the development of the applicative suffix *-hay* (1), which is typically found in Southwestern languages. Its phonetically reduced form *-e(y)* has developed into middle (2a) as well as preserved the original applicative function (2b) in Southeastern.

1. ***-hay* as applicative in Khumi** (Peterson, 2013: 190)
   la^{1} a^{1}ti^{3} nay^{11}b'lö^{1} t'ko^{11}-**hay^{11}**=bo^{2}
   take etc.AUX then leave-**COM.APPL**=REAL
   '...they took her and so on, and then left with her.' (24.66)

2. ***-e* as middle and applicative in Laitu**

   (a) ní kùt=khâ hlàk-**é**-thôʔ
   this hand=ADD move-**MID**-CAP
   'This hand can also move.' [Laitu105_23]

   (b) kɔ́-tsí tsɔ̂ kó-**óm-ê**
   1SG-paternal.aunt child 1SG-sit/stay-**COM.APPL**
   'I married (lived/stayed with) my paternal aunt's son. '[Laitu_TS11_14]

We demonstrate that applicatives tend to further grammaticalize into nominalizers, which is typologically a common phenomenon, across the SC branch. In doing so, we provide examples of different functions of the widespread *-na(k)* applicative in SC, including nominalization. So-Hartmann (2001) provides an extensive discussion on the different functions of *na(k)* in several SC languages. The examples in 4 and 5 demonstrate the use of *-naak* as an instrumental applicative and as a nominalizer in Daai.

3. ***-naak* as instrumental** (So-Hartmann, 2001: 149)
   ahin-a lipok hin mpyäüh kah kaah **naak** ni
   DEM-AGR gun DEM tiger AGR_{SUB}:1SG shot **AUX:INSTR** EMP
   'This is the gun I shot the tiger with.'

4. ***-naak* as nominalizer** (So-Hartmann, 2001: 154)
   pangsiim noh thih naak-a kkyüh ah jah thoh shak be
   god ERG die NOM-GR from AGR_{SUB}:3S AGR_{OBJ}:1/3PL get.up CAUS again
   'God raised them up Again from death.' (Matth. 27:52)

Besides functioning as an instrumental applicative (Peterson, 2019: 268), *naak* functions as a relativizer in Lai (Barnes 1998, Peterson 2019), as in 6.

5. ***-naak* as relativizer** (Barnes, 1998: 62)
   tsew.maŋ ʔa ʔum **naak** ʔin khaa ʔa ŋan ŋaay
   PN 3SG exist **REL** house D 3SG be.large very
   'The house where Tsew Mang lives (you know the one) is very large.'

Like *naak*, the applicative *-hay* has developed into other functions as well. In Laitu, a Southeastern language, we find the original form *-hay* developed into a purposive (6).

6. *-hay* as purposive

bú? nɔ́n-ʔé-**háy** mɔ́y-á? nón-thón-lô?
rice 2PL-eat-**PURP** exist-NEG 2PL-cultivate-OBLG
'There was no rice for you to eat. You had to do cultivation. [Laitu0045_26]'

Drawing on the trends of applicatives developing other functions typologically (Peterson 2007, Pacchiarotti & Zuniga 2022) and in SC, we show how the case of *-na(k)* provides evidence for the *-hay* applicative developing into a purposive. Furthermore, we demonstrate how applicatives can develop beyond their core function and highlight their further grammaticalization observed in SC and cross-linguistically.

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When *eat* means *take*: Pathways between applicatives, causatives, and middles in Tibeto-Burman

In South Central Tibeto-Burman (SC), an element of approximately the form *-(h)aj* developed from a verbal source into an adposition, *haj* 'with'; it separately grammaticalized into a marker of (comitative) applicatives. In the Southwestern portion of SC (as in Khumi 1a-b), while retaining applicative functions, it added causative ones. In the Southeastern part of SC (as in Hyow 2a-b), it lost most applicative functions and evolved into a highly productive middle marker.

