

UNIVERSITY OF CALIFORNIA

Santa Barbara

The Verbal Morphology of Yonghe Qiang: an Eastern Himalayan Language

A dissertation submitted in partial satisfaction of the  
requirements for the degree Doctor of Philosophy  
in Linguistics

by

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September 2021

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June 2021

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Nathaniel A. Sims

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Carol Genetti, Kristine Hildebrandt, Nathaniel A. Sims, and Alexia Fawcett. 2020. Associated motion and directional marking in Tibeto-Burman. *Journal of Linguistic Typology*

Sims, Nathaniel A. 2020. Reconsidering the diachrony of tone in Rma. *Journal of the Southeast Asian Linguistics Society* 13(1): 53-80.

Sims, Nathaniel A. and Carol Genetti. 2017. The grammatical encoding of space in Yonghe Qiang. *Himalayan Linguistics* 16(1): 99-140.

Sims, Nathaniel A. 2016. Towards a More Comprehensive Understanding of Qiang Dialectology. *Language and Linguistics* 17(3): 351-381.

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Nathaniel A. Sims. 2011. Vowel harmony in Qiang: An Optimality Theoretic Account. ROA-1182 Rutgers Optimality Archive.

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## CONFERENCE PAPERS

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- 2017 *Argument Structure Functions of Spatial Encoding Sub-Systems in Tibeto-Burman Languages*  
Co-presenters Kristine Hildebrandt, Carol Genetti, Alexia Fawcett, and Patrick Hall.  
Association for Linguistic Typology Biennial Meeting  
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- 2017 *The suprasegmental phonology of proto-Rma (Qiang) in comparative perspective*  
Paper presented at the 50<sup>th</sup> International Conference on Sino-Tibetan Languages and Linguistics (ICSTLL)  
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4<sup>th</sup> International Conference on Language Documentation and Conservation  
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- 2016 *Negotiations of Ethnicity among 'Qiang-speaking-Tibetans': language as a tool for ethnogenesis.*  
Presented at the Interaction and Culture Across Languages (LISO)  
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- 2016 *High(land) fashion: Headdresses of the Sichuan 'Ethnic Corridor' and their social significance.*  
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- 2015 *An exploration of Qiang Ritual Language*  
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- 2013 *Towards a more comprehensive understanding of Qiang dialectology: New evidence  
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<i>Standard Tibetan</i>	Advanced speaking, intermediate reading and writing
<i>Yonghe Qiang</i>	Advanced speaking, research knowledge
<i>Luoduo Rma</i>	Intermediate speaking, research knowledge
<i>Amdo Tibetan</i>	Intermediate speaking
<i>French</i>	Reading competency
<i>Tangut</i>	Research knowledge
<i>Prinmi</i>	Research knowledge

## ABSTRACT

The Verbal Morphology of Yonghe Qiang: an Eastern Himalayan Language

by

Nathaniel A. Sims

This dissertation presents the verbal morphology of the Yonghe variety of Qiang through the lens of Radical Construction Grammar. Yonghe Qiang is a Tibeto-Burman language spoken primarily in Yonghe Township, Mao County, Aba Prefecture, Sichuan Province, People's Republic of China.

Chapter 1 (Context) provides background information on the Qiang language as well as the people who speak it. It discusses the place of Yonghe within the Qiang language-complex and gives comparative and philological evidence for the uniqueness of Yonghe compared to other varieties. It introduces and motivates the choice of Radical Construction Grammar as the framework for this dissertation. The conventions and empirical materials used throughout this work are also presented.

Chapter 2 (Segmental Phonology) presents the segmental phonology of the language, including the consonants and vowels. Empirical measurements such as waveforms and spectrograms are given for each relevant segment. Attention is given to the phonology of borrowings from Mandarin Chinese. Syllable structure is also discussed, along with utterance final phenomena such as glottalization.

Chapter 3 (Suprasegmental Phonology) presents the tonal melodies in lexical Nouns and Verbs in the language. The typological profile of tone in the language is given

consideration. The ways in which tonal Chinese loans are incorporated are treated in depth. The interaction between tone type and syllable length is explored through quantitative methodologies.

Chapter 4 (The Verb-Complex) introduces the verbal template, including the prefixal and suffixal slots. Yonghe constructions are sorted into four categories based on distributional analysis: Verbs, Nouns, Ideophones, and Interjections. Verbs are sub-classified into Active, Stative, and Existential based on their distributional and semantic properties. The chapter discusses the subtypes with respect to tone classes and reduplicative patterns. Noun-Verb compounds and their resulting tonal patterns are analyzed. A small class of bipartite verbs are introduced. The ways in which Chinese loanwords are incorporated into the Verb-Complex is discussed.

Chapter 5 (Prefixes) covers the orientational, aspectual, and modal prefixes. Of particular interest are the set of eight orientational prefixes, which have complex semantics ranging from literal direction marking to aspectual and modal meanings. The prefixes are discussed with reference to their phonological alternations which include tonal alternations and vowel harmony. The use of Chinese loans with Qiang prefixes is also discussed.

Chapter 6 (Suffixes) presents the numerous suffixal forms. The nominalizing suffixes, which have broad use and are a core feature of the morpho-syntax, are presented with some discussion as to their possibly etymologies. Two Associated Motion suffixes are discussed in the context of their interaction with orientational prefixes. Two valency increasing suffixes, the applicative, and the causative are analyzed. Lastly, discussion of the person marking suffixes is framed within the wider debate as to the antiquity of the paradigm and also within the broader system of epistemic marking suffixes.

Chapter 7 (Summary) examines the advantages and disadvantages of a Radical Construction Grammar approach to describing the language. The dissertation is then concluded with a discussion of future directions for the study of Yonghe Qiang verbal morphology.

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## *List of Abbreviations and Symbols*

ADJ	adjective	OBL	oblique
AM	associated motion	ORT	orientational marker
APPL	applicative	PART	particle
ASP	aspect	PAT	patient
AUX	auxiliary	PFV	perfective
BOR	borrowing	PL	plural
CAUS	causative	PN	personal name
CLF	classifier	POL	politeness
COND	conditional	PROH	prohibitive
CONT	continuative	PROS	prospective
COP	copula	P	person
CSM	change-of-state	Q	question
DAT	dative	REC	recent past
DEM	demonstrative	RED	reduplication
DIM	diminutive	REFL	reflexive
DISC	discourse marker	S	singular
EVID	evidential	SBJ	subject
EXC	exception	TNS	tense
EXCL	exclamation	TOP	topic
HORT	adhortative	VOC	vocative
IMP	imperative	=	clitic boundary
INV	inverse	.	syllable boundary
LNK	linker	:	lengthening
LOC	locative	-	morpheme boundary
NEG	negative		
NMZ	nominalizer		
NVOL	non-volitional		

## ***Chapter 1: Context***

This chapter gives context for the dissertation by giving a brief introduction to the Qiang language and the political and sociolinguistic situation for the people who speak the language. Fortunately, Qiang is relatively well studied and there is a great wealth of literature on issues pertaining to Qiang language and culture. Unfortunately, some of the terminology surrounding ‘Qiang’ is very confusing and requires some explanation. This chapter also introduces the empirical materials that form the basis for the dissertation and lays out the methodological framework.

Section 1 introduces the Qiang language and the people who speak it. Section 2 explores the broader genetic affiliation of Qiang. Section 3 introduces the Yonghe variety of Qiang, the focus of this dissertation. It covers the basic facts about the Yonghe variety and also gives evidence for this variety as unique from other documented varieties of Qiang. Section 4 introduces the empirical materials for this study as well as the theoretical and methodological framework for the dissertation. Lastly, section 5 gives an overview of Chapters 2 to 7.

### **1.1 Qiang**

The term 羌 ‘Qiang’ is a Chinese exonym with a long history of use. It is found in very old Chinese writings, dating back even to the Shang dynasty oracle bone inscriptions (1300 BCE), where it referred to any people groups to the west of Chinese territorial control (Wang M. 1999). The Chinese character comes from a pictogram comprised of 羊 *yáng* ‘sheep’ and 人 *rén* ‘people’. It is often said that the Qiang were a nomadic people before settling in what is now western Sichuan Province (cf. Beckwith 2009).



The modern Qiang, who are approximately 300,000 in number (LaPolla & Huang 2003) and primarily reside along the upper Min River in Sichuan Province, are one of the 56 different officially recognized nationalities of the People's Republic of China. The relationship between the Qiang people mentioned in the oracle bone inscriptions, written references to Qiang peoples from the later Han Period (25-200 C.E.) and the modern Qiang are is not clear. The early Qiang are probably the ancestors to all Tibeto-Burman speaking peoples and the modern Qiang are but one of their many descendant groups (LaPolla & Huang 2003; Wang M. 1999).

The speakers of the modern Qiang language did not identify as 'Qiang' until after the ethnic classification project of the 1950s (Wang M. 1999; Tshering 'Bum 2014). See LaPolla & Huang (2003) for an excellent introduction to Qiang traditional livelihood and culture. See Graham (1958), Zevik (2002) for an introduction to Qiang religious traditions and practices. Tshering 'Bum (2014) is a native speaker of Qiang who has written on the history of the formation of the modern Qiang ethnic identity.

Wang Mingke (1999, 2001) has written lucidly about the history and relationship between the ancient and modern Qiang. In his 1999 chapter "From the Qiang Barbarians to the Qiang Nationality: The Making of a New Chinese Boundary" clearly lays out the historical background for the connection between the modern and ancient 'Qiang' within the political context of the People's Republic of China. It is highly recommended that interested readers first read Wang M.'s chapter before returning to this dissertation, as it lays out the history of the development of 'Qiang' as a label in a rigorous way that cannot be replicated here in the interest of space.<sup>1</sup>

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<sup>1</sup> The chapter is available at the following link: <http://ultra.ihp.sinica.edu.tw/~origins/pages/barbarbook4.htm>

## 1.2 The Qiang language

The Qiang language refers here to a group of Tibeto-Burman language varieties spoken on the upper regions of the Min River in Sichuan Province, China. This has also been called ‘Qiang proper’ or ‘Qiang *stricto sensu*’ (van Driem 1993). These language varieties are spoken in Heishui County, Mao County, Wenchuan County, parts of eastern Li County and in parts of southern Songpan County. All of these Qiang varieties are unambiguously related to one another (Chang 1967; Evans 2001a-b). The Qiang proper varieties are not all freely intercommunicable, and there is great diversity within Qiang. Nevertheless, the core structure of the shape of the verb, the shared vocabulary, and the innovation of certain morphological sub-systems is solid evidence of their cladistic relationship to one another (Chang 1967; Sun H. 1981; Liu 1998; Evans 2001a, 2014).

Qiang language varieties are traditionally split into two major groups: Northern Qiang and Southern Qiang (Sun H. 1981; Liu 1998). These two groups have separate ISO 639-1 language codes, *cng* and *qxs* respectively. It is now recognized that the initial division into Northern and Southern is not entirely appropriate for several reasons. First, it is based on typological traits rather than shared innovations (Evans 2004). Second, some ‘southern’ varieties are spoken very far to the north in Songpan County (LaPolla & Huang 2003). Third, the ‘Northern Qiang’ varieties are internally more homogenous and probably represent a later expansion into the northwest whereas ‘Southern Qiang’ varieties are much less homogeneous and probably do not represent a cohesive clade.

Some work has been done which questions this binary classification (LaPolla & Huang 2003; Sims 2016; Evans & Huang 2007), but the careful work to establish subgrouping based on sound correspondences has not yet been carried out (see discussion in section 3.2). Figure

1 gives a map from Xun (2018: 218) which nicely illustrates the relative position of Qiang with respect to the other languages of the region.

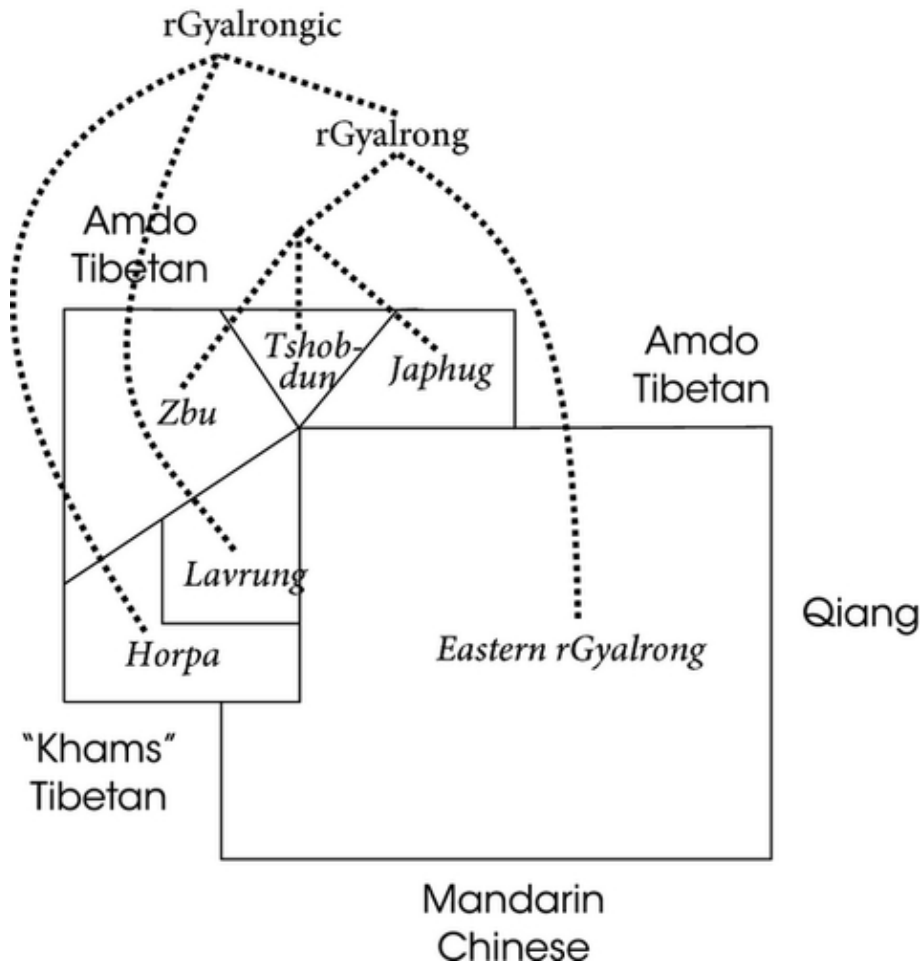


Figure 1. Languages neighboring Qiang

Figure 1 also highlights the relative lack of certainty about the internal structure of Qiang proper as well as uncertainty about its genetic relationship to neighboring languages.

The geographically northern varieties have more Tibetan loans (Liu 1998) whereas the geographically southern varieties have very strong influence from Chinese (Evans 2001a-b). The influence of Chinese on both the geographically southern varieties and the geographically northern varieties is stronger than the influence of Tibetan on either. Speakers from divergent varieties use Sichuanese Mandarin as a lingua franca. The influence of

Sichuanese Mandarin on the lexicon has been well documented (Evans 2001a-b; Stanford & Evans 2012).

### **1.3 The Qiang-speaking-Qiang and the Qiang-speaking-Tibetans**

The total number of speakers of Qiang is probably about 100,000 (LaPolla & Huang 2003).

The majority of Qiang people, who total 300,000 (2010 census), do not speak the Qiang language, but have shifted to using Sichuanese Mandarin. This figure of 100,000 Qiang speakers includes a group of about 50,000 people in Heishui County, at the upper reaches of the Min River, who speak ‘Qiang proper’, but were classified as Tibetans in the 1950’s due to their being adherents of Tibetan Buddhism as well as other political reasons. See Wang M. (1999) for a historical account by an outsider anthropologist. See Tshering ‘Bum (2014) for an account from the perspective of a native speaker of Qiang from northern Mao County. The Qiang language is spoken much more widely and is being passed more consistently across generations in the communities of ethnic Tibetans in Heishui County than by the ethnic Qiang in Mao, Wen, and Li Counties.

### **1.4 Rma**

Both the Qiang-speaking-Tibetans of Heishui County and the Qiang-speaking-Qiang of the more southern counties share an etymologically related autonym which is pronounced variously as: [rma, zme, mǎ<sup>1</sup>, mà, χma] among others (Wang M. 1999). Different groups may or may not recognize each other as falling under the same autonym and the autonoms cannot be fully equated with the government ethnic labels, even amongst those designated ‘Qiang’. For example, in Yonghe township in Mao County, there are people who speak Qiang who

belong to the Qiang ethnicity. These people generally self-identify as [mə<sup>1</sup>] in their mother tongue and as ‘Qiang’ in Chinese. They recognize people from other valleys in the surrounding area as also ‘Qiang’, but maintain that only people from Yonghe and the two neighboring townships of Goukou and Heihu are actually [mə<sup>1</sup>].

The Qiang-speaking-Tibetans of Heishui County generally strongly object to the characterization of their language as ‘Qiang’, which they see as derogatory and contrary to their identity as Tibetans (Tshering ‘Bum 2014). This has led some scholars sensitive to this issue to use the term ‘Rma’, an approximation of the autonym, in place of ‘Qiang’ (Evans 2009; Evans & Sun 2013; Sims 2016). This has its merits, but also further complicates an already complicated situation, and privileges one form of the autonym over others. This thesis will use the term ‘Qiang’ for the sake of simplicity, and also because it deals with a variety of Qiang spoken by people who are classified as belonging to the Qiang ethnicity and who generally have no issue with this label.

## **1.5 Written representations of Qiang**

Qiang does not have a written tradition, but there is an oral history of a ‘lost book’ (see Graham 1958). The oral tradition of a lost writing system is shared among many ethnic groups in this region. Historian James Scott has termed this region of highland southeast Asia ‘Zomia’ (Scott 2009) and has documented many different instances of what he terms ‘post-literate’ societies.<sup>2</sup> The possible relationship between Qiang and the medieval Tibeto-Burman

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<sup>2</sup> Scott’s (2009) notion of Zomia and his characterization of the highland Southeast Asia as an, egalitarian, post-literate, utopia has received much discussion since his book's publication. See Hammond (2011) for a clear-eyed review of this work, including its strengths and shortcomings.

language Tangut (11th century) suggests that these oral traditions should be taken seriously and we should not dismiss out of hand that the language previously had a written tradition.

In the 1980s and 1990s an attempt by various Qiang linguists and specialists was made to create a Latin-based script for the Qiang language. This script was based on the geographically northwestern Qugu variety of Mao County, and was for some time taught as an elective in public schools. The script has not seen widespread adoption. See LaPolla & Huang (2003: 3-5) for discussion as to why.

In 2017, Wei Jiuqiao created an original non-Roman script for the language which he calls the Rma script. This script, which is also based on the Qugu variety, has been promoted through grassroots movement using social media, but has not received widespread adoption as of yet.<sup>3</sup>

## 1.6 Genetic affiliation

This section covers the primary arguments concerning the relationship between Qiang and other Tibeto-Burman languages. ‘Qiangic’ is a putative branch of Tibeto-Burman family, which includes Qiang proper as well as various other languages purported to share a unique relationship with Qiang (Sun H. 2001). This proposed branch has also been called 西蕃 *xīfān* or Dzorgaish (see Sun H. 1981), though these terms are no longer in use.

The rates of cognancy amongst any two given Qiangic languages is reported to be less than 20% (Huang B. 1991: 355). However, without an understanding of the historical phonology of Qiang proper, it is possible that these cognancy counts either overlook dissimilar

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<sup>3</sup> An introduction to the Rma script can be found at this link: [https://www.youtube.com/watch?v=B\\_xhxpYPF8s](https://www.youtube.com/watch?v=B_xhxpYPF8s)

cognate forms or include superficially similar non-cognate forms, or both. It is not unfair to characterize the dozen or so languages of Sichuan that have been put together with Qiang into Qiangic as something of a grab-bag. I will not deal at length here with the many different configurations posited for this branch, but interested readers may see Chirkova (2012) for an overview. Xun (2020: 175 fn 2) writes about the status of the ‘Qiangic’ branch as follows:

Qiangic classification is less unproblematic than it seems, as the original criteria of a Qiangic language were of a typological character. Katia Chirkova (2012) challenged the notion of Qiangic as a genetic branch, by showing ways in which a language can areally acquire common Qiangic characteristics. Nevertheless, there is a core group, shown to be indeed closely related in Jacques (2014), which is called Northern Qiangic by Sūn Hóngkǎi (2001) and Macro-Rgyalrongic by Jacques (2014). This group includes at least Rgyalrongic, Qiang, Minyag and Pumi.

Jacques’ (2014) family tree is given in Figure 2.

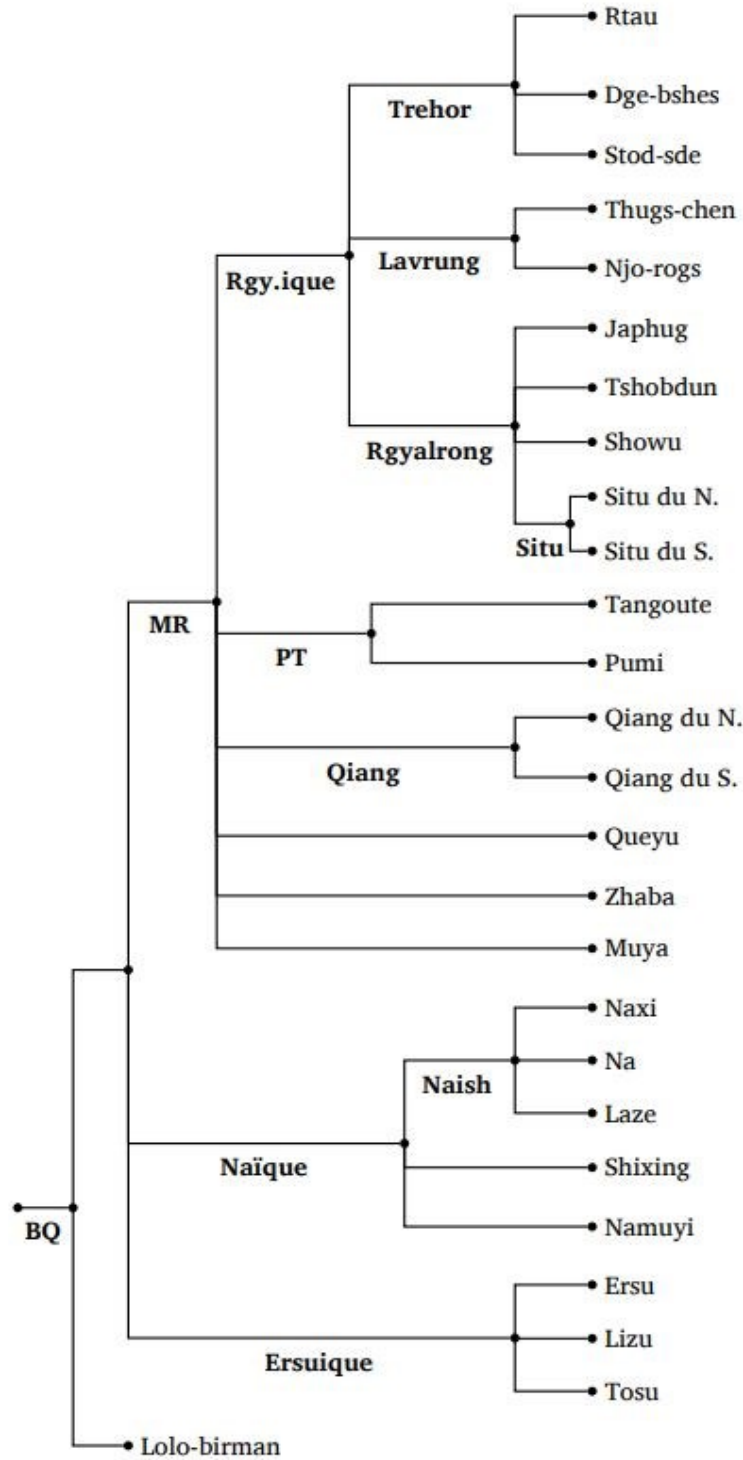


Figure 2. The Burmo-Qianguic Stammbaum from Jacques (2014)



The Rgyalrongic clade, which includes eastern ‘Rgyalrong proper’ and western Rgyalrongic has been validated on the basis of shared innovations by J. Sun (2002). Jacques (2014) does indeed demonstrate very convincingly that Rgyalrongic and Tangut are closely related and this has been confirmed in subsequent research (Xun 2016; Lai et al. 2020), which suggests that Tangut is indeed a western Rgyalrongic language. However, Jacques (2014) does not give explicit evidence for the relatedness of Qiang proper, Minyak (Muya) or Pumi to the Tangut-Rgyalrongic group.

Some potential evidence to support Jacques’ (2014) classification is that the tonal systems of Qiang proper and Tangut, are very similar, which may be in large part due to loss of historic consonant codas (Sagart 2006; Sims 2020). However, at this stage of knowledge we cannot entirely rule out that tonal similarities are due to parallel innovations.

Matisoff (2003) has proposed a sound change from  $*a > i$  as evidence for a close relationship of Tangut to other ‘Qiangic’ languages. However, this sound change has not been widely accepted for a number of reasons. First, As Chirkova (2012) points out, this sound change is not unique to ‘core Qiangic’ languages. Second, some of the words presented as evidence of  $*a > i$ , such as ‘salt’ and ‘rabbit’ are likely to be *Wanderworter* (Chirkova 2012). Third, this change is likely recent, as it applies to Tibetan loanwords in Rgyalrongic (Lai et al. 2020).

Ikeda (2007) presents a lexical set of about one dozen lexemes claimed to be shared by all ‘core Qiangic’ languages. However, without an adequate understanding of the sound correspondences, these lexemes alone are not convincing enough to warrant positing a cladistic relationship amongst these languages.

Ultimately, I believe that Sun H. (2001) and Jacques (2014) are correct to put Qiang proper, Pumi, and possibly Minyak together with Rgyalrongic and Tangut. However, the exact nature of the relationships remains to be worked out. In any case, the terms ‘Qiangic’ and ‘Macro-Rgyalrongic’ as names for this putative clade are rather undesirable in that they privilege one group over another. Furthermore, the use of the terms Qiang and Qiangic has sometimes led to confusion in the secondary literature.<sup>4</sup>

### **1.6.1 Broader genetic relationships**

At an even higher level, this set of ‘core Qiangic’ or ‘macro-Rgyalrongic’ languages has been argued as being part of a macro-group of ‘Burmo-Qiangic’, and that these languages are closer related to Burmese than to Tibetan to Chinese (see Jacques & Michaud 2011), and this ‘Burmo-Qiangic’ model has received some support from Bayesian phylogenetic models (Sagart et al. 2020). The lexical evidence for a Burmo-Qiangic group presented by Jacques & Michaud (2011) centers around the Rgyalrongic-Burmic connection and does not really involve evidence from Qiang proper. The evidence for these macro-groupings will need to be validated by future work based on solid reconstructions at the level of Qiang proper (van Driem 2017).

### **1.7 The Yonghe variety**

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<sup>4</sup> For example, DeLancey (2014b), citing LaPolla & Huang (2003), uses ‘Qiangic’ where it is clear from the context that he means ‘Qiang’ or ‘Qiang proper’.

This dissertation is focused on the variety of Qiang spoken in the Yonghe township in Mao County. The reasons for choosing the Yonghe variety as the object of this study are threefold. Firstly, a study of Yonghe would fill a lacuna in Qiang dialectology.

On a whole, Qiang is relatively well documented. Evans (2001a) gives an overview of linguistic research which has been carried out on various Qiang varieties up until that point. A revised and updated bibliography of Qiang linguistics can be found in LaPolla & Huang (2003)'s grammar of the Ronghong variety of Qiang. There have been published grammars of both northern and southern varieties of Qiang. These include: Taoping (Sun H. 1981), Ronghong (LaPolla & Huang 2003), Qugu (Huang & Zhou 2006), Puxi (Huang C. 2004), Mawo (Liu 1998), Longxi (Zheng 2017), and Luobuzhai (Wang B. 2017).<sup>5</sup>

However, there has been a paucity of work on eastern varieties. Figure 3 indicates the location of Yonghe (marked with a red star) relative to the other locations where grammars have been published (marked with yellow stars).

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<sup>5</sup> A grammar of a Songpan variety of Qiang is currently in preparation by Dr. Huang Chenglong.

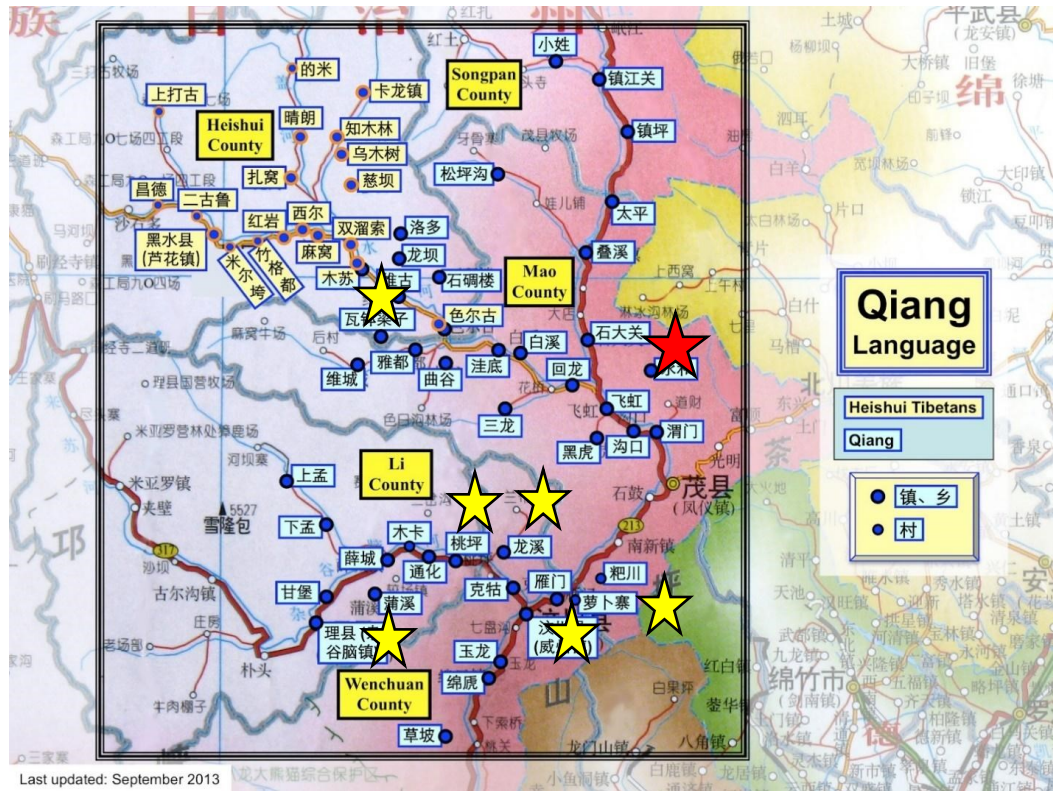


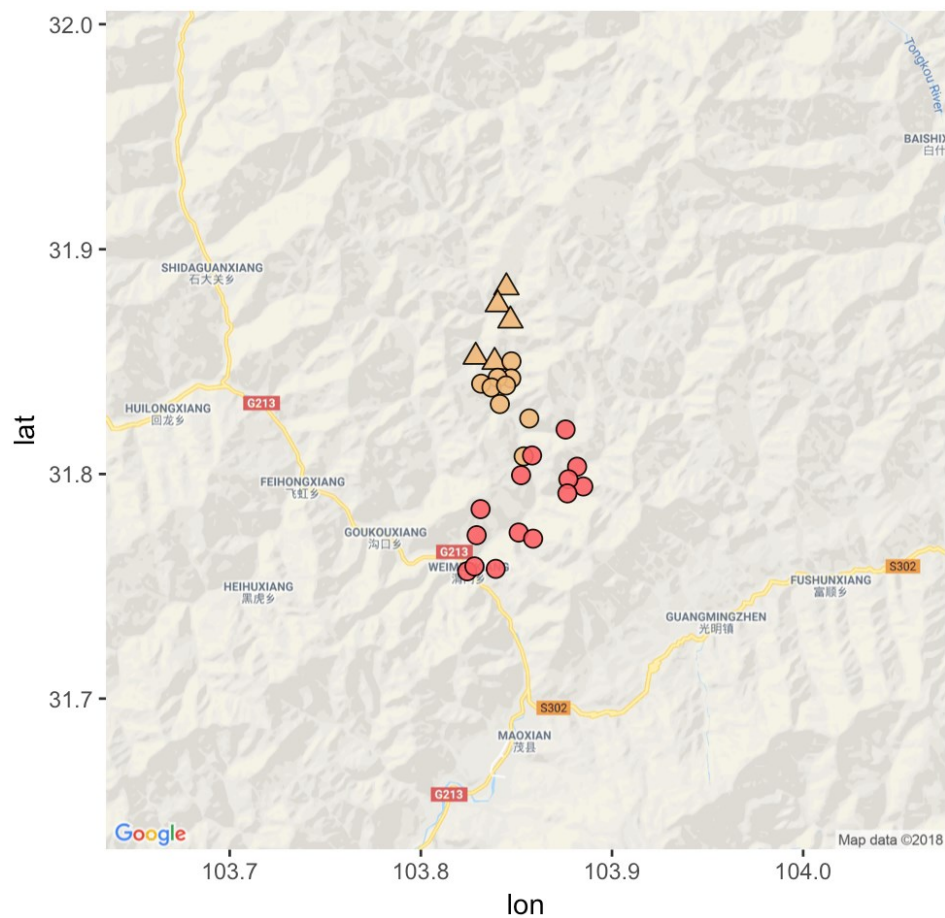
Figure 3. The location of Yonghe relative to other described varieties<sup>6</sup>

The second reason for selecting Yonghe is the endangered status of the variety relative to other varieties. As is the case for most minority languages of the People's Republic of China (Bradley 2006), use of the Qiang language is in decline. The cumulative and intersecting effects of social upheaval throughout the 20<sup>th</sup> century, such as the Great Leap Forward, and the Cultural Revolution, and forced collectivism have greatly challenged the stability of the Yonghe Qiang speaking community. Ongoing language shift to Sichuanese Mandarin was catalyzed by the 7.9 magnitude earthquake which struck Rngaba prefecture on May 12<sup>th</sup>, 2008. In the Yonghe Valley, many traditional wood and stone homes were destroyed and there was an out-migration from the valley into subsidized housing developments in the county seat. As a result, fewer traditional cultural activities are taking place in the villages.

<sup>6</sup> This map is taken from <https://www.sichuanzoulang.com/>

### 1.7.1 Degree of endangerment

While all varieties of Qiang might be considered on some level threatened or endangered (Chen et al. 2001), Yonghe Qiang is especially so. The total population of the Yonghe Valley is 3,322 (2010 census), yet the number of fluent speakers is probably less than 2,000. There are very few, if any, monolingual speakers. The language is only being learned and spoken by children in four of the northernmost villages. Figure 2. shows the linguistic situation for the villages in Yonghe Valley. Red circles indicate villages where people are generally monolingual in Chinese. Orange circles represent villages where most people are bilingual in Qiang and Chinese. Orange triangles mark villages where children are acquiring Qiang.



*Figure 4. Linguistic situation for villages in Yonghe*

The third reason has to do with my own familiarity with the Yonghe variety. I have had the privilege of learning Yonghe Qiang since 2006. I spent extended periods of time in Mao County studying Yonghe Qiang during the summers of 2013-2016, the winter of 2018, and spring of 2019. In 2018, I had the privilege of being a visiting scholar at the Southwest University for Nationalities while working on a grant doing collaborative work to document Yonghe Qiang for the Endangered Languages Documentation Programme. Since 2007, I have been working together closely with Mr. 杨芝全 Yang Zhiquan, who is a 释比 *shibi*, or a traditional religious practitioner from Ka'er Village to record different aspects of the language including language used in religious ceremonies. Since 2017, I have worked with Ms. 白建琼 Bai Jianqiong of Lapu Village to collect, transcribe, and annotate Qiang texts. None of this work would have been at all possible outside of these collaborations.

### **1.7.2 Relationship of Yonghe to other varieties**

Qiang dialectology is still an underdeveloped field of study. Evans (2007) does some subgroup analysis based on morphology, but does not use evidence based regular sound change. Sims (2014) asks the question of whether Yonghe is a 'northern' or 'southern' variety of Qiang and finds the north-south dichotomy to be inadequate for understanding the place of Yonghe. Sims (2016), following the methodology set out in LaPolla (2013), attempts to set up paradigmatic lexical sets to give 'statistically significant' evidence that Yonghe is distinct from both 'northern' and 'southern' varieties. The evidence presented by Sims (2016) is based on a few sets of lexemes, and is, in retrospect, not very compelling. It also points out a weakness in the approach advocated by LaPolla (2013), in that the selection of

which lexemes to analyze ‘as a set’ is somewhat arbitrary and leaves the door open to methodological opportunism (see also discussion of this point by DeLancey 2014b).

In historical linguistics it is better to use regular sound change, which is less easily borrowed, as the basis for subgrouping (cf. Hill 2019a). One of the sound changes unique to Yonghe Qiang is the development of Proto-Tibeto-Burman *\*ak* into [ǎ]. Table 1 gives evidence of this sound change. Evidence of the *\*ak* rhyme comes from languages which preserve PTB codas such as Written Tibetan, Burmese, and Japhug Rgyalrong (Jacques 2020). Pre-Burmese forms are from Hill (2019). Note that Written Tibetan <ag> corresponds to Pre-Tibetan *\*ak* (cf. Hill 2019a). The Longxi Qiang data are from Evans (2001a). Ronghong Qiang data are from LaPolla & Huang (2003).<sup>7</sup>

<i>Burmese</i>	<i>Tibetan</i>	<i>Japhug</i>	<i>Longxi</i>	<i>Yonghe</i>	<i>Ronghong</i>	<i>Gloss</i>
--	--	ɛpaᵛ	pʲà	ɸǎ	ɛpʲe	‘to thirst’ <sup>8</sup>
<i>wak</i> < <i>*C-pak</i>	ཕག <i>phag</i>	paᵛ	pʲà	pǎ	pʲe	‘pig’
<i>rak</i> < <i>*C-tak</i>	བརྟག <i>btag</i>	taᵛ	teà	tǎ	tɛe	‘to weave’
--	ཡག <i>jag</i>	--	jà	jǎ	je	‘to be good’
<i>ryak</i>	མག <i>zhag</i>	tx-rzaᵛ	.rà	jǎe ~ jǎe	--	‘night’ <sup>9</sup>
--	--	jaᵛ	ʃà	lǎ	ʃe	‘to be thick’ <sup>10</sup>

<sup>7</sup> The treatment of medials follows Evans & Sun (2013). The original publications represent, for example, the forms for ‘pig’ are given as [pià] and [pie] in Evans (2001a) and LaPolla & Huang (2003), respectively. See J. Sun (2003), Evans & Sun (2013) for discussion of the medials.

<sup>8</sup> The tone is irregular in Yonghe. It may be due to the subsequent loss of the complex onset.

<sup>9</sup> See Jacques (2014: 135) for a detailed discussion of the etymology of this form. In Burmese and Tibetan, the form means ‘24-hour period’. In Japhug Rgyalrong and Qiang the form means ‘night’. The [ɿ] initial in Longxi is more conservative. The Mianchi variety of Qiang also preserves the rhotic onset: [zɿ] ‘night’. Yonghe has merged [j] and [ɿ]. The varied tone for the Yonghe form is because this form is a bound form which occurs with a number. Thus, ʒǎ-jǎe ‘one night’ and hǎ-jǎe ‘that night’.

<sup>10</sup> This form means ‘to be thick (of clothing)’. Thanks to Guillaume Jacques for pointing out this potential Japhug cognate, *per literas* April 18, 2020.

--	--	qak	teuà	kyǎ	tɛye	‘hoe’
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Table 1. \*ak > Yonghe [ǎ]

We see that Yonghe has [ǎ] where Longxi and Ronghong [e] or [à] respectively. These correspondences are also interesting in that they show that Yonghe has low-(rising) tones which correspond to low tones in Longxi, and toneless syllables in Ronghong.

Both Longxi and Ronghong have undergone palatalization whereas Yonghe has not.<sup>11</sup> Another way of looking at this would be to posit a shared change between Yonghe, Longxi, and Ronghong: \*ak > æ, and then in Longxi and Ronghong [æ] broke into [ja]. Then Ronghong [a] raised to [e] before palatals. In any case, palatalization is a very common sound change, and the presence of palatalization in Longxi and Ronghong should not necessarily be taken as evidence for a close relationship between Longxi and Ronghong.