(1) a. khåy^{1}tewng^{11}=te^{1} ne^{1}-hay^{11}-ma^{11}=nö^{2} nang^{1}=pö^{1}
pn.LOC=EVID drink-CAUS-FIRST=NMLZ 2SG=also
'They had Khåytewng drink first, you know...' (42.93)

b. la^{1} a^{1}ti^{3} nay^{11}b'lö^{1} t'ko^{11}-hay^{11}=bo^{2}
take etc.AUX then leave-COM.APPL=REAL
'...they took her and so on, and then left with her.' (24.66)

(2) a. náng lá kêy ìní-hmú-ê̱y-ǽʔy ɔ́lɔ́
2SG and 1SG 1INCLS-see$_{B}$-MID-IRR again
'You and I will see each other again.' [ZM_SK_THP_082015_HYOW_0024_0068]

b. èyhnɔ̀ʔlàtsɛ̂ tsùâ=ní wát=khôl hyâng-ê̱y-hyɔ̂
after.that DIST=FOC cloth=SPL strew$_{B}$-MID-PM
'After that, (he saw) the clothes and such were strewn about there.'
[ZM_SMTB_SPW_082007_HYOW_0002_0126]

In this talk, we argue that the source for this element was the Proto-Tibeto-Burman root **kay*, reconstructed with the semantics 'eat' by Matisoff (2015:225). While PTB **k* generally remains **k* at the Proto-SC level, there are a number of SC roots (e.g., PSC **uj* 'dog' < PTB **d-k^{w}əy-n*, PSC **im* < PTB **d-k-y(i/u)m*), where root-initial **k* is either lost, or at the PSC level was in the process of being lost. The root VanBik 2009 reconstructs as PSC **aj* 'eat' is one such root.

We propose that in order to account for what happened in SC with this root, the original meaning for it must have actually been 'take', which makes a much more likely source than the verbal element 'eat' would for a comitative applicative marker (and for a comitative adposition). However, it seems reasonable that 'take' can shift in meaning to 'eat' (cf. English *take medicine*, for a simple example). This shift has happened widely in Tibeto-Burman with this root, including in SC itself, leading to the impression that its original meaning must have been 'eat'.

Outside of SC, LaPolla (2006) describes the development of the cognate root *ke¯* 'eat' as a middle marker in Rawang. The comitative applicative element *-gə* in Tani languages, also presents a tantalizing comparison, but the consonant correspondence there is problematic, so it may simply be coincidental.

The development of middle marking from *eat* is a well-known areal grammaticalization path (see especially Creissels 2010 and Coupe 2018). We suggest that, although there were independent reasons for the marker to drift towards a middle in function in Southeastern SC, perhaps this evolution was further reinforced by the fact that the independent verbal element became the basic verb 'eat' in Southeastern languages, much as it did in many other SC languages which preserve it.

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Profiling 'Drargyas Sgangpa Tibetan Phonology

ABSTRACT

'Drargyas Sgangpa is a previously undocumented Tibetic variety spoken in eastern Lithang County of Dkarmdzes Prefecture, Sichuan Province. From both a synchronic and diachronic perspective, the 'Drargyas Sgangpa sound system represents a fascinating halfway house between a typical pastoral (e.g. 'Bumyag; Sun & Lin 2023) and agricultural (e.g. 'Ba'thang; Gesang 1985, Gdingpo; Zhang 2020) system from the same prefecture. Drawing on fieldwork materials and selected comparative data, this study aims to uncover the mixed nature of 'Drargyas Sgangpa phonology and elucidate its historical origins.

The typological heterogeneity of synchronic 'Drargyas Sgangpa phonology is evidenced by (a) **features shared with Amdo** (e.g. labial and velar stop codas; no contrastive tone), (b) **features shared with agricultural dialects** (e.g. phonemic vocalic length and nasality; no cluster onsets or continuant codas), (c) **conglomerate features** (e.g. distinctive velar *-k* and glottal *-ʔ* codas, attested respectively in Amdo and agricultural dialects but not both) and (d) **unique features** (e.g. contrastive phonation).

The variegated nature of 'Drargyas Sgangpa phonological history is manifested on the other hand by the absence of **diagnostic Amdo innovations** (e.g. labial spirantization, merger of **Kr* into **Ky*, merger of **ing* into **ang*, Hua 1983; Wang 2012), avoidance of **common sound changes in the agricultural dialects** (e.g. sweeping merger of all stop codas to *-ʔ*, compensatory vowel lengthening with loss of **-r*) and above all by its **characteristic phonological developments** (e.g. merger of **am*/**om*/**um*, rise of distinctive lax consonants from OT simplex voiceless fricatives, voiced stops, and sonorants)

Further lexical and morphological data will be provided in our presentation to help unravel the linguistic position of this remarkable Tibetic variety of Sichuan.