Much more comparative work is needed to understand the genetic subgrouping of Qiang, but the solid correspondences given in Table 4 should be sufficient to substantiate the uniqueness of the Yonghe variety with respect to other varieties. Moving forward, this sound law can be used as a bedrock for future subgrouping.

### 1.7.3 Internal diversity of the Yonghe variety

The Yonghe variety is somewhat varied, with lexical differences between the villages in the back of the valley and those towards the center of the valley. It is often noted by interviewees that the speech of Lili Village, the northernmost village, is different and easily recognizable as such. The corpus draws on recordings primarily from speakers hailing from Lapu Village

<sup>11</sup> Note also the Taoping (Sun H. 1981) forms [pa<sup>33</sup>] ‘pig’, [la<sup>33</sup>] ‘to be thick’, which lack palatalization and have the same vowel and tone correspondences.



and Ka'er Village. There are some minor differences between the two, but these differences are very minimal and will not be discussed in this dissertation.

#### **1.7.4 Prior work on the Yonghe variety**

Aside from a small number of Yonghe sentences in Huang C.'s (2010) article on case marking in Qiang, there are few published studies of Yonghe. Thus far, the only publications on Yonghe Qiang are Sims (2014, 2016, 2017, 2018, 2020), and Sims & Genetti (2017).

Sims (2014) is a brief account of the segmental phonology of Yonghe and does not deal with suprasegmental phonology in an adequate way. Sims (2016) explores Yonghe's place within the Qiang dialect-continuum, but the results are not very strong because of an over-reliance on lexical isoglosses as opposed to shared sound changes or paradigmatic morphological evidence. Sims (2017) is a study of the suprasegmental phonology of Nouns. It is an improvement on Sims (2014) in that it recognizes phonemic tone but has issues with respect to the analysis of the tonal and accentual system.

Sims & Genetti (2017) describe how spatial concepts are expressed in the language. The article includes discussion of the six different Existential Verbs as well as the eight different verbal orientational prefixes found in the Yonghe variety. Sims & Genetti (2017) was based on a smaller version of the current corpus, approximately 5,000 transcribed words.

Sims (2018) is an Endangered Languages Documentation Programme (ELDP) deposit with 45 hours of connected speech, seven hours of which have been annotated.<sup>12</sup> The deposit contents are as follows: 364 .JPEG images, 56 .MP4 video files, and 3,449 .WAV audio files, as well as 213 annotation (.eaf) files, 10 .CSV files, and 1 FLEEx project backup file. Lastly,

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<sup>12</sup> The deposit is open access and available at the following link: <https://www.ELARarchive.org/dk0551>

Sims (2020) is an account of the diachrony of tone in Qiang, which includes original data from the Yonghe variety as part of the argumentation.

## 1.8 The empirical materials and research framework

This section introduces both the empirical materials and research framework for the present study.

### 1.8.1 Empirical materials

This study will draw from two complementary primary data sources. The first is a corpus of texts, recorded between 2007 and 2019 and archived with ELAR as Sims 2018. These texts include traditional and personal narratives as well as interviews and spontaneous conversations. A subset of these texts has been transcribed in ELAN and glossed using Fieldworks Language Explorer (FLEX). The statistics for the transcribed portion of the corpus of Yonghe texts are given in Table 2.

<i>Type</i>	<i>Number</i>
Total sentences	32,025
Unique words	37,061
Qiang words	77,388
Chinese words	17,453
Total word count	94,841

Table 2. Statistics from the FLEX corpus of Yonghe Qiang texts

The second data source is from elicited forms, sentences, and paradigms. See Mithun (2001) for a discussion of the necessity of eliciting paradigms to supplement forms not found in texts.

These data should not be taken as reflecting the proportion of Qiang to Chinese in everyday conversation. The ratio here is skewed heavily towards Qiang due to the traditional narratives and ritual language. In keeping with the principles of the "Linguistic Linked Open Data" as well as in Berez-Kroeker et al. (2017), data are cited directly from open-access repositories via linked digital object identifiers.

### **1.8.2 Research framework**

This dissertation will work inductively to analyze the verbal constructions in the corpus, and pursue functional (typological, historical, and interactional) approaches to explanation of those structures. These approaches include both qualitative and quantitative methodologies.

Functional approaches to explanation in linguistics are varied (see Nichols 1984 for an overview). A commonality across functional approaches is the belief that linguistic structures emerge from communicative practices. The formal properties of linguistic structures are therefore rooted in the functions for which they are used in communication and that “grammars encode best what speakers do most” (Du Bois 1985: 363).

For this study, I use Radical Construction Grammar (Croft 2001) as the basic framework for describing the constructions in the language. Radical Construction Grammar is a non-reductionist framework that treats the ‘construction’, a learned pairing of form and function, as the basic unit of analysis. This involves ‘sticking to the facts of the language’ (LaPolla

2016a) and working to avoid imposing outside categories unnecessarily. The following section introduces Radical Construction Grammar (hereafter RCG).

### **1.8.3 Radical Construction Grammar**

There are a wide range of differing linguistic theories of grammar. Some of the prominent theories in Western academia include Government and Binding Theory (Chomsky 1981) and Minimalism (Chomsky 1995), Head-driven Phrase Structure Grammar (Pollard & Sag 1993), Lexical Functional Grammar (Bresnan 1982), Role and Reference Grammar (Foley and van Valin 1984; van Valin 1993; van Valin & LaPolla 1997), Functional Grammar (Dik 1997), Systemic Functional Grammar (Halliday 1973), Word Grammar (Hudson 1984, 1990), and also Basic Linguistic Theory (Dixon 2010).

RCG is fundamentally different from all the above-mentioned theories of grammar (see discussion in Croft 2001: 3). RCG was developed “in order to account for the diversity of the syntactic facts of a single language as well as the syntactic diversity of the world’s languages.” (Croft 2001: 3). In his introduction to RCG, Croft (2001) states that:

Radical Construction Grammar is radical in that it represents a dramatic break from prior syntactic theories. In this book, I argue that virtually all aspects of the formal representation of grammatical structure are language-particular. In other words, Radical Construction Grammar does away with virtually all of the syntactic apparatus that populate other syntactic theories.

RCG emerged from “a reassessment of the methods of syntactic argumentation used by linguists since at least the structuralist period.” (Croft 2001: 3), however RCG is not the first iteration of construction-based approaches to grammar. The central insight of RCG has its roots in the analysis of idioms (Langacker 1987, 1991a-b). Idioms, such as ‘kick the bucket’, or ‘to pull someone’s leg’ present massive problems for many theories of grammar which assume a building-block theory. This is because idioms have predictable syntax with unpredictable semantics. The study of idioms led scholars such as Langacker to develop the notion of the *construction*, a learned pairing of form and meaning, as a way of accounting for idioms. It was later recognized that not only idioms, but all elements of language are constructions. Croft (2001) states the following:

The constructional tail has come to wag the syntactic dog: everything from words to the most general syntactic and semantic rules can be represented as constructions. The final step is to recognize that the internal structure of words are also constructions. After all, a construction like [The X-er, the Y-er] or [pull-TNS NP-’s leg] includes bound morphemes and/or clitic elements in its syntactic representation. One can have fully morphological constructions such as [NOUN-s] (partially schematic) or [VERB-TNS] (wholly schematic), while an individual word form like *children* is a wholly substantive morphological construction. The only difference between morphological constructions and syntactic ones is that the former are

entirely made up of bound morphemes while the latter are largely made up of free morphemes.

The basic element within RCG is the construction, a learned pairing of form and meaning. The primitive status of constructions and the nonexistence of primitive syntactic categories, such as Noun and Noun Phrase, or Verb and Verb Phrase, is the central thesis of Radical Construction Grammar. For a detailed argument against syntactic categories, the reader is directed to Croft (2001: 20-50). This thesis shares the view that attempts to instantiate cross linguistic categories suffer from methodological opportunism in emphasizing similarity in some regards while ignoring dissimilarities.

In RCG, there is no difference between syntax and lexicon. They are all constructions. However, constructions vary along certain dimensions, such as schematicity, specificity and complexity, atomicity, and boundedness. Table 6, adapted from Croft (2001: 17), gives a typology of constructions according to these dimensions. This table adds to Croft's list the category of prosody, which is constructional and entirely schematic.

<i>Construction Type</i>	<i>Traditional Term</i>	<i>English Examples</i>
Atomic and entirely schematic	prosody	<i>mom</i> (regular intonation) vs. <i>mom!</i> (annoyed intonation)
Complex and (mostly) schematic	syntax	SBJ be-TNS VERB-en by OBL
Complex and (mostly) specific	idiom	<i>pull</i> -TNS NP-'s <i>leg</i>
Complex but bound	morphology	[NOUN-s] [VERB-TNS]

Atomic and schematic	syntactic category	[DEM], [ADJ]
Atomic and specific	word/lexicon	[this], [green]

*Table 3.* A typology of constructions

The fundamental principle for analysis within RCG is ‘distributional analysis’. By observing which constructions occur in which ‘meta-constructions’, or ‘frames’, we can classify them according to the constructions that they participate in. For an introduction to distributional analysis, see Croft (2001: 10-12). Semantically based categorization does not work for differentiating constructions (Croft 2001: 13). Put differently, this kind of semantically based distinction is intuitive only when projecting intuitions from the semantics of one language onto another. Distributional analysis allows us to identify categories language-internally. However, there are problems when comparing the resulting categories across languages.

We can use distributional analysis to identify a class of English constructions known as ‘Verbs’ and define ‘Verbs’ as constructions which participate in a certain set of inflectional constructions that are known as tense, aspect, or mood marking constructions. However, a language such as Vietnamese, which has no inflection whatsoever, does not allow us to apply the same criterion. The question of whether or not Vietnamese “has verbs” is not a meaningful question within the framework of RCG. Croft (2001: 30) also brings up the case of the Makah language, a Native American language of the Pacific northwest (Jacobson 1979: 110-11). Croft points out that Makah “has inflections for Agreement, Aspect, and Mood, which are used as criteria for the category Verb in English and other European languages. But virtually all semantic classes of words can be inflected for Person-Aspect-Mood in Makah, including what are English Verbs, Nouns, Adjectives, and Adverbs. On this issue Croft notes (2001: 30).

Again, the distributional method does not tell us whether or not the category defined by Person-Aspect-Mood inflection in Makah is the same as the category defined by Person-Tense-Mood inflection in English. Like the problem of missing constructions [no inflection in Vietnamese], the problem of wildly different distribution [in Makah] is a cross-linguistically common one. Languages differ considerably in the range of words that occur in either nominal or verbal inflections.

Croft (2001: 33) discusses the issue of cross linguistic comparison as follows.

The problems with applying the distributional method across languages involve constructions and the distributional patterns they define, not any particular functionalist analysis of the constructions and their distributional patterns. The argument against universal categories and relations is a fundamentally EMPIRICAL one. Moreover, the empirical argument against universal categories is not based on an esoteric fact of a single little-known language; it is based on the well-known and pervasive grammatical diversity of languages. [emphasis in original]

Croft (2001: 45) goes on to state:



The real problem is in a logical inconsistency in the way the distributional method is used, given the fact of distributional mismatches among constructions. The distributional method is combined with the theoretical assumption that the categories/relations defined by constructions are the syntactic primitives used to represent grammatical knowledge. CONSTRUCTIONS ARE USED TO DEFINE CATEGORIES—this is the distributional method. BUT THEN THE CATEGORIES ARE TAKEN AS PRIMITIVE ELEMENTS OF SYNTACTIC REPRESENTATION AND ARE USED TO DEFINE CONSTRUCTIONS—this is the syntactic model of representation. THIS APPROACH IS CIRCULAR. It would not be circular if there were no distributional mismatches, because the facts of language would then conform to the theoretical assumption. But the facts of language are otherwise. [emphasis in original]

The claims of RCG have been borne out in empirical studies of distributions of constructions.

Croft (2001: 36) states:

This is not simply a matter of speculative extrapolation: this conclusion has also been empirically verified in at least one large-scale formal grammatical model. In a very large grammar of French developed by Maurice Gross and colleagues, containing 600 rules covering 12,000 lexical items, no two lexical items had exactly the same distribution, and

no two rules had exactly the same domain of application (Gross 1979: 859–60).

RCG is fundamentally an empirical framework and has some overlap with the philosophical ‘radical empiricism’ in the tradition of William James (1907). There are, of course, limits to empiricism, but to the extent possible, statements about language should be empirically verifiable.

### *1.8.3.1 RCG and terminology*

The question arises of what to call the constructions that we find in a language such as Yonghe Qiang, if we are not invoking universal building-block categories, what do we call the constructions? LaPolla (2016: 14) discusses how this issue can be handled.

In a recent inductive study of Tagalog phrase structure (LaPolla 2014), I did not find anything that could be labeled “noun phrase” or “verb phrase”, and so had to label the constructions found with other more language-specific labels. Often when this is done, linguists working on other languages find that in fact they have found a construction similar to that one in the language they are working on, and so a label gets established in the literature, such as happened in recent times with the use of “ergative” and “evidential”.

The role of the typologist is to compare actual languages to one another and point out their similarities and dissimilarities, and not to shoe-horn one language into a set of universal set of terms. Nathan W. Hill (2017: 135) writes the following about typology.

If a student working on a far-flung language finds a grammatical phenomenon he is unsure how to describe, he rummages through the linguistic literature for analogues to serve as inspiration. This groping for labels results in terminological choices that in hindsight may seem unfortunate. For example, in Classical Tibetan ‘terminative’ refers to a case with the allomorphs -tu, -du, -r, and -su that is used for destinations of movement or transformations, equivalent to ‘to’, ‘into’ or ‘as’ in English (Hill 2011: 19-35), but cases known as ‘terminative’ in other languages such as Basque -ra-ino or Hungarian -ig instead correspond in meaning to English ‘up to’ or ‘until’ (Creissels 2008: 610, 619). Since the relationship between signifiant and signifié is arbitrary no harm need arise from such situations. The use of the term ‘aorist’ to describe verbal forms of very different meaning in Greek and Tuareg poses no danger either to the classicist who knows that ἔλθον ‘went’ is an aorist or to the Berberist who knows that ḏqqəl ‘will return’ is an aorist (Belkadi 2013: 137). On the other hand, the typologist lives in ubiquitous and constant danger of presuming that ἔλθον and ḏqqəl are incarnations of a ‘true aorist’. **There is no grammatical category in any language that refers to the same concept as the grammatical category of another**

**language for the simple reason that the two categories will face differing structural oppositions;** to speak of a ‘true evidential’ (DeLancey 2001: 376), ‘true mirative’ (DeLancey 2012: 553), or ‘true egophoricity’ (DeLancey 2012: 555), etc. is always a mistake. **To have any concrete meaning the chain of analogies a typological term gestures to must be moored to a particular phenomenon in a particular language.** To say of *ni* and *kyañ* in Classical Tibetan that they are similar in function to *wa* and *mo* in Japanese is more succinct, accurate, and verifiable than to say that *ni* is a ‘subject particle’ (Miller 1970: 90), ‘Isolationspartikel’ (Hahn 1996: 63), ‘topicalizer’ (Beyer 1992: 275), or whatever. The typologist should serve as matchmaker in such a case between the Tibetologist and the Japanologist. By aggregating observations on phenomena in diverse languages the typologist lowers the transaction cost for an investigator looking at a tidbit in one language to find a tidbit in another that he might find interesting. For typology to provide a milieu to assist those confronting the analysis of a specific language in understanding what they witness with greater insight, that is goal enough. For this purpose he assembles a menagerie, a cabinet of curiosities that may be more or less skillfully curated. The temptation remains imminent to slip from describing *ni* to describing subjecthood, topicality, or whatever, but subjecthood and topicality are not things in the world; *ni* and *wa* are. [emphasis added]

I follow Comrie (1976) and Bybee (1985) in the convention of capitalized names for language-specific constructions. Thus, ‘the Qiang Verb’, is defined on distributional principles rather than on semantic definitions or universalist building-block models of language. I also take Hill’s point and try to compare the constructions of Yonghe Qiang with real constructions in real languages rather than a terminology based on unanchored abstractions.

### *1.8.3.2 RCG and evolution*

Functionally similar constructions across languages may be similar or dissimilar based on their evolutionary pathways (Givón 1995). Constructions may function similarly and still have different evolutionary pathways. Looking only at the function of linguistic structures would be akin to saying that a bird and a bee are ‘both things that fly’ (see discussion in LaPolla 2016a). Because, linguistic structures are dynamic rather than static, an understanding of the diachronic, evolutionary origins of a construction or family of constructions, including its position along known evolutionary pathways of development (cf. Bybee et al 1994; Blevins 2004) are relevant for synchronic analysis.<sup>13</sup>

This study will make full use of evidence from other varieties of Qiang, as well as recent advancements in the linguistic study of Pumi (Daudey 2014b; Ding 2014), Tangut (Jacques 2006, 2014; *inter alia*; Gong X. 2020) and Tibetan (Gong X. 2016; Hill 2019a). Tangut is particularly important due to its apparent relationship to Qiang (Wolfenden 1931; Sun H.

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<sup>13</sup> Evolutionary biological metaphors for linguistic structures are not without their own problems, linguistic structures evolve ‘vertically’ through accrual of language internal developments and also ‘horizontally’ from influence of other languages. Biological forms are analyzable in terms of discrete units such as sequences of DNA, however, there are not discrete units that apply to all languages.

1981; Jacques 2014), early attestation (11<sup>th</sup> century), and growing body of comparative literature (Jacques 2014; *inter alia*).

### 1.8.3.3 RCG, units, and phonology

The primary focus of this thesis is on constructions relating to ‘the Yonghe Qiang Verb’. However, in order to give a foundation for understanding the language, it also introduces the sounds of the language. Some discussion of how phonological analysis is conceptualized within the framework of RCG is given here.

The reduction of observable speech-acts in the world into written symbols on a page involves a considerable loss of information.<sup>14</sup> The measurable properties of speech, such as pitch, intensity, rate, and duration, are gradient properties. Yet orthographies, including the International Phonetic Alphabet, force categorical distinctions such as [a] vs. [æ]. Written representations of speech as sequences of atomic units, such as consonants or vowels, do not reflect the richness of mental representations (Port 1996). The degree of precision with which an individual performs an ostensive speech-act is influenced by language-internal factors, such as the construction frequency (Pierehumbert 2001), as well as extra-linguistic factors, such as how well the speaker knows the addressee, how noisy the environment is, or how tired the speaker is, among countless other factors.<sup>15</sup>

Structural linguistics is, as Ladefoged (2006) put it, “a game of let’s pretend”. This game involves positing ‘units’ or ‘levels’ of linguistic structure, including ‘phones’, ‘phonemes’, ‘morphemes’, ‘words’, ‘intonation units’, ‘prosodic sentences’, and all sorts of other ‘units’ of communication. All of these categories are emergent (see discussion in Hopper 1987,

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<sup>14</sup> The unit of ‘speech-act’ is simply a term of convenience.

<sup>15</sup> The division between ‘language-internal’ and ‘extralinguistic’ is not always clear.

1988, 2011). Linguistic patterns are emergent and emerge in discourse during the process of interaction (Bybee 2006; Hopper 2011, 2012; Thompson & Couper-Kuhlen 2005). All of these units are epiphenomenal and emerge from constructions, which are basic (Croft 2001, 2010).

Looking at the issue of Intonation Units, a basic unit in the Santa Barbara School of Linguistics (Chafe 1994; *inter alia*) we find that the ways of defining and delineating these units are unclear. In her book-length treatment of this issue, Bart-Weingarten (2016: 21) notes the problem as follows:

Intonation units have been notoriously difficult to identify in natural talk. Problems include fuzzy boundaries, lack of exhaustivity, and the potential circularity involved when studying their interface with other language-organizational dimensions.

Bart-Weingarten's (2016: 44) proposed solution is the 'cesura' approach. The approach is as follows:

Cesuras, or breaks in the flow of talk, are created by discontinuities in the prosodic-phonetic parameters of speech that cluster to various extents at certain points in time. Using conversation-analytic and interactional-linguistic methodology, the volume identifies the parameters creating cesuras in talk-in-interaction and proposes ways to notate them depending on the researcher's goal. It also offers a way to

study the role of cesuras at the prosody-syntax interface non-circularly, which leads to new insights concerning language variation and change.

The problem is that ‘cesura’, like any other unit, faces the same problems as do Intonation Units themselves. Bart-Weingarten’s solution is merely to turn the problem on its head. The issue of ‘units’ prevails in this school of thought. While structuralists use a coding and decoding metaphor to understand language (Wilson & Sperber 2002), but communication is organic and is based on ostentation and inference rather than on ‘units’ (see LaPolla 2015b).

Let us examine the more pertinent issue of the phones and phonemes. Both phones and phonemes are emergent and epiphenomenal. This fact has been demonstrated empirically (see Port & Leary 2005). As Chao (1930) has pointed out, there is a non-uniqueness to the phonemic solutions to phonetic problems. One way of looking at the difference between phonetics and phonology is that phonology is broad phonetics and that these are two sides of the same coin. Because synchronic phonology is essentially historical phonetic change at a shallow time depth (Port & Leary 2005), a knowledge of the historical phonology of a language can inform choices for synchronic analyses.

Phonology does not play a significant role in RCG because the unit of analysis for RCG is the construction. Sound patterns which emerge epiphenomenally from constructions are gradient, have fuzzy boundaries, and can be represented using prototype theory (Pierrehumbert 2001, 2003). This is in contrast to a building-blocks approach that uses feature-theory to describe the phonological patterns in a language. The approach of this thesis is to strike a balance between parsimony of inventory and fidelity to phonetic reality. Thus, it gives consideration to common principles of structuralist linguistics, such as contrastive



distribution and the comparative method, in order to sort the sounds in the corpus into broad, abstract categories such as /k/ and /i/, while also giving concrete phonetic measurements to show some of the variability masked by the idealizations of structuralist linguistics.

Unfortunately, linguists do not have the luxury of approaching the structural description of another language from a blank slate. As a way of counterbalancing this bias, I have included audio recordings of all the words in the phonology chapters and welcome corrections and other opinions about the sounds in question.

#### *1.8.3.4 RCG in Sino-Tibetan/Tibeto-Burman*

RCG has been productively applied to the study of Sino-Tibetan/Tibeto-Burman languages<sup>16</sup>, most notably by Randy J. LaPolla. LaPolla (2013) uses the RCG framework to give an account of constructions in Chinese which do not fit into the traditional grammatical categories of Noun and Verb. By not assuming that Noun, Verb, Subject and Object are relevant for Chinese, LaPolla is able to make sense of certain constructions, including ‘the *ba* construction’, ‘the *de* construction’, and the ‘topic-comment construction’ (LaPolla 2013), which have been long standing problems for traditional models of grammar that assume Nouns and Verbs, Subjects and Objects. Chinese is rich with traditional literary and colloquial four syllable 成语 *chéngyǔ* or idiomatic expressions. For example, 狼吞虎嚥 *lángtūnhǔyàn* (lit. ‘wolf-swallow-tiger-devour’) meaning ‘to eat ravenously’ or 画蛇添足 *huàshétiānzú* (lit. ‘paint-snake-add-feet’) meaning ‘to fix something unnecessarily’. Chinese also has a wealth of 歇后语 *Xiēhòuyǔ*

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<sup>16</sup> There is some controversy about the name of the family. I will use both Sino-Tibetan and Tibeto-Burman interchangeably and mean nothing different by them.

which are longer, proverbial expressions with initial and final parts such as 老虎的屁股, 摸不得 *Lǎohǔ de pìgu, mō bùdé* ‘the butt of a tiger, do not touch’. Speakers of Chinese use the first part to imply the second part similar to the way an English speaker might say, ‘An apple a day...’. Traditional, building-block models of grammar do injustice to the Chinese language whereas RCG allows Chinese to stand on its own terms. It is neither necessary nor productive, to define ‘parts of speech’ for Chinese (see LaPolla 2013, 2014 for discussion). LaPolla (2013: 51) states the following with respect to RCG and Chinese.

The most useful approach to Chinese grammar then is to take the constructions as basic, and not try to impose global categories on the language for which there is no empirical evidence, as taking the constructions as basic means there is no need for abstract global categories in individual languages or cross-linguistically. In the practice of the distributional method, one chooses constructions to define form classes, and then uses the form classes so defined to characterize the constructions. For example, a word is defined as a noun because it appears as the head of a certain type of construction, and then that construction is defined as a noun phrase because the head of the construction has been defined as a noun (on the basis of it appearing in that construction).

LaPolla (2008) give an account of transitivity in Qiang and Rawang and points out that each language must be analyzed on its own terms, and so the criteria used for identifying

‘transitivity’, if it is to be identified at all, might be different for different languages.

Transitivity is a notion that must be analyzed on a construction-by-construction basis. This is why analyses of transitivity that use universalist categories such as S, A, P, (Dixon 2010) fail to describe the complexity of the situation for constructions across languages, and differences between constructions within the same language. See Mithun & Chafe (1999) for a thorough critique of the universal applicability of categories such as S, A, and P. LaPolla (2011: 482) note “Although we may see transitivity as a phenomenon manifested in many languages, it is not universal, and when manifested, it may be manifested differently between different languages and even between different constructions of a single language.”

RCG in Croft’s (2001: 15) terms “allows each language to be itself: it respects the grammatical diversity of languages, and the uniqueness of each language's grammar.”

#### *A personal note*

Having been a student of Yonghe Qiang for about 15 years and having lived amongst Qiang-speaking people for a significant portion of my adult life, I have come to an understanding that the Qiang language reflects a Qiang way of understanding the world. I have a deep respect for the Yonghe Qiang language and its speakers. Thus, the decision to use RCG is based on my desire to respect the language in all its difference.

## **1.9 Overview of the chapters**

The dissertation will have five analysis chapters. The first, (Chapter 2) discusses the segmental phonological system of Yonghe Qiang. The second analysis chapter (Chapter 3) examines the suprasegmental phonology. The third (Chapter 4), fourth (Chapter 5), and fifth

(Chapter 6) chapters will analyze the Yonghe verbal stems, prefixes, and suffixes, respectively. Chapter 7 will synthesize findings from the five analysis chapters to make research-based suggestions for future studies; this chapter will also be the conclusion for the dissertation.

## *Chapter 2: Segmental phonology*

### **2.1 Introduction**

This chapter analyzes the segmental phonology of Yonghe Qiang. The goal of this chapter is to prepare the reader for the discussion in later chapters of morpho-phonological alternations in the Yonghe Verb-complex.<sup>17</sup>

Like other varieties of Qiang, Yonghe has a relatively large inventory of consonants and vowels. Some of the sound contrasts, such as a contrast between the voiced and voiceless glottal fricatives, are uncommon cross-linguistically. Each subsection will begin with a demonstration of contrastiveness of the segment in question, followed by illustrations of the segment through waveforms, spectrograms, and quantitative phonetic measurements.

Quantitative measurements are given along with the relevant code and links to the data to ensure replicability.

The chapter is organized as follows. Consonants are introduced in 2.2. Each consonant phoneme is introduced according to its manner and place of articulation. (2.2.1) Obstruents, (2.2.2) affricates, (2.2.3) fricatives, (2.2.4) nasals, (2.2.5) laterals, and (2.2.6) glides. Vowels are discussed in 2.3. Syllable structure is discussed in 2.4. A brief chapter summary is given in 2.5.

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<sup>17</sup> This chapter uses data from other varieties such as Mianchi Qiang (Evans 2001a), Longxi Qiang (Evans 2001a), Mawo Qiang (Liu 1998) as well as Tangut, Written Tibetan, and SW Mandarin Chinese. Tangut characters are given along with the corresponding representation in Gong Huang-chenng's system (2003) with slight modifications by Xun Gong (2020). Written Tibetan (hereafter WT) forms are given in both the Sambhota script as well as the Wylie (1959) system of transliteration. Chinese Pinyin forms reflect Mandarin. Middle Chinese reconstructions are from Baxter (1992). Old Chinese reconstructions are from Baxter & Sagart (2014). This chapter opportunistically uses both words from every day Qiang as well as forms only found in ritual language. Ritual language forms are marked as such.

Morpho-phonological alternations will be presented in later chapters as the morphology is introduced. Tone will be discussed in Chapter 3.

## 2.2 Consonant onsets

This present study uses 36 symbols to represent the consonantal phonemes distilled from sounds in the corpus, with the caveats noted above. These symbols are given in Table 4.

	<i>Bilabial</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>(Alveolo-)palatal</i>	<i>Velar</i>	<i>Glottal</i>
<i>Obstruents</i>	p, p <sup>h</sup> , b	t, t <sup>h</sup> , d			k, k <sup>h</sup> , g	
<i>Affricates</i>		ts, ts <sup>h</sup> , dz	tʂ, tʂ <sup>h</sup> , dz <sub>ɿ</sub>	tɕ, tɕ <sup>h</sup> , dz		
<i>Fricatives</i>	ɸ, β	s, z	ʂ, ʐ	ɕ, ʑ	x, ɣ	h, ɦ
<i>Nasals</i>	m	n				
<i>Laterals</i>		l, ɭ				
<i>Approximants</i>	w			j		

Table 4. Consonant phonemes of Yonghe Qiang

### 2.2.1 Obstruents

Obstruents present a tripartite distinction between voiceless unaspirated, aspirated, and voiced. This distinction is found in all described varieties of Qiang (see Evans 2001a).

For both the voiced and the aspirated consonants, the negative and positive voice-onset-time is longer in word-initial position and in isolation as opposed to in a composite form or in a carrier phrase. This section will cover the obstruents beginning with the bilabials and ending with the glottal stop.

### 2.2.1.1 Bilabials

Yonghe has a three-way contrast between [p], [p<sup>h</sup>], and [b]. Minimal sets are given in Table 5.

<i>Form</i>	<i>Gloss</i>
pá	‘to bloom’
p <sup>h</sup> á	‘to sun clothing’
bá	‘to be old’
pú	‘to buy’
p <sup>h</sup> ú	‘tree’
bú	‘board’
pǎ	‘pig’
p <sup>h</sup> ǎ	‘noun classifier; a while’
bǎ	‘to carry on the back’
pǒ	‘snow’
p <sup>h</sup> ǒ	‘cards’
-bǒ	‘POL’

Table 5. Minimal sets for bilabial obstruents

### *Illustrations*

#### 2.2.1.1.1 [p]

The voiceless bilabial obstruent [p] has a slight positive VOT. Figures 5a-5b illustrate this sound using the form *pú* ‘to buy’.

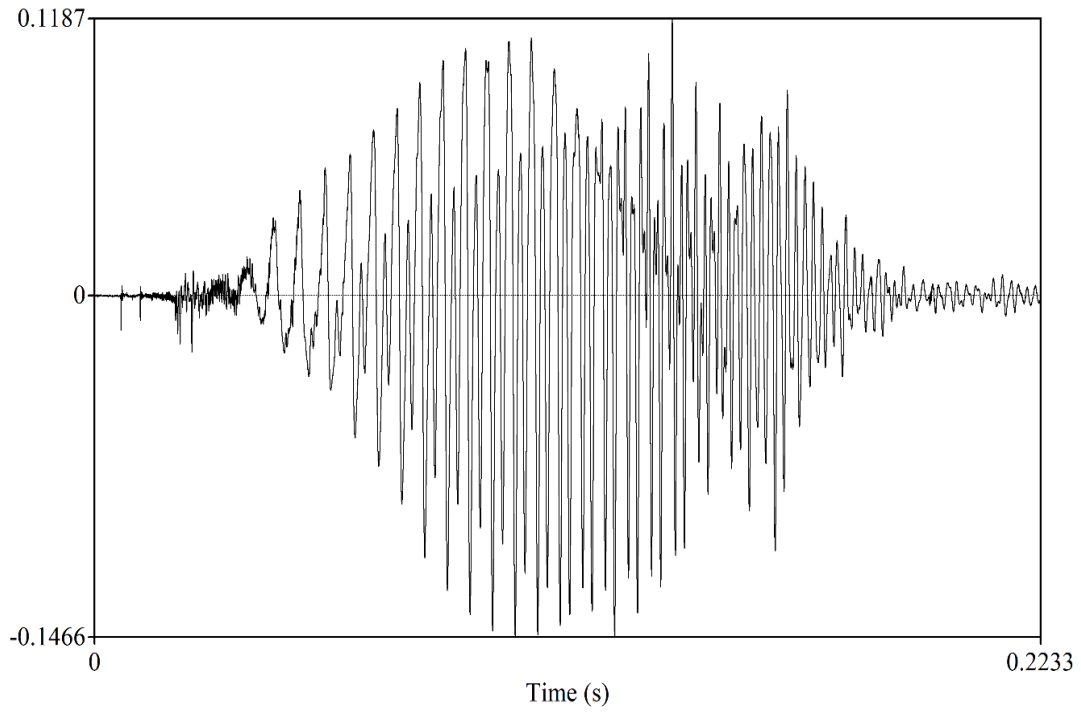


Figure 5a. A waveform of the word *pú* ‘to buy’

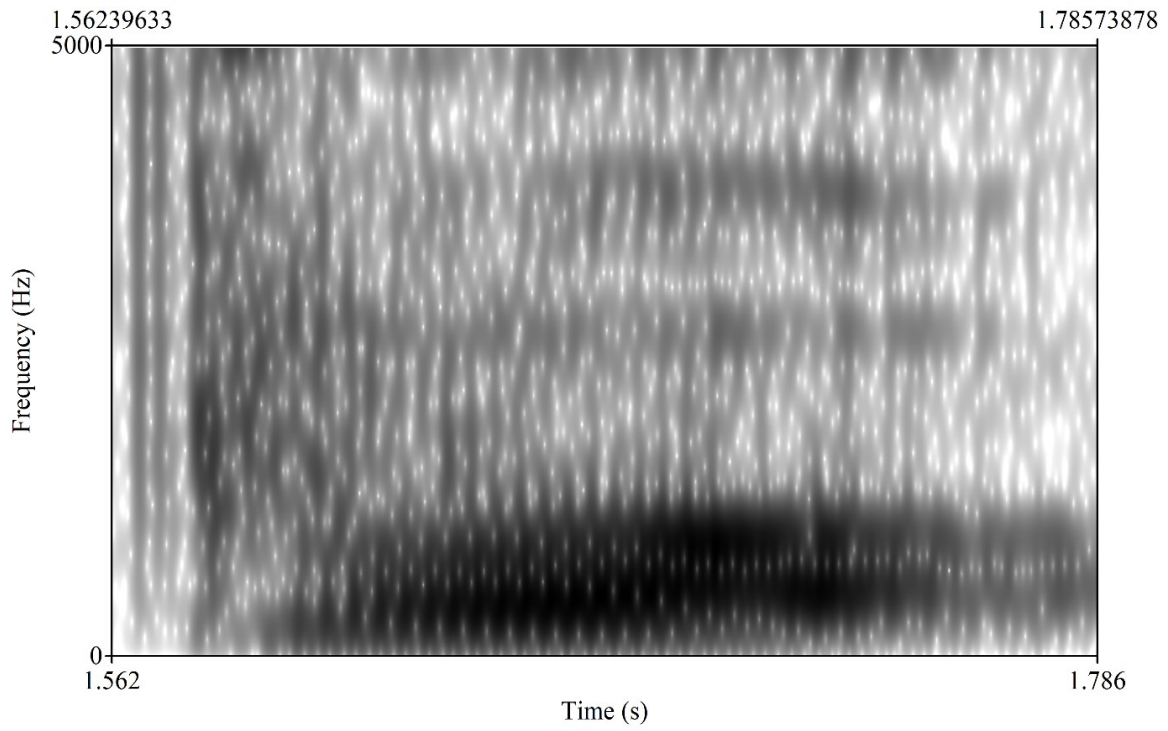
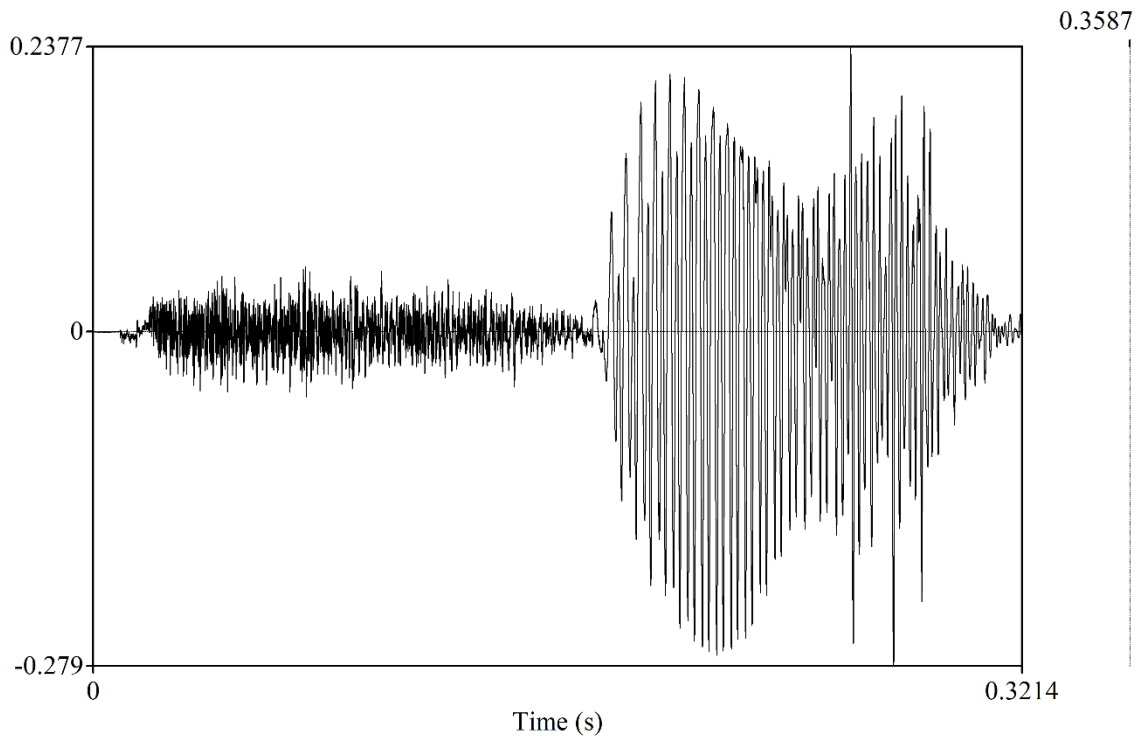


Figure 5b. A spectrogram of the word *pú* ‘to buy’

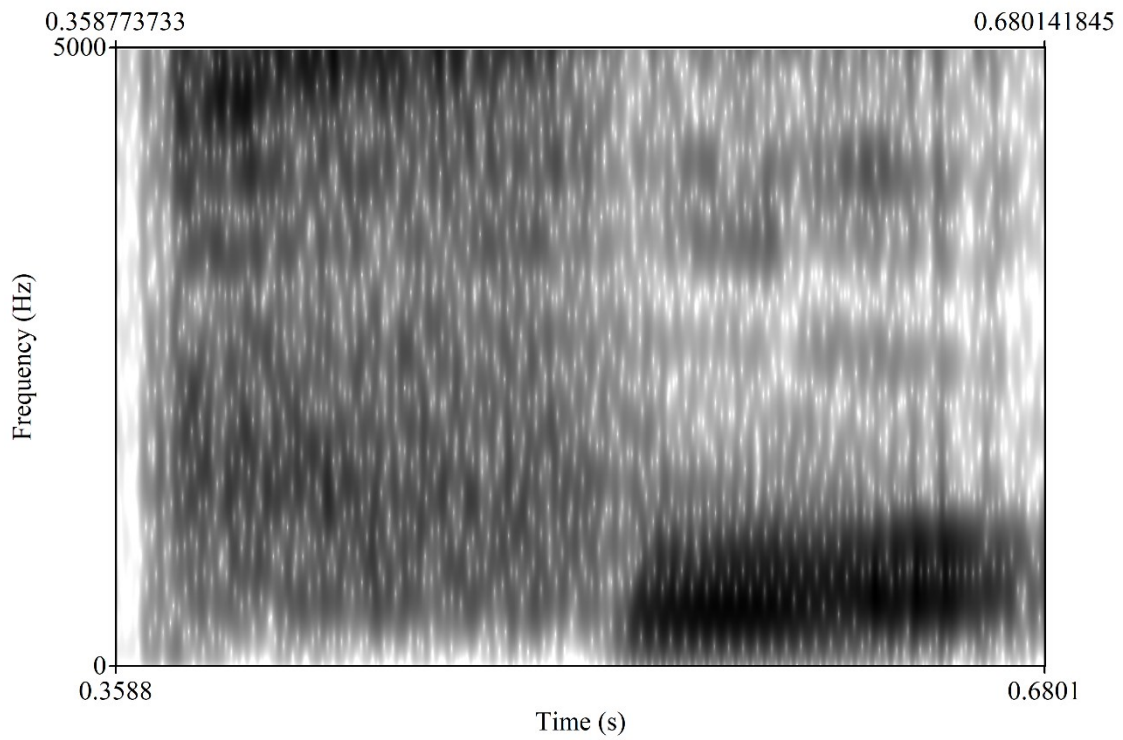


### 2.2.1.1.2 [p<sup>h</sup>]

The aspirated obstruents have a fricated release and a significant positive VOT. Figures 6a-6b illustrate this sound using the form *p<sup>h</sup>ú* ‘tree’.