Keywords Tibetic; synchronic phonology; sound change; dialect subgrouping

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Towards a new dialectology of Situ Gyalrong

Key words: Situ Gyalrong, Dialectology, Shared innovation, Deprenasalization, Lenition

Gyalrongic, a subgroup of the Sino-Tibetan language family, is mainly distributed in northwestern Sichuan Province, covering the Aba Tibetan-Qiang Autonomous Prefecture, the Ganzi Tibetan Autonomous Prefecture, and surrounding areas. The core Gyalrong languages consist of four mutually unintelligible languages: Japhug, Tshobdun, Zbu, and Situ (Sun 2000). Among these, Situ Gyalrong (四土嘉绒语) boasts the widest distribution, extending from Barkam in the north to Baoxing in the south, encompassing the majority of Gyalrongic-speaking territory. The vast geographical distribution and isolated environment in mountainous areas contribute to the internal diversity of Situ dialects, resulting in varying degrees of mutual intelligibility. Despite recent advances in subgrouping Gyalrongic languages, the internal diversity of Situ dialects has consistently been overlooked, leaving its internal classification unresolved.

This paper aims to propose a new classification of Situ Gyalrong dialects, by integrating findings from previous studies (Lin 1993, Gates 2014, Gong 2017) recent documentation (Lin 2016, Prins 2016, Zhang 2020), along with freshly collected data by the authors. Employing the Neogrammarian approach of language subgrouping supplemented by Bayesian phylogenetic inference, we seek to address two key questions. First, what defines Situ Gyalrong? In this section, we will elucidate the relationship between the historical-geographical concept of Situ and the linguistic concept of Situ, delineating Situ Gyalrong's boundaries based on shared phonological, lexical, and morpho-syntactic innovations. Second, we will propose an internal classification of Situ Gyalrong dialects. Building upon Gong's (2017) hypothesis, our focus will primarily be on deprenalization and various types of lenition, supplemented by shared morpho-syntactic innovations, as isoglosses for the classification of Situ dialects.

The diverse types of lenition observed within Situ dialects not only complement sound change typology but also highlight the significant role of historical linguistics in language subgrouping. Moreover, the proposed subdivision of Situ dialects and sub-dialects will shed light on possible migration trajectories of Situ-speaking populations, thereby contributing to uncovering the lesser-known history of Gyalrong people, which has been underrepresented in historical records.

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The phonology of the underdescribed Mengguang dialect of Pela

Pela 波拉 /pǎ.lá/ is a Burmish language spoken by approximately 500-600 L1 speakers in Dehong Dai and Jingpo Autonomous Prefecture, Yunnan, China, and Shan State, Myanmar. Up to now, no dialect difference has been mentioned in previous works (namely *A Study of Pela Language* 波拉语研究 by Dài et al., 2007) based on Pela from Yunqian 允欠 /jín.kʰjèn/ village, Mangshi City. However, during the author's fieldwork, slight differences were noticed between the dialects spoken in Yunqian and another village, Mengguang 勐广 /mə̀ŋ.kòŋ/, located in Mangshi City as well. According to the speakers, it has been 9-10 generations since the immigration of Pela from Mengguang to Yunqian, therefore roughly two centuries.

Based on the data from the author's fieldwork, this paper aims to provide an outline of the phonology of Mengguang Pela, with both a description of the phonological system and a comparison with the previously studied Yunqian dialect.

This paper first describes the phoneme inventory of consonants and vowels, tones, syllable structures, phonetic realisations and variations, and morphophonological processes.

Mengguang Pela has a phoneme inventory with 33 consonants (among which 7 serve as codas as well), 12 vowels (among which 1 diphthong phoneme, 1 reduced vowel, and 1 vowel that never occurs alone in native words), and 4 tones, as summarised as follows:

[Consonants] /**p**, p', pʰ, **t**, t', tʰ, **k**, k', kʰ, **ʔ**; **m**, m', **n**, n', **ŋ**, ŋ'; ts, ts', tsʰ, tʃ, tʃ', tʃʰ; f, v, s, ʃ, ʒ, x, ɣ; j, j', l, l'/
(Apostrophe for tense consonants; consonants in bold font also serve as codas)
[Vowels] (Oral) /a, au, i, u, ɛ, ɔ, ø, ə/ (Reduced) /ə̃/
(Nasal) /ĩ, ɛ̃, ɔ̃/
[Tones] High-level, Rising, Low-falling, High-falling

Generally, Pela has several common noteworthy phonological and phonetic characteristics, which are not shared with (at least some of) its neighbours. Some of them are shown below:

1. ($C_{initial}$)(-j-)V(C_{coda}/-i)/T structure in full syllables (except the syllabic /ŋ̍/) and ($C_{initial}$)(-j-)-ə̃ (tone neutralised) in weak (or reduced) syllables;
2. Iambic, therefore weak syllables only occur in non-final positions
3. Tripartite system in initial stop, nasal, and affricate consonants: plain, tense, and aspirated
4. Homorganic initial epenthesis caused by codas of preceding syllables

Then the phonological and phonetic dialect differences between the two dialects and external influence from their surrounding environment will be illustrated. Moreover, some unique phonological characteristics that make the Mengguang dialect distinctive compared with the Yunqian dialect will be shown, e.g. vowel raising from /ɛ̃/ to /ĩ/ after /j/.

Furthermore, a brief comparison with a few other sister languages such as Lhaovo and Zaiwa will also be given.

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Orientation Prefixes in Rongpa Choyul

Abstract

The Rongpa dialect of Choyul is an understudied Sino-Tibetan language spoken in Lithang (in Chiense 理塘) County, Dkarmdzes (甘孜) Tibetan Autonomous Prefecture of Sichuan Province, China. As one of the common areal characteristics of the ethnic languages in Western Sichuan, the orientation systems are often composed of a number of orientation prefixes (LaPolla 2003; Matisoff 2003).

While the orientation systems in many of its neighboring languages have been rather adequately documented and analyzed (e.g., Huang 1994; Lin 2002, 2020; Lin & Luo 2003; Shirai 2009, 2018, 2020), previous studies on Choyul orientation prefixes are scanty: only Lu (1985) and Wang (1991) provide sketchy profiles of orientation systems of the varieties of Gara (in Chinese 呷拉 in Nyagchu County 雅江县) and gYanglagshis (in Chinese 尤拉西 in Nyagrong County 新龙县). This paper, therefore, is going to presents a detailed description of the orientation prefixes of the Rongpa (in Chinese 绒坝) dialect of Choyul.

In general, Rongpa distinguishes two subsystems, denoted by five prefixes in total: namely, (1) *rə-* 'upward' and (2) *lə-* 'downward' for the VERTICAL axis; (3) *kə-* 'upstream' and *ɣə-* 'downstream' for the RIVERINE axis; and (5) *tə-* 'neutral'. In addition to encoding river-based orientation meanings, the prefix *kə-* and *ɣə-* are also used to encode the SOLAR and ZONE axes. In other words, *kə-* and *ɣə-* also encode "westward/inward" and "eastward/outward" respectively.

When attached to a motion verb, the orientational connotation of the prefix is explicitly specified. While when attached to a non-motion verb, the selection of prefixes is dependent on the verb's inherent lexical semantics, or it can be totally conventionalized.

In addition to conveying orientational meanings, these prefixes have been grammaticalized to express perfective and imperative meanings on non-stative verbs. However, these prefixes are not allowed with static verbs or adjectives. Moreover, this study also discusses the orientation adverbials that show corresponding relationships to the orientation prefixes.

Keywords: Sino-Tibetan, Choyul, Rongpa, orientation prefix

and *tɕã*^{13}, namely, the different evidential functions of egophoric and factual, in the simple sentences as illustrated in (1) and (2).

(5) *wu*^{55} a^{31}*ni*^{55} *dɛ*^{31} *bə*^{13} *mi*^{31} *mu*^{31} **tɕã**^{31}

DET grandpa TOP son NEG NMLZ COP.FACT

'The grandpa is a man without a son.'

(6) *wu*^{55} a^{31}*ni*^{55} *dɛ*^{31} *n*a^{55}*m*a^{55} *l*a^{31} *mi*^{31} *mu*^{31} **rɛ**^{31} *bə*^{13} *l*a^{31}

DET grandpa TOP wife also NEG NMLZ COP son also

mi^{31} *mu*^{31} **rɛ**^{31} *ko*^{13}*d*a^{31} *t*a^{31}*t*a^{53} *le*^{13} *ʐ*a^{31} *tɕã*^{31}

NEG NMLZ COP 3SG alone left CONT COP.FACT

'The grandpa was left alone without his wife and his son.'