*Figure 6a.* A waveform of the word *p<sup>h</sup>ú* ‘tree’



*Figure 6b. A spectrogram of the word  $p^hú$  'tree'*

### 2.2.1.1.3 [b]

The voiced bilabial stop has a significant negative VOT, typically ten centi-seconds. Figures 7a-7b illustrate this sound using the word *bú* 'board'.

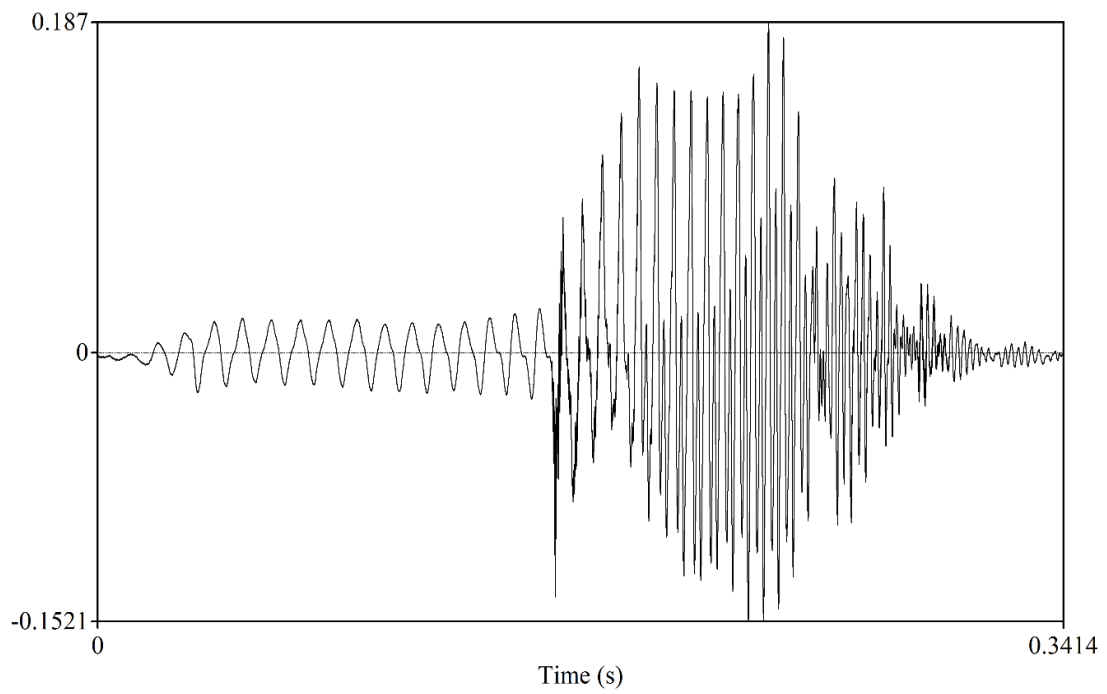


Figure 7a. A waveform of the word *bú* 'board'

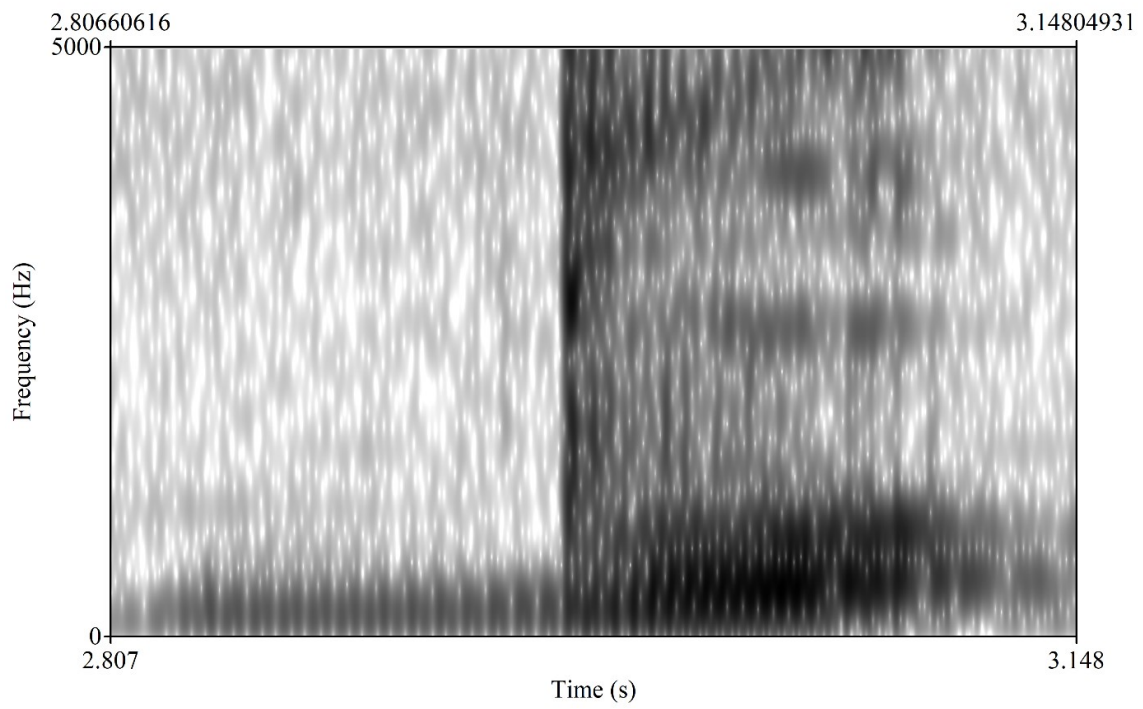


Figure 7b. A spectrogram of the word *bú* 'board'

### *Loanword phonology*

Chinese loans with the initials [p] and [p<sup>h</sup>] (*pinyin* <b> and <p>) are borrowed as such. Thus, the Chinese words 比 *bǐ* ‘to show with hands’ and 菩薩 *púsà* ‘bodhisattva’ are borrowed into Yonghe Qiang as [pí-t<sup>h</sup>à] and [p<sup>h</sup>ùsá], respectively.<sup>18</sup> Local varieties of Chinese lack [b].

#### *2.2.1.2 Alveolar obstruents*

##### *Minimally contrastive sets*

Alveolar obstruents present a three-way distinction between /t/, /t<sup>h</sup>/, and /d/. The voiced alveolar obstruent /d/ has very slight pre-nasalization. Minimal sets are given in Table 6.

<i>Form</i>	<i>Gloss</i>
tú	‘to shoulder’
t <sup>h</sup> ú	‘oil’
dú	‘to poison’
té	‘seven’
t <sup>h</sup> é	‘drink, suck’
dé	‘to celebrate newyears’
tá	‘to wear a hat’
t <sup>h</sup> á	‘to be distant’
dá	‘cloud’

*Table 6.* Minimal sets showing the three-way VOT contrast for alveolar obstruents

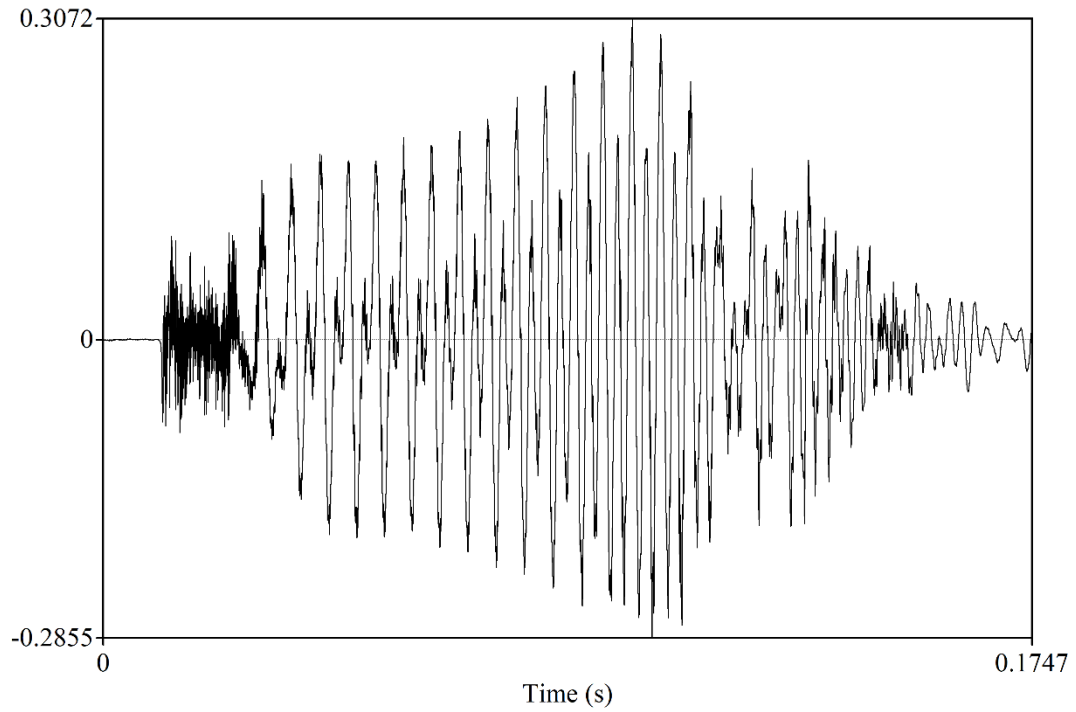
##### *Illustrations*

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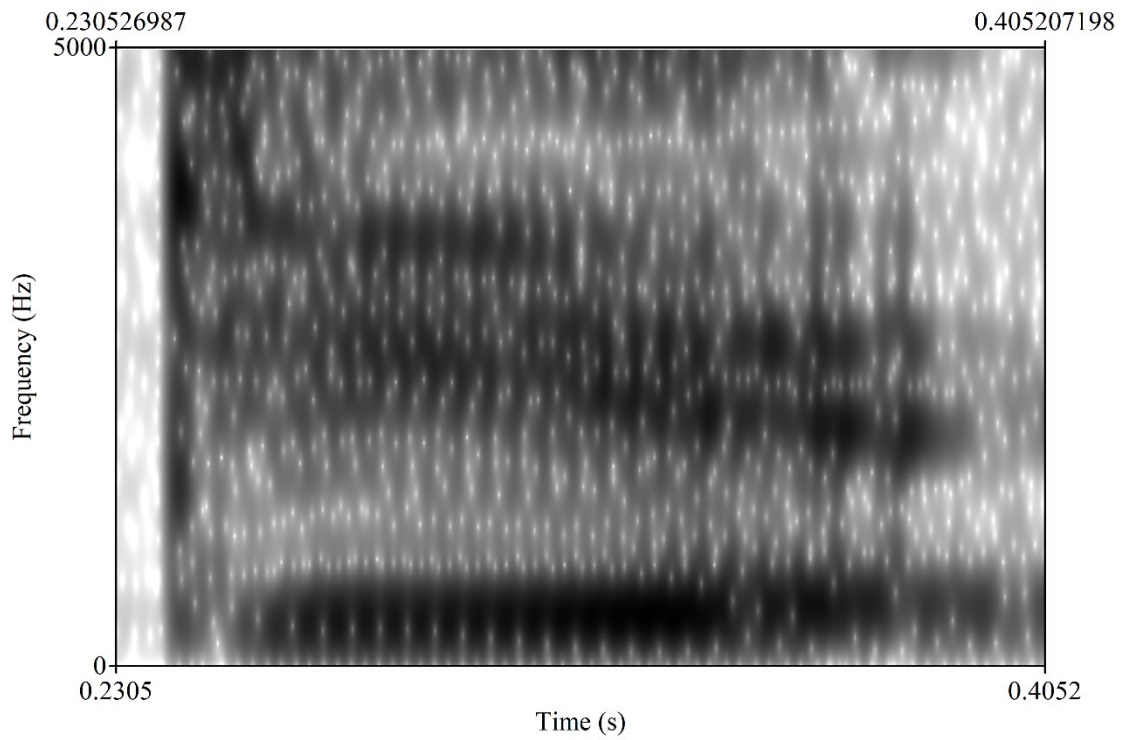
<sup>18</sup> The Chinese is an abbreviation of 菩提薩埵 *pútísàduǒ*, ultimately from Sanskrit बोधिसत्त्व ‘bodhisattva’.

### 2.2.1.2.1 [t]

The voiceless alveolar obstruent has a small, positive VOT. Figures 8a-8b illustrate this sound using the form *tí* ‘bear’.



*Figure 8a.* A spectrogram of the word *tí* ‘bear’



*Figure 8b.* A spectrogram of the word *tí* ‘bear’

#### 2.2.1.2.2 [t<sup>h</sup>]

The voiceless alveolar obstruent has an affricated release and a positive VOT. Figures 9a-9b illustrate this sound using the form *t<sup>h</sup>imi* ‘heart’.

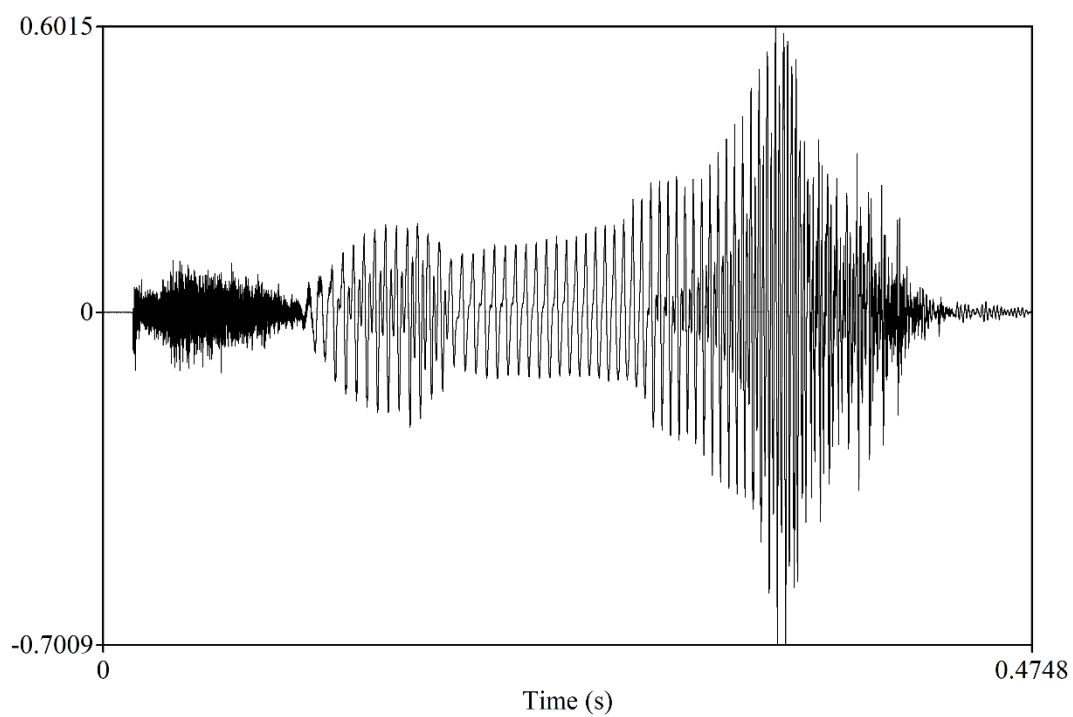


Figure 9a. A waveform of the word *t<sup>h</sup>imi* 'heart'

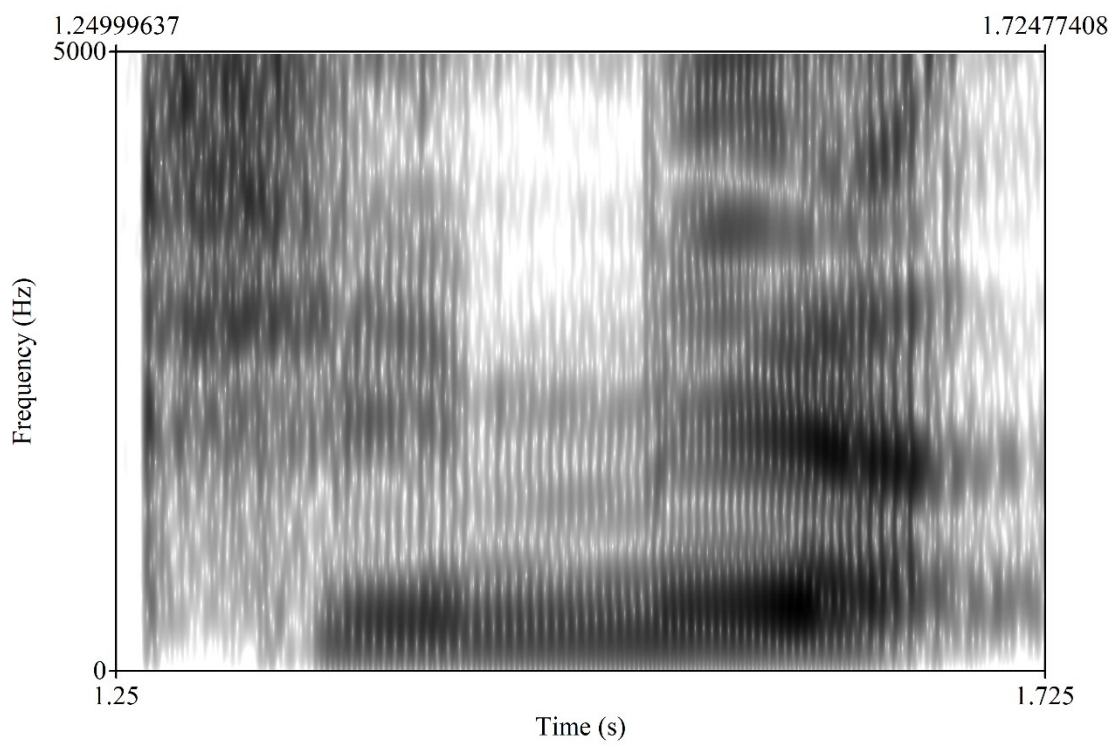
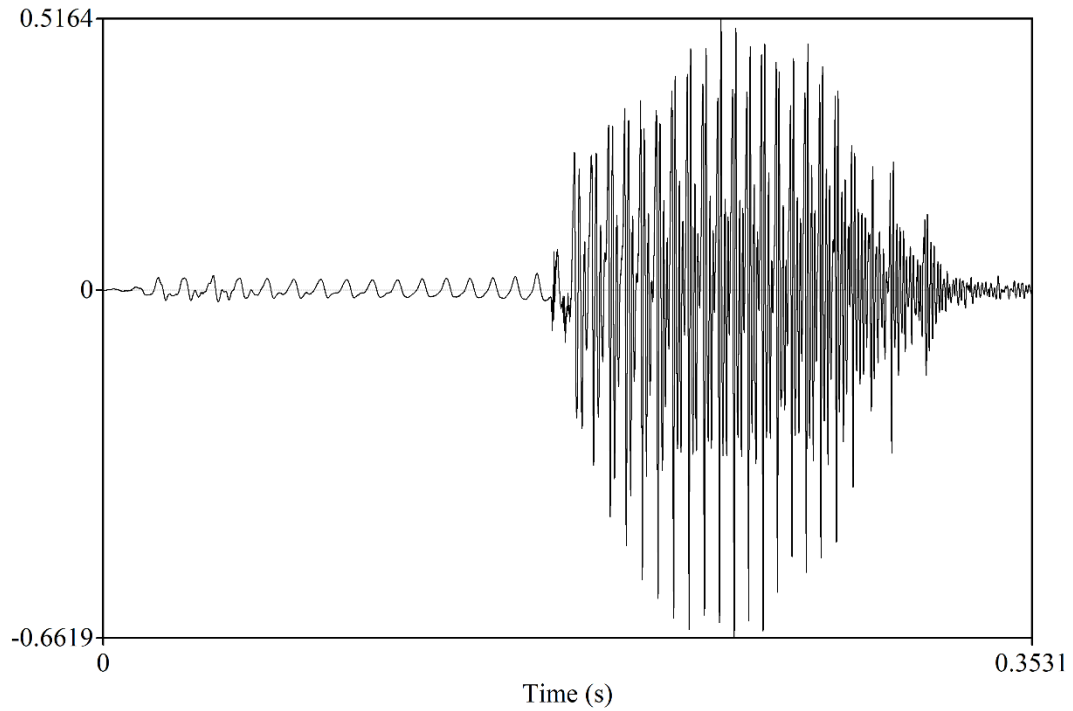


Figure 9b. A spectrogram of the word *t<sup>h</sup>imi* 'heart'

### 2.2.1.2.3 [d]

The voiced alveolar stop has a significant negative VOT. Prenasalization, visible on the left-hand portion of the spectrogram in Figure 10a, is sometimes present for the voiced alveolar stop.



*Figure 10a.* A waveform of the word *dá* ‘cloud’



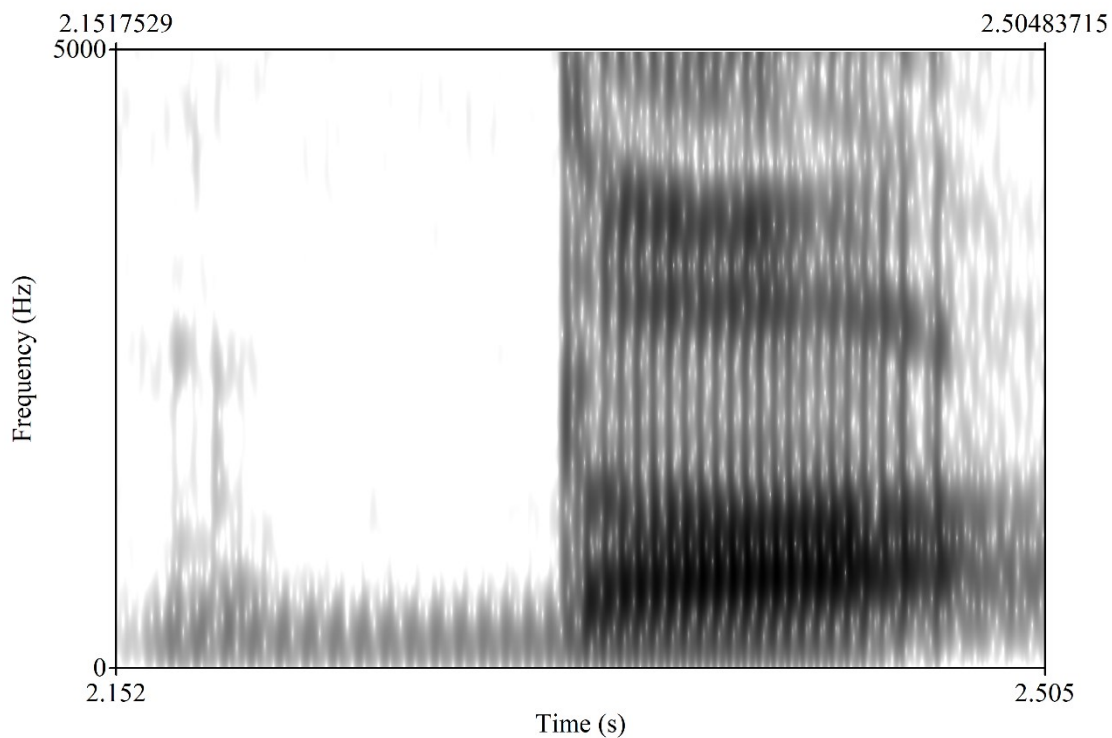


Figure 10b. A spectrogram of the word *dá* ‘cloud’

Loanwords from Chinese with alveolar obstruent initials [t] and [tʰ] (*pinyin* <d> and <t>) are borrowed as such. Thus, [ti<sup>213</sup>mī<sup>21</sup>] ‘toponym’ < 地名 *dì míng* ‘toponym’ and [tʰwéj-tʰà] ‘to push’ < 推 *tūi* ‘push’.<sup>19</sup> Local varieties of Mandarin lack [d]. However, some forms with [d] may be loanwords from Chinese borrowed before the change *\*d* > [t] from Middle Chinese into Mandarin. Thus, the Yonghe form [dú] ‘to poison’, is possibly an older loan from Sinitic 毒 *dú* < MC *\*dowk* < *\*dʰuk* ‘poison’, though this is speculative.<sup>20</sup>

<sup>19</sup> Forms with the [tj ~ tʰ] in Chinese are borrowed as such. Thus, [tjæ<sup>213</sup>.xwa<sup>21</sup>] ‘telephone’ < Chinese 电话 *diànhuà* ‘telephone’ and [tʰjæ<sup>45</sup>.ma<sup>21</sup>] ‘potato orchids’ < Chinese 天麻 *tiānmá* ‘potato orchids (*gastrodia elata*)’.

<sup>20</sup> Loanwords from Tibetan are scant. It appears that forms with <t> in Written Tibetan have been borrowed as such. For example, Yonghe [tʰ<sup>33</sup>ji<sup>53</sup>] ‘axe’ < མཐོན་ *sta.re* ‘axe’ (see X. Gong 2018 on this form).

### 2.2.1.3 Velar obstruents

#### *Minimally contrastive sets*

Velar obstruents present a three-way VOT contrast between [k], [k<sup>h</sup>], and [g]. The voiced obstruent has little or no pre-nasalization. The voiced velar stop /g/ is very rare and occurs in a few words. Minimal sets are given in Table 4.

<i>Form</i>	<i>Gloss</i>
kǔ	‘to be afraid’
k <sup>h</sup> ú	‘to hate’
ká	‘I’
k <sup>h</sup> á	‘to be bitter’
kǚ	‘vegetables’
k <sup>h</sup> ý	‘dog’
gǚsì	‘clothing’
ʔækǎ	‘next year’
ʔæk <sup>h</sup> æk <sup>h</sup> ǎ	‘slowly’
gǎ	‘to love’ <sup>21</sup>

Table 7. Minimal sets for velar obstruents

#### *Illustrations*

##### 2.2.1.3.1 [k]

Figures 11a-11b illustrate this sound using the form kǚ ‘vegetable’.

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<sup>21</sup> This may be related to Tibetan དགའ *dga* ‘to love’.

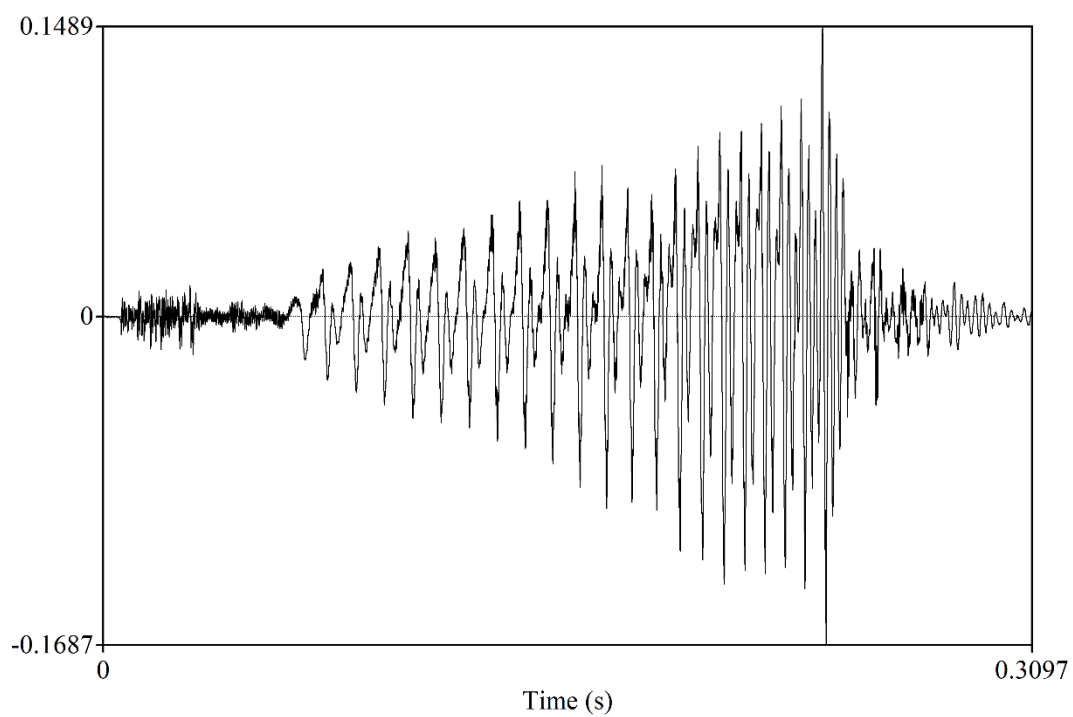


Figure 11a. A waveform of the word *ky* ‘vegetable’

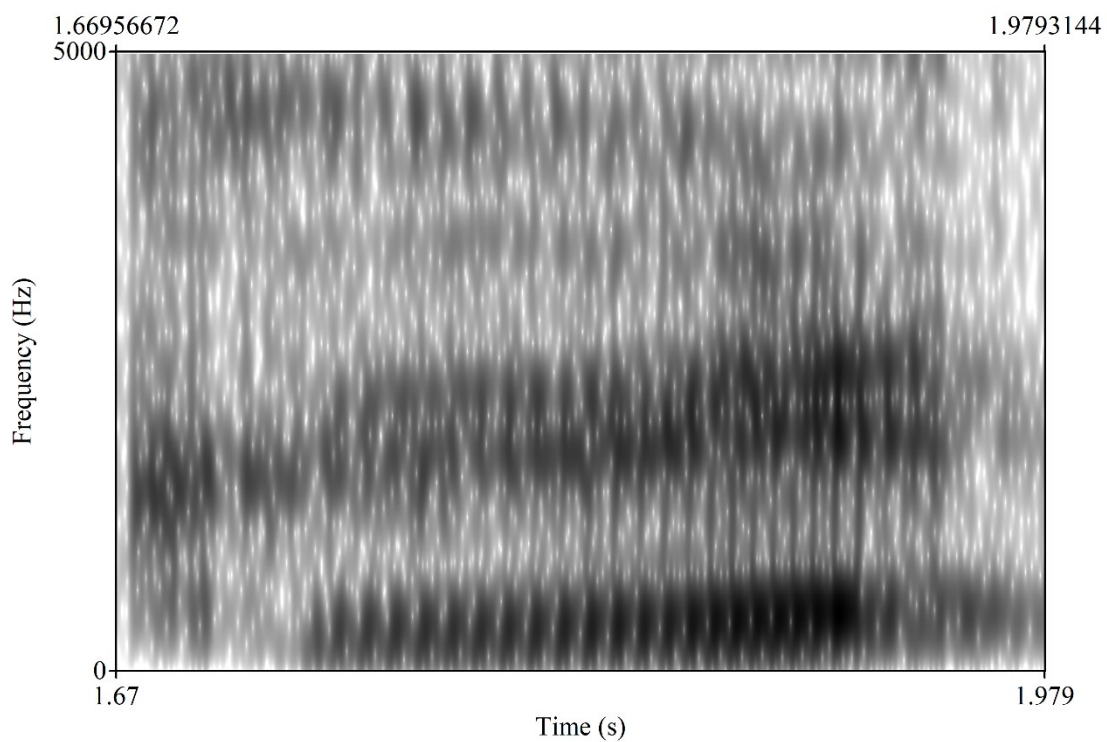
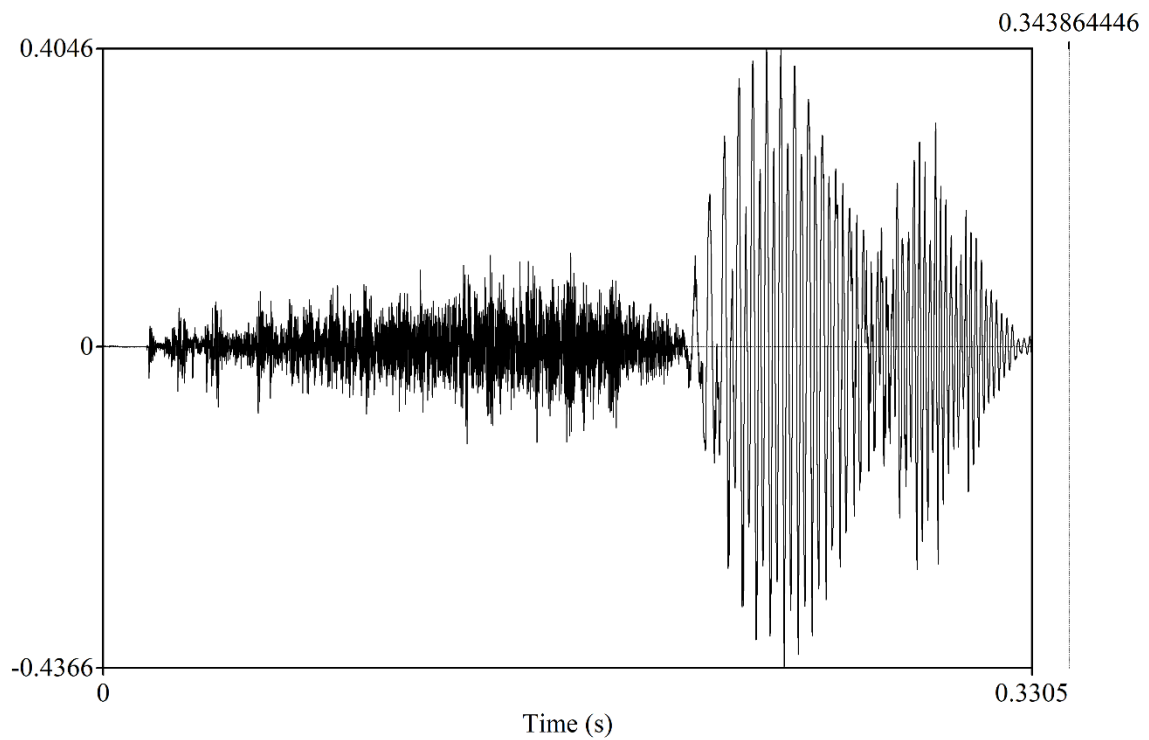


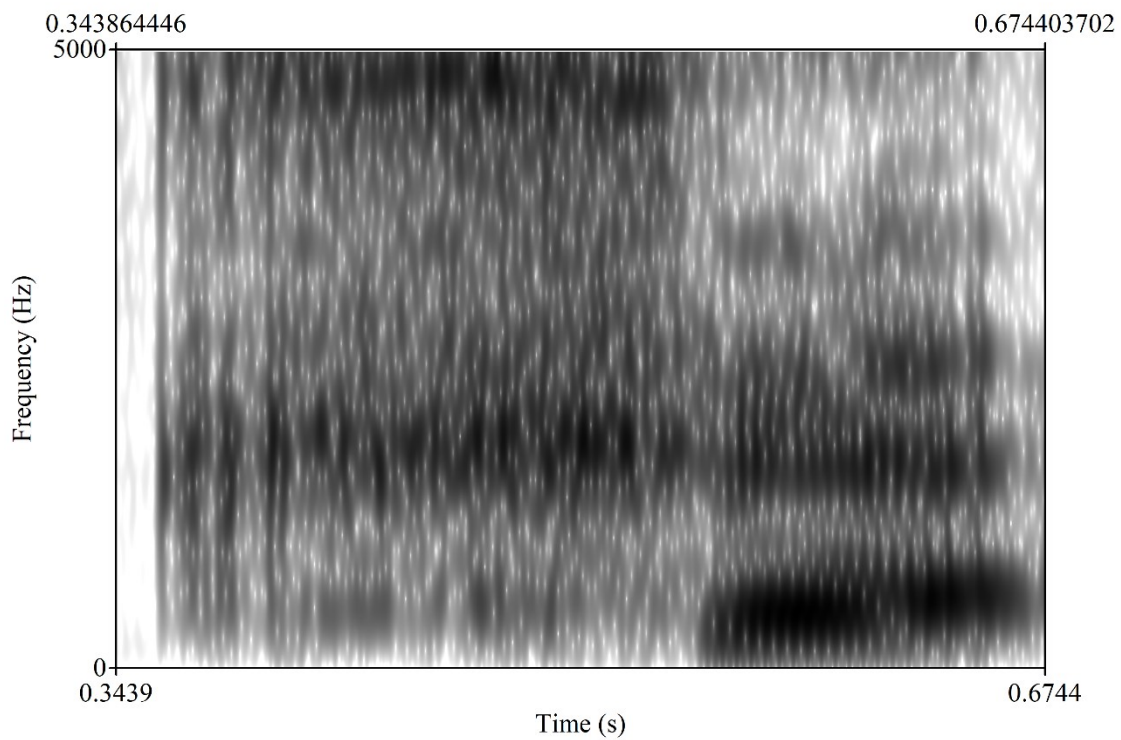
Figure 11b. A spectrogram of the word *ky* ‘vegetable’

### 2.2.1.3.2 [k<sup>h</sup>]

The voiceless aspirated velar obstruent has an affricated release and a significant positive VOT. Figures 12a-12b illustrate this sound using the form *k<sup>h</sup>y* ‘dog’.



*Figure 12a.* A waveform of the word *k<sup>h</sup>y* ‘dog’



*Figure 12b.* A spectrogram of the word *kʰý* ‘dog’

### 2.2.1.3.3 [g]

The voiced velar stop is rare and only occurs in a few forms. It has a negative VOT, but the negative VOT is not as strong as that of the bilabial and alveolar voiced obstruents. Figures 13a-13b illustrate this sound using the form *gýsì* ‘clothing’.