(lit. 'The grandpa, being a man without his wife, being a man without his son, was left alone.')

Examples (5) and (6) suggest that *re*^{31} can be used in a subordinate clause that provides general background information other than time reference.

Our preliminary investigation indicates that the similar tripartite copula system also exits in the Tibetan dialects of some villages of Yangla Township, Deqin County. However, it is notable that these dialects are all surrounded by dialects with the bipartite copula system.

This study also makes an attempt to investigate the development path of the present usage distribution of these three copulas *jĩ*^{31}, *tɕã*^{13}, and *re*^{31} in the tripartite system, especially the usage of *re*^{31}, which is sensitive to information prominence.

Abbreviations

1	first person	ERG	ergative
3	third person	FACT	factual
CONJ	conjunction	GEN	genitive
CONT	continuative	NMLZ	nominalizer
COP	copula	SG	singular
DET	determiner	TOP	topic
DIR	directional	NEG	negative
EGO	egophoric		

Keywords: tripartite copula system, evidential, egophoric, factual, information prominence, Khams Tibetan dialect

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Differential subject marking in Tiddim Chin

The purpose of this research is to provide a description and analysis of differential subject marking (DSM) in Tiddim Chin and to examine its factors with special reference to the degree of transitivity of the clause.

[Background] Tiddim Chin (ISO639-3: ctd) is a Tibeto-Burman language spoken mainly in Myanmar and India. Tiddim Chin is an ergative-absolutive language, in which A is marked with the ergative marker *in³*, while S and O are marked with a zero marker. However, there are certain cases in which the ergative marker can be optional, as in (1).

(1) *aˡmaʔ³ (in³) inˡ neiˀ³.*
3SG ERG house have[I]
'He has a house.'

This phenomenon is called differential subject marking. DSM is important because it is observed cross-linguistically and the factors that trigger DSM differ from language to language (Witzlack-Makarevich & Seržant 2018).

Furthermore, DSM in Tibeto-Burman is a complicated one. Chelliah (2017) demonstrates that many factors contribute to the occurrence of an agentive marker in Tibeto-Burman languages and that no single factor alone can predict whether or not an agentive marker will occur.

[Research question] This study will describe the DSM in Tiddim Chin and examine its factors through elicited data. This study will focus on the degree of transitivity because the degree of transitivity has been considered to be one of the factors that affect agent marking in some Tibeto-Burman languages like Ladakhi Tibetan (Chelliah 2017).

[Result] The key observation in this study is that the ergative marker can be optional in these three cases, in which the degree of transitivity is considered to be low (Hopper & Thompson 1980).

[A] When the subject is nonvolitional:

(2) *keiˡ (in³) tuaˀ buːŋˀ suˀ³siaˡ xaːˡ*
1SG ERG DEM box break[I] by.mistake[I]
'I broke the box by mistake.'

[B] When the object has low animacy:

(3) *aˡmaʔ³ (in³) tʰuˡ tuam³tuam³ tʰeiˀ³.*
3SG ERG thing various[I] know[I]
'He knows a lot of things.'

[C] When the object receives lower affectedness in the sense of the Affectedness Scale proposed by Tsunoda (1985):

(4) *uiˡ (in³) aˡmaʔ³ tʰeiˀ³.*
dog ERG 3SG know[I]
'Dog knows him.'

[Analysis] The results above show that the occurrence of the ergative marker *in³* in Tiddim Chin is motivated by the degree of transitivity and that there are two functions working behind DSM in Tiddim Chin.

Firstly, the clauses with low transitivity tend to have an optional ergative marker, while those with high transitivity tend to have an obligatory one. The degree of transitivity is low in the case of nonvolitional subjects, inanimate objects and verbs that are low on the Affectedness Scale (Tsunoda 1985). In particular, while affectedness is reported to be associated with differential object marking in Spanish (Heusinger & Kaiser 2011), this study shows that affectedness is also associated with DSM in Tiddim Chin.

Secondly, DSM in Tiddim Chin has two basic functions of case marking, namely distinguishing and identifying functions. Specifically, strong subjects on the animacy hierarchy (e.g. pronouns) receive an ergative marker due to the identifying function, while weak subjects (e.g. inanimate subjects) receive an ergative marker so that they can be distinguished from the object, due to the distinguishing function. This analysis shows that DSM can serve multiple functions in one language.