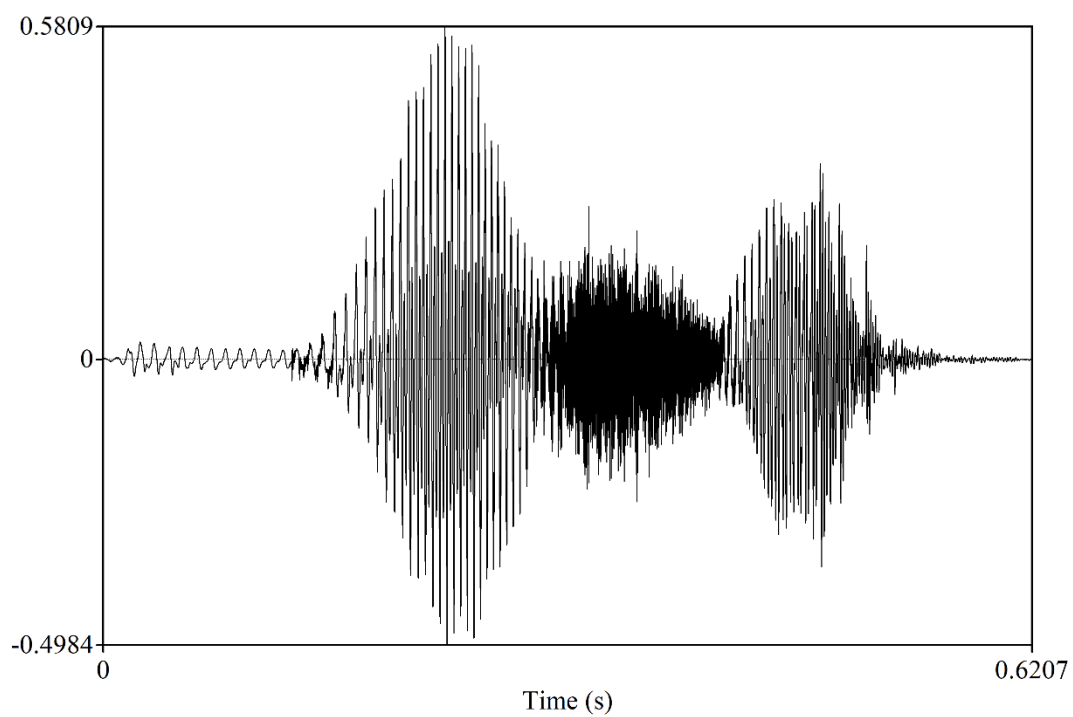


Figure 13a. A waveform of the word *gysi* ‘clothing’

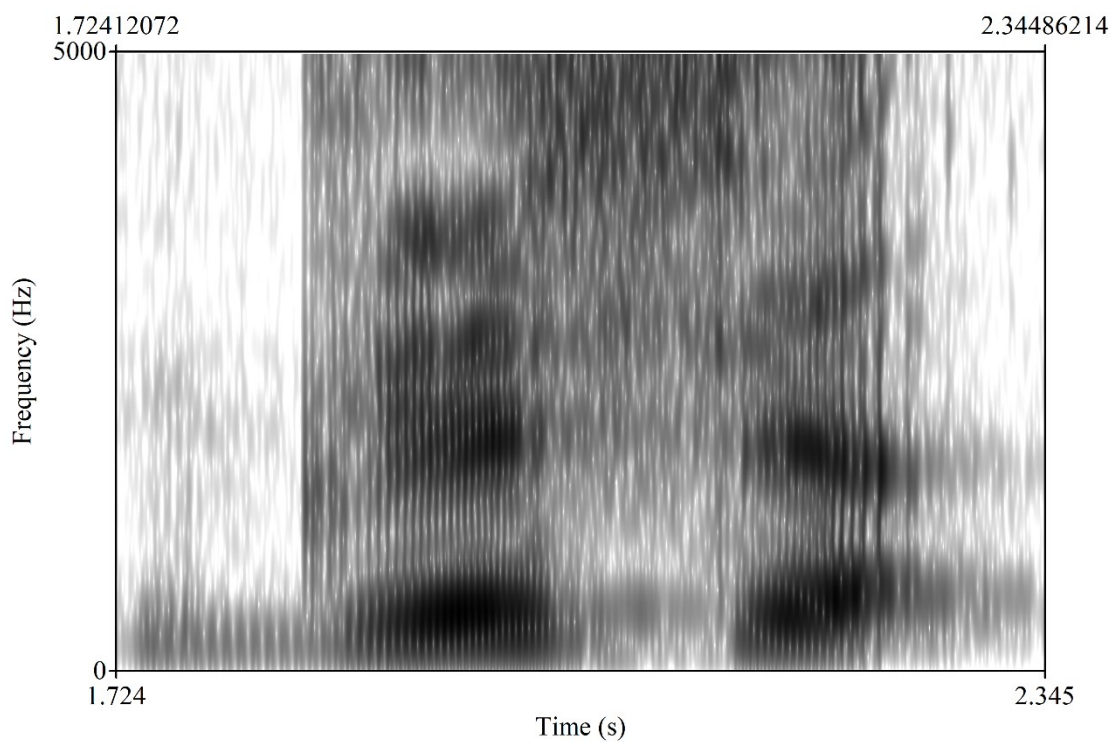


Figure 13b. A spectrogram of the word *gysi* ‘clothing’

Uvular sounds, while audible in the speech of some Yonghe speakers, do not contrast with velar sounds. In the summer of 2016, 陈维康 Chen Weikang, a trained linguist and native speaker of the northwestern 曲古 Qugu variety, a variety that contrasts velars and uvulars, spent one week's time investigating the speech of 杨芝全 Yang Zhiquan, the primary consultant for this study. Chen Weikang concluded that Yang Zhiquan did not consistently distinguish uvular and velar places of articulation.

The uvular sounds in northwestern varieties of Qiang are striking. The uvular stops are released with an audible 'pop'. The voiceless uvular fricatives involve strong rasping of the uvula. Intervocalic voiced uvular fricatives sometimes involve the uvula being trilled. In contrast, it appears that while Yang Zhiquan and other Yonghe speakers, produces velar sounds relatively far back, uvulars do not contrast with velars and for some speakers seem to be in free variation, especially in intervocalic position. For example, there are subtle differences with between the speech of Mr. Yang Zhiquan's speech and that of his wife Yang Guomei. While they both pronounce the word for 'needle' as [xǎ] in both isolation and phrase-medially whereas his wife pronounces the word as [xǎ] in isolation and as [χǎ] phrase medially. The place of uvular sounds in the historical phonology of the Yonghe variety is a complex issue which cannot be fully unpacked here.<sup>22</sup>

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<sup>22</sup> Uvulars may be an areal feature of the NW Sichuan *Sprachbunde* (Sun H. 2001; Hill 2019a). There is some disagreement as to the status of uvular consonants in the ancestral language. It may be that Yonghe is conservative in that it never developed uvulars. It may be that Yonghe is innovative in collapsing velars and uvulars. It may be that the uvulars in Qiang are innovations, and the loss of distinction in Yonghe is not a retention but a secondary innovation. The spiral-shaped nature of diachronic changes makes it difficult to ascertain the answers to these questions.

Lastly, loanwords from Chinese with the initials [k] and [k<sup>h</sup>] (*pinyin* <g> and <k>) are borrowed as such. Thus, [kwǎn<sup>51</sup>t<sup>h</sup>a<sup>33</sup>] <管 *guǎn* ‘to manage’, and [k<sup>h</sup>aj<sup>45</sup>xwej<sup>213</sup>] <开会 *kāihui* ‘to hold a meeting’. Local varieties of Chinese lack [g].

#### 2.2.1.4 Quantitative measurements for obstruents

Figure 14 gives measurements for different words said in isolation by Mr. Yang Zhiqian. The Y axis shows the different forms. The X axis shows voice-onset-times in ten centiseconds intervals. The figure illustrates the differences in voice onset time for unaspirated (yellow), voiced (red), and aspirated obstruents (blue).<sup>23</sup>

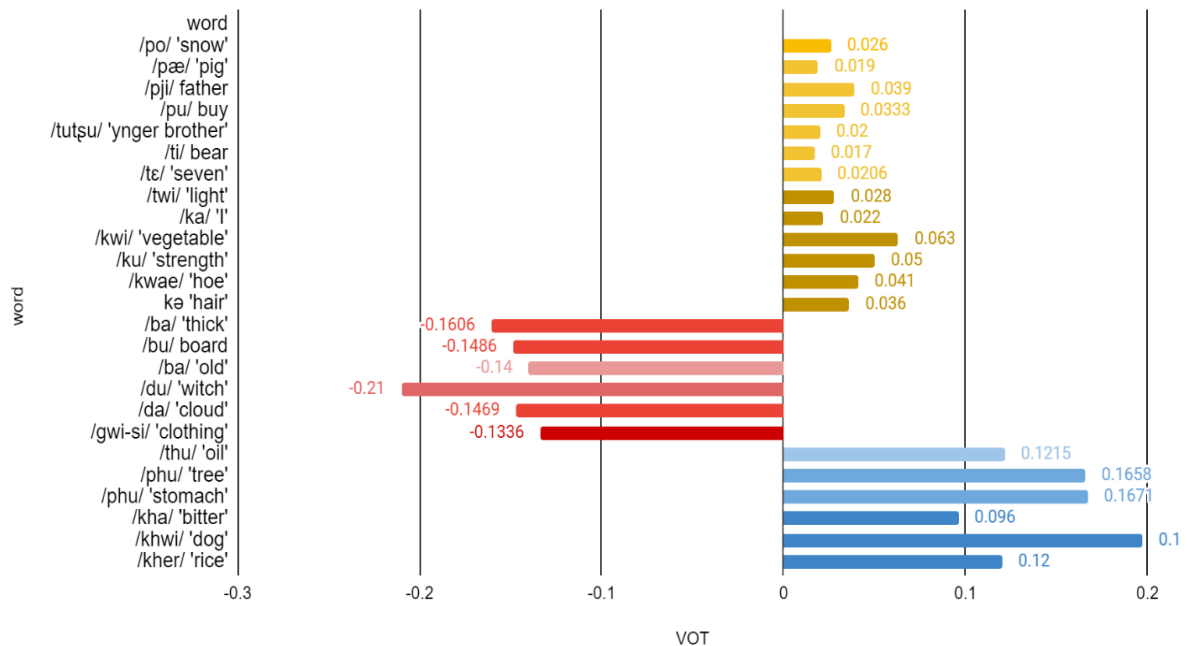


Figure 14. Voice-onset-times for unaspirated, aspirated, and voiced obstruents<sup>24</sup>

<sup>23</sup> Code for the measurements using Rpraat will be placed along the relevant audio files into folders on Zenodo and be referenced using digital object identifiers. The bars represent measurements taken for one token of a word said in isolation by 杨芝全 Yang Zhiqian.

<sup>24</sup> These forms were recorded in isolation by Mr. Yang Zhiqian.



Figure 19 also illustrates that, with respect to VOT, differences between places of articulation are much less important than differences according to manner of articulation.

### 2.2.1.5 Glottal stop

In Yonghe, glottal stop [ʔ] contrasts with glottal fricatives [h] and [ɦ]. However, [ʔ] does not contrast with a pure vocalic onset and only occurs in word-initial position. There are no Verb-stems or Classifiers that begin with glottal stop.<sup>25</sup> The glottal stop occurs most frequently as the ‘inward’ orientational prefix. Thus, it is not omitted here so as to highlight the contrast with other consonantal orientational prefixes. Table 5 gives examples of forms with a glottal stop.

<i>Form</i>	<i>Gloss</i>
ʔé-j	‘one-CLF’
ʔǎ-jǎ	‘one-night’
ʔú	‘you’
ʔè-lé	‘you-PL’
ʔà-há	‘one-same’
ʔè-bèdý	‘ORT:in-think’
ʔà-sǎ	‘ORT:in-understand’
ʔù <sup>1</sup> -mú <sup>1</sup>	‘ORT:in-dream’
ʔè-tǎi	‘ORT:in-catch’
ʔè-lý	‘ORT:in-come’

<sup>25</sup> This is like the situation for Ronghong Qiang, where glottal stop does not contrast with a pure vocalic onset. (LaPolla & Huang 2003: 156).

hè-lý	‘ORT:out-come’
fiè-lý	‘ORT:down-come’

Table 8. Glottal stop in Yonghe Qiang

### 2.2.2 Affricates

There are three sets of affricates. Affricates are analyzed as simplex consonants and not as clusters, as the language does not have clusters, and so this avoids unnecessarily complicating the syllable canon. The affricates they present the same three-way VOT distinction as the plosives. However, the voiced affricates exhibit more prenasalization than do the voiced plosives.

#### 2.2.2.1 Alveolar affricates

##### *Minimally contrastive sets*

The alveolar affricates are /ts/, /ts<sup>h</sup>/, and /dz/. Table 9 gives some minimal sets showing the distinctiveness of the alveolar affricates.

<i>Form</i>	<i>Gloss</i>
tsá	‘here’
ts <sup>h</sup> á	‘to make a mistake’
dzá	‘eat:1’
tsú	‘water’
ts <sup>h</sup> ú	‘to cough’
dzú	‘buckwheat’
tsəmáé	‘look’

ts <sup>h</sup> ǎé	‘CLF:stack’
dzǎémǎé	‘lunch; noon’

Table 9. Minimal sets for alveolar affricates

*Illustrations*

Figures 15a-15b give waveforms and spectrograms illustrating the three-way distinction between /ts/, /ts<sup>h</sup>/ and /dz/.

2.2.2.1.1 [ts]

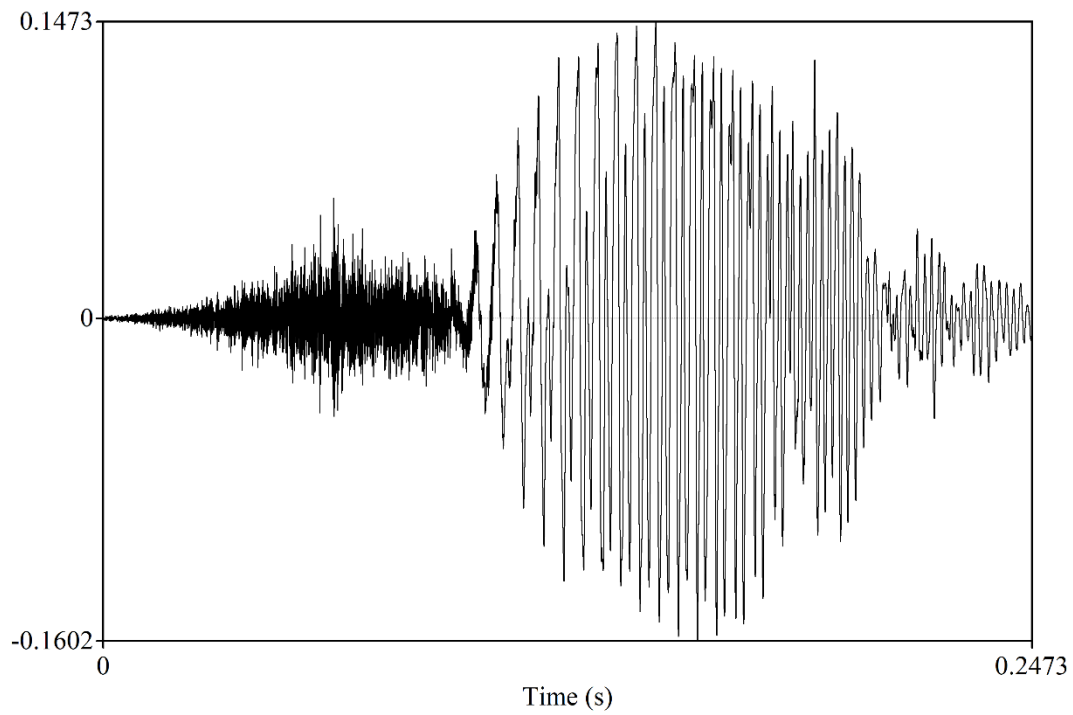


Figure 15a. A waveform of the word *tsú* ‘water’

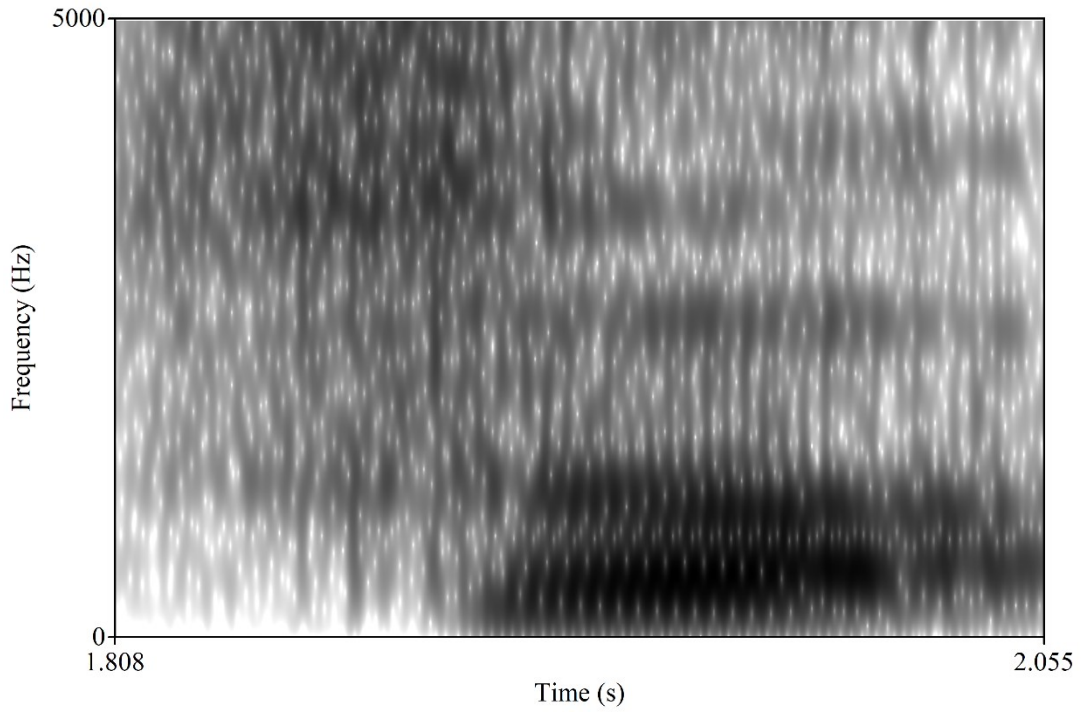


Figure 15b. A spectrogram of the word *tsú* ‘water’

2.2.2.1.2 [ts<sup>h</sup>]

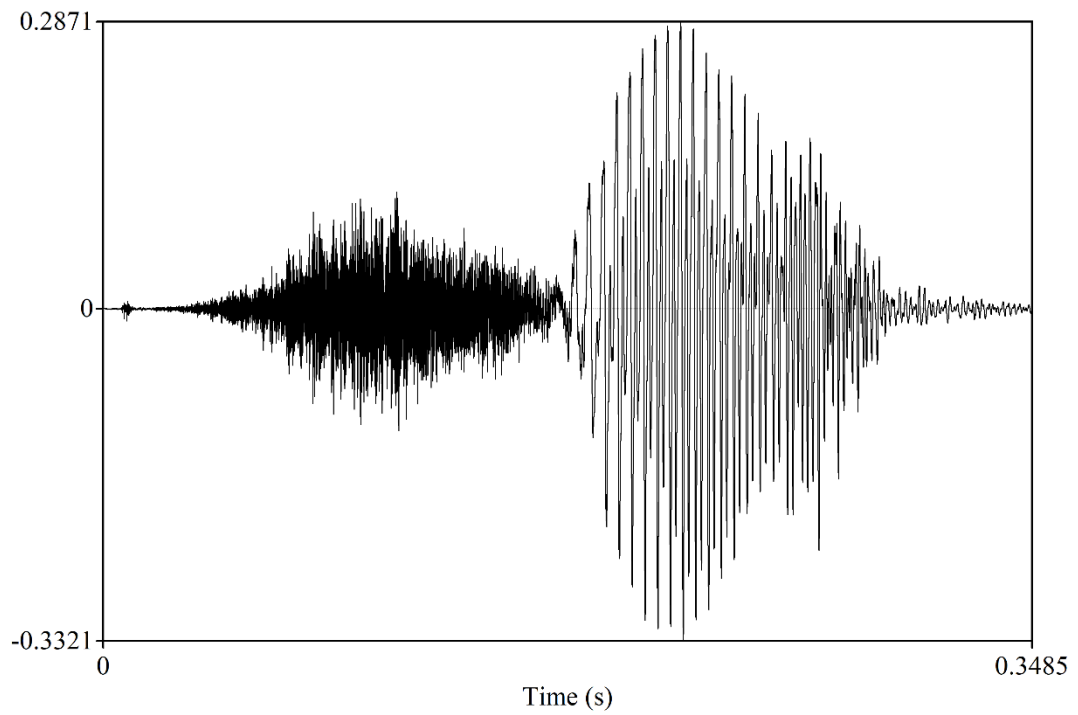


Figure 16a. A waveform of the word *ts<sup>h</sup>ú* ‘to cough’

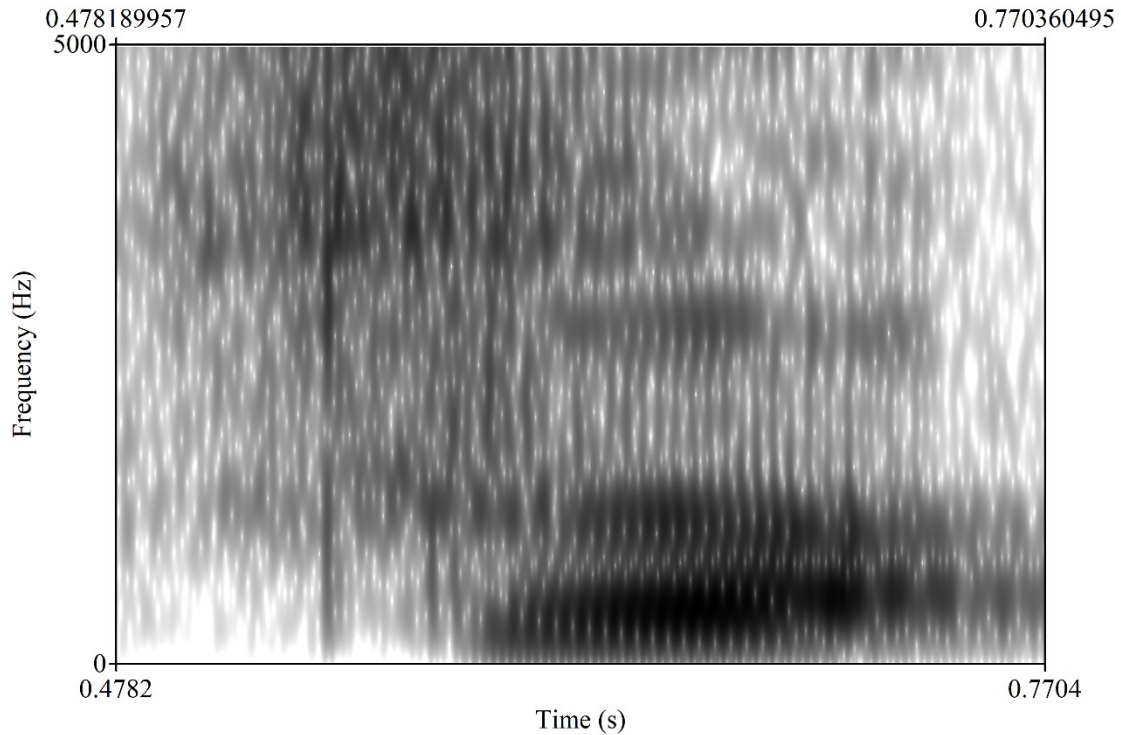


Figure 16b. A spectrogram of the word *ts<sup>h</sup>ú* ‘to cough’

### 2.2.2.1.3 [dz]

The voiced alveolar affricate exhibits more significant pre-nasalization and is sometimes phonetically [ndz] in initial position. This sound tends to weaken to [z] in intervocalic contexts.<sup>26</sup> Figures 17a-17b give an example of the voiced alveolar affricate using the word *dzú* ‘buckwheat’. Note the nasal formants on the left side of the spectrogram.