[Conclusion] This study describes DSM in Tiddim Chin and presents two findings. Firstly, it revealed the correlation between the degree of transitivity and DSM. Secondly, it discussed two basic functions of ergative marker in Tiddim Chin. Thus, this study contributes to a better understanding of DSM in Sino-Tibetan languages.

[Abbreviation] DEM: demonstrative; ERG: ergative; I: form I; PN: proper noun; SG: single.

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Experimental acoustic study on the tone sandhi of Jino language

This paper combines field investigation and phonetic experiments to study the monosyllabic tone and tone sandhi of Jino language as spoken in Baka village. The study found that the phenomenon of tone sandhi in bisyllabic words has describable rules: from a diachronic perspective, morphemes with the same historical origin exhibit the same tone alternation characteristics when constructing words. Morphemes derived from *Proto-Lolo Tone 1 reorganize the metrical relationship between morphemes in word construction, resulting in unstressed and stressed tones. From a synchronic phonological analysis perspective, the Obligatory Contour Principle restricts the possibility of tone values appearing in morphemes in bisyllabic words. In addition, this paper also proposes some new views on the historical development of tones in Jino language.

Keywords: Jino, Baka village, tone sandhi, experimental acoustic study

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Tripartite copula system in the Tibetan dialect of Bamei Village in Deqin County

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Abstract: This paper examines the tripartite copula system in the Tibetan dialect of Bamei Village, Deqin County, Yunnan Province. This dialect belongs to the Southern Khams Tibetan. While the common copula system in the Tibetan languages is bipartite, namely, consisting of *yin* and *red*, with *yin* denoting egophoric and *red* factual, the copula system in the Tibetan dialect of Bamei Village consists of three copulas, namely, *jĩ*^{31}, *tɕ*ã^{13}, and *re*^{31}. The copulas *jĩ*^{31} and *tɕ*ã^{13} function similarly to *yin* and *red* in the bipartite system respectively. The copula *re*^{31} is used exclusively in a subordinate clause that provides background information for the proposition of the main clause, except for proverbs, which is a different register. The examples in (1)-(6) illustrate the usage of *re*^{31} in subordinate clauses as opposed to *jĩ*^{31} and *tɕ*ã^{13} in simple sentences.

(1) *k*^{h}*u*^{53} *lu*^{31} *tɕə*^{53} ***tɕ*ã^{31}**

3SG year ten COP.FACT

'He is ten years old.'

(2) *ŋ*a^{13} *lu*^{31} *tɕə*^{53} ***jĩ*^{31}**

1SG year ten COP.EGO

'I am ten years old.'

(3) *k*^{h}*u*^{53} *lu*^{31} *tɕə*^{53} ***rɛ*^{31}** *rɛ*^{13} *ko*^{13} a^{31}*ma*^{53} *ge*^{31} *tsu*^{53}*k*^{h}a^{53}

3SG year ten COP CONJ 3SG.GEN mother ERG beach

pɛ^{55} *jĩ*^{13} *ʈʂ*^{h}*ɛ*^{53} *tɕ*ã^{31}

DIR play take COP.FACT

'When he was ten years old, his mother took him to the beach.'

(4) *ŋ*a^{13} *lu*^{31} *tɕə*^{53} ***rɛ*^{31}** *rɛ*^{13} *ŋo*^{13} a^{31}*ma*^{53} *ge*^{31} *tsu*^{53}*k*^{h}a^{53}

1SG year ten COP CONJ 1SG.GEN mother ERG beach

pɛ^{55} *jĩ*^{13} *ʈʂ*^{h}*ɛ*^{53} *tɕ*ã^{31}

DIR play take COP.FACT

'When I was ten years old, my mother took me to the beach.'

In examples (3) and (4), *re*^{31} is used in the subordinate clause, which provides the temporal background information for the event stated in the main clause, neutralizing the opposition of *jĩ*^{31}

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Back to TOC

The origins of complex contour tones

This study investigates the inputs and processes that generate complex contour tones in Asian languages, with the aim of shedding light on the diachronic evolution of these rare and elaborate tone shapes. Complex contour is defined as a contour with two slopes (rise-fall or fall-rise), or as a sequence of three tones (HLH or LHL) associated with a single domain (Gordon 2016). The diachronic pathways through which complex contours emerge have remained largely unexplored. How do complex contours develop in the first place?

Focusing on a genealogically diverse sample of languages of Asia, we explore the hypothesis that complex contours arise from contextual variation affecting falling tones and rising tones. While tonal realization is influenced by numerous factors, the present study focuses on assimilatory and dissimilatory processes, which can occur in anticipatory and carryover directions. For instance, in carryover assimilation, a preceding tone's low offset can carry over and lower the onset of the following target tone, potentially yielding complex contour variants, as observed for Thai (Potisuk et al. 1997). Conversely, dissimilation from an upcoming tone (such as Pre-Low Raising) can delay target attainment, resulting in a complex contour with a f0 turning point near the mid-syllable point (Burroni 2023). Rarer processes like anticipatory assimilation/dissimilation and their possible role remain largely unexplored.

Contextual tone variation data were collected from 35 languages across five families - Sino-Tibetan (24 languages), Kra-Dai (6), Hmong-Mien (2), Austro-Asiatic (2), and Japonic (1). For each language's tone system, the canonical form was taken as the input tone (typically the monosyllabic citation form). The outputs, i.e. surface forms in various contexts, were then categorized as level, falling, rising, rise-fall, or fall-rise. A complex contour output was identified by the presence of a turning point in slope direction after the first 25% of the rhyme duration. The environments of the processes responsible for generating these variants were also noted. Tone sandhi alternations, however, were excluded from the data.

The study's findings, visualized through an alluvial diagram (Figure 1), unveil pathways leading to the emergence of complex contour tones. The diagram traces the flow from simple input tones on the left to complex rise-fall and fall-rise contours on the right, mediated by distinct phonetic processes denoted by different colors. Notably, the high falling and low rising tones stand out as the most frequent input sources for the rise-fall and fall-rise contours, respectively.

Carryover assimilation, the most frequently reported process, generates rise-fall from falling and fall-rise from rising. Anticipatory dissimilation is the second most frequently reported process, and its effects remarkably mirror those of carryover assimilation. The less common anticipatory assimilation exhibits an opposite directionality, yielding fall-rise contours from falling tones and rise-fall from rising tones. A single instance of carryover dissimilation resulted in a low falling tone surfacing as a rise-fall contour.

These findings demonstrate how common phonetic processes can transform simple tones into complex contour variants, potentially sowing the seeds for future tone changes. The implication of these results is that complex contours may emerge from simpler tonal inputs through regular phonetic processes in connected speech.

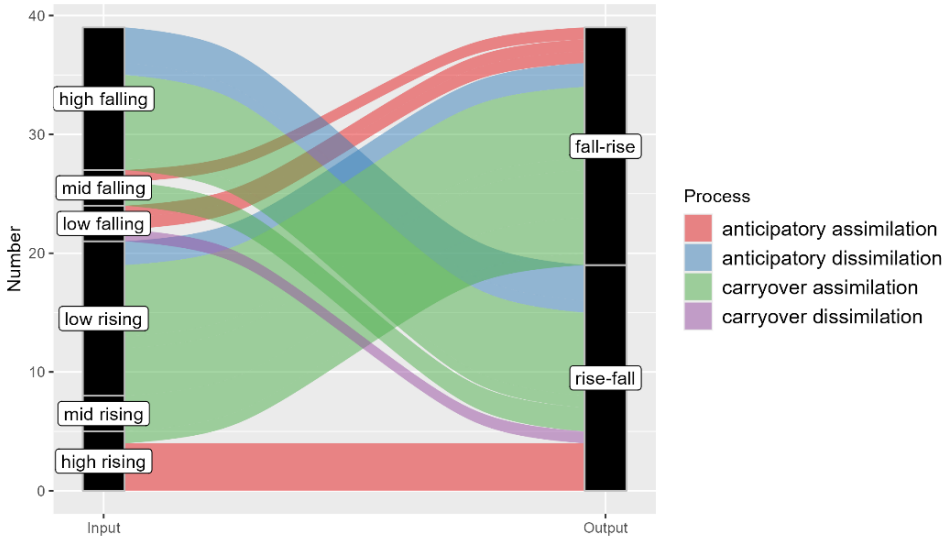

Figure 1: Inputs and processes that generate complex contours

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