<sup>26</sup> See LaPolla & Huang (2003: 28) and Evans (2001a-b) for evidence of this process in other varieties.

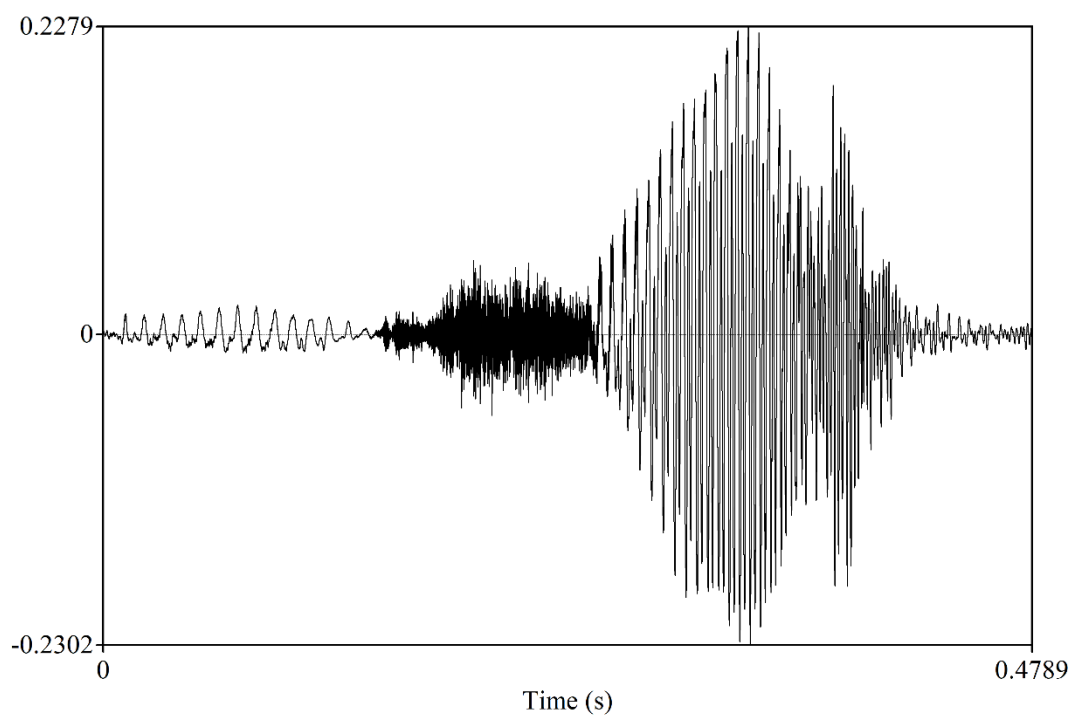


Figure 17a. A waveform of the word *dzi* 'buckwheat'

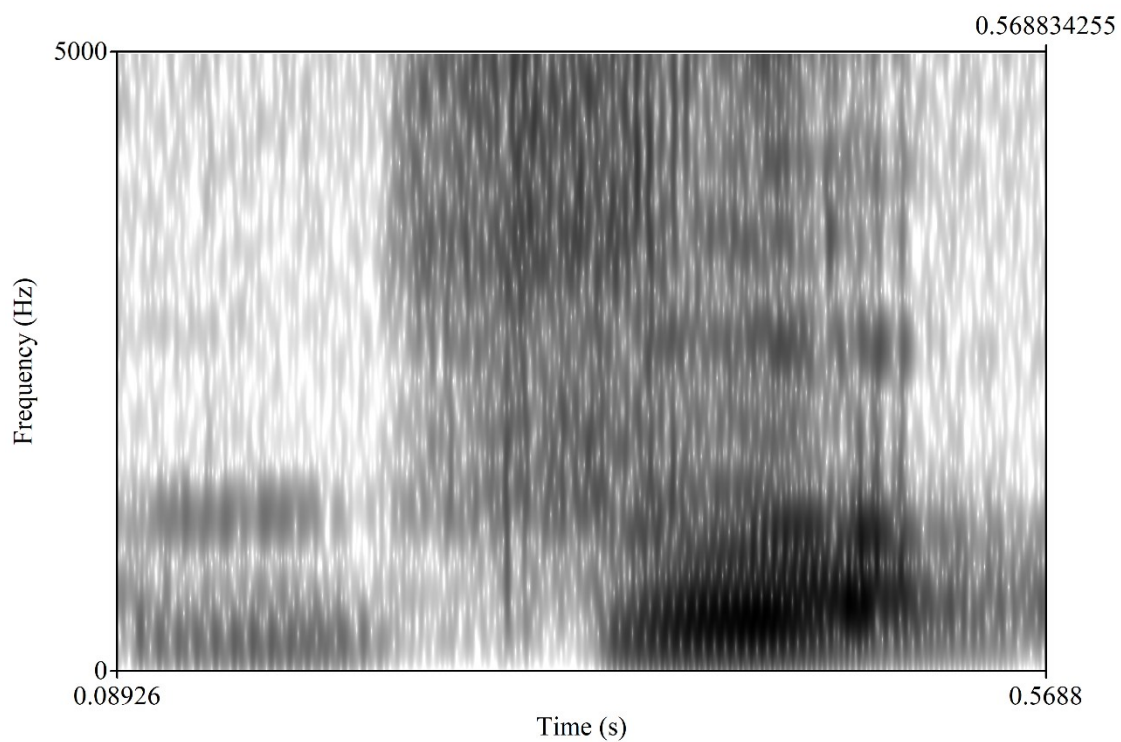


Figure 17b. A spectrogram of the word *dzi* 'buckwheat'

### *Loanword phonology*

Loanwords from Chinese with alveolar obstruent initials [ts] and [ts<sup>h</sup>] (*pinyin* <z> and <c>) are borrowed as such. Thus, [tsɿ<sup>213</sup>ẽĩn<sup>21</sup>tɕ<sup>h</sup>e<sup>45</sup>] < 自行车 *zìxíngchē* ‘bicycle’ and [ts<sup>h</sup>o<sup>213</sup>tɕ<sup>h</sup>e<sup>45</sup>] < 错车 *cuòchē* ‘to give right-of-way’. Local varieties of Chinese lack [dz].

#### *2.2.2.2 Alveolo-palatal affricates*

##### *Minimally contrastive sets*

The alveolar affricates are [tɕ], [tɕ<sup>h</sup>], and [dz]. The voiced alveolar palatal affricate has very slight prenasalization compared to the other voiced affricates. Minimal sets are given in Table 10.

<i>Form</i>	<i>Gloss</i>
tɕəmə́	‘son in law’
tɕéy	‘to have on one’s person’
tɕòlò	‘plowshare’
tɕéky̋	‘old man’
tɕéí	‘house’
tɕěĩ	‘daughter’
hǎ-tɕèi	‘eleven’
tɕ <sup>h</sup> í	‘to want’
tɕ <sup>h</sup> í-p <sup>h</sup> ù	‘willow’
tɕ <sup>h</sup> ý	‘to dare’
tɕ <sup>h</sup> ǎ	‘to want:1’

tɛ <sup>h</sup> yáé	‘to dare:l’
dzí	‘sinew’
dzìdzí-pu	‘Lili Village’
dzý	‘door’
dzǎ	‘to be shameful’

Table 10. Minimal sets for alveolo-palatal affricates

### Illustrations

#### 2.2.2.2.1 [tɛ]

Figures 18a-18b illustrate the voiceless alveolo-palatal affricate with the form [tɛi] ‘daughter’.

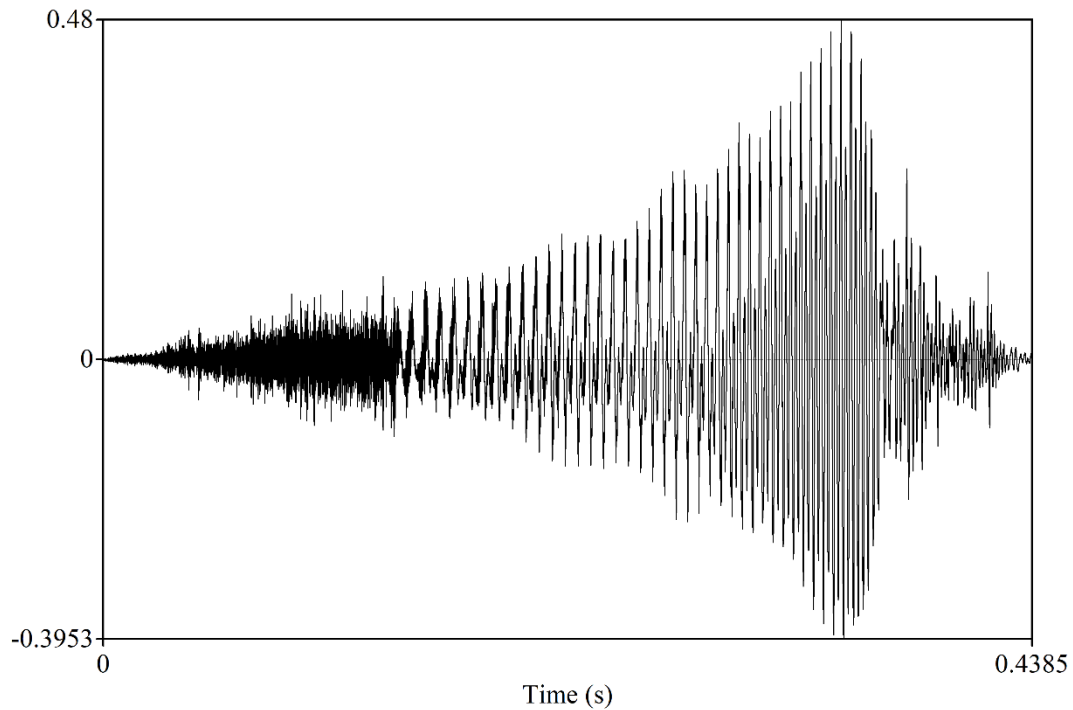
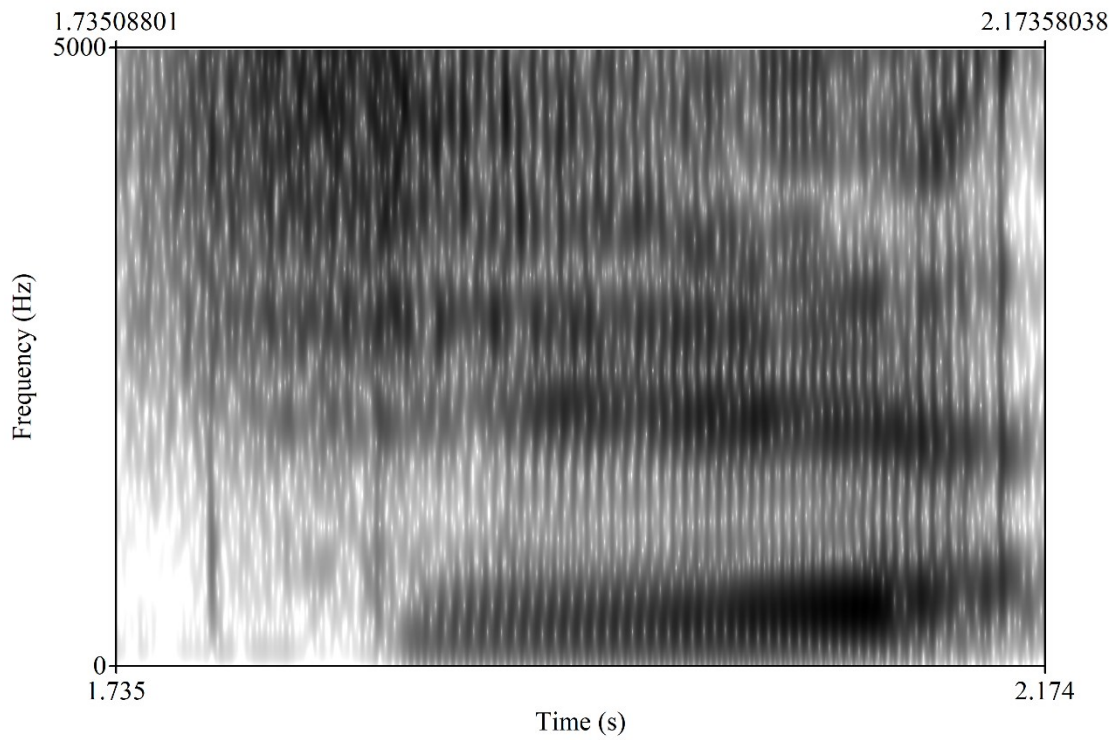


Figure 18a. A waveform of the word tɛi ‘daughter’





*Figure 18b.* A spectrogram of the word *teĩ* ‘daughter’

#### 2.2.2.2.2 [tɕ<sup>h</sup>i]

Figures 19a-19b illustrate the voiceless alveolo-palatal affricate with the form [tɕ<sup>h</sup>i] ‘to want, to be required’.

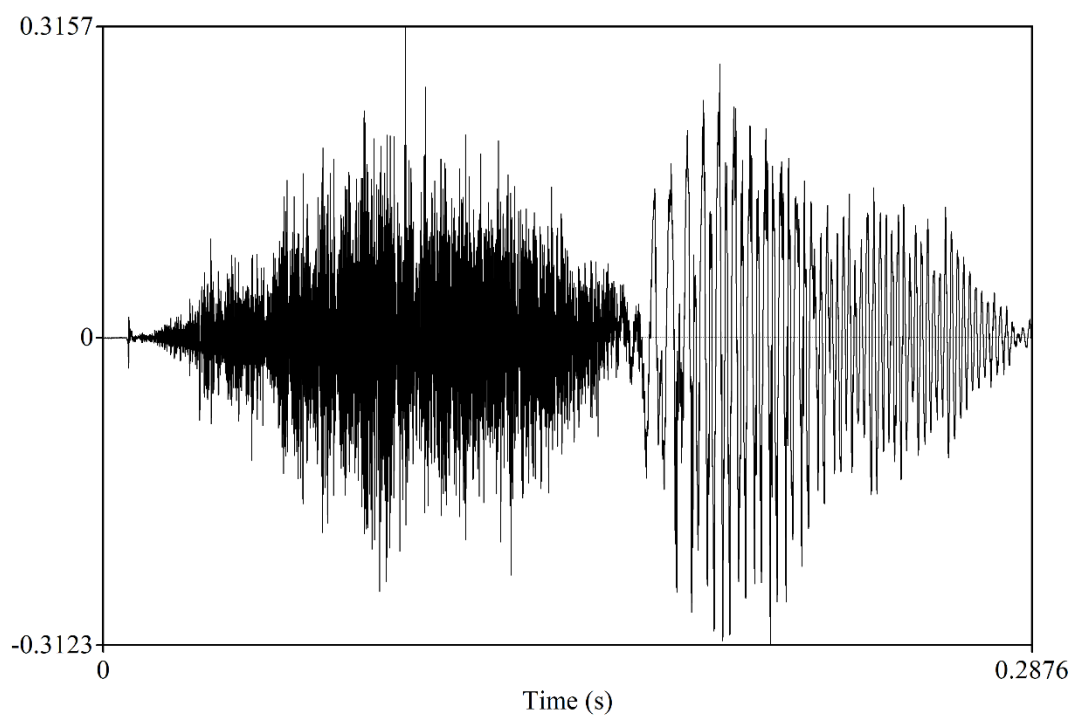


Figure 19a. A waveform of the word  $tc^{hi}$  'to want'

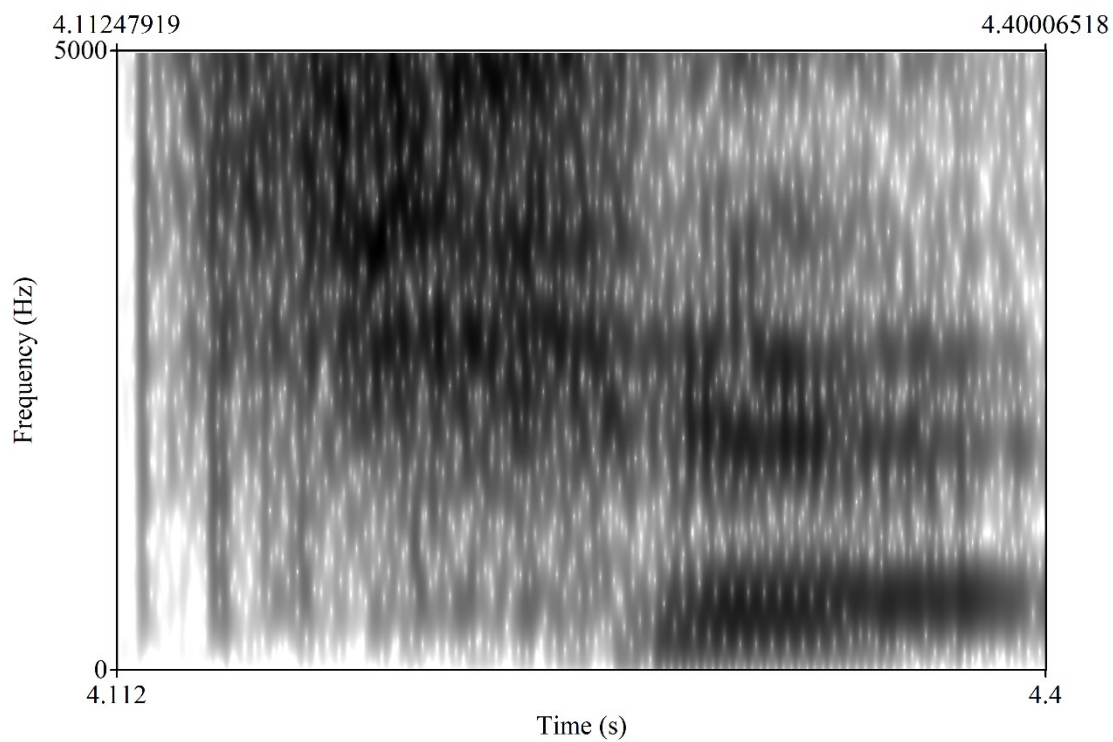


Figure 19b. A spectrogram of the word *te<sup>h</sup>i* ‘to want’

2.2.2.2.3 [dz]

Figures 20a-20b illustrate the voiced alveolo-palatal affricate with the form [dzí] ‘sinew’.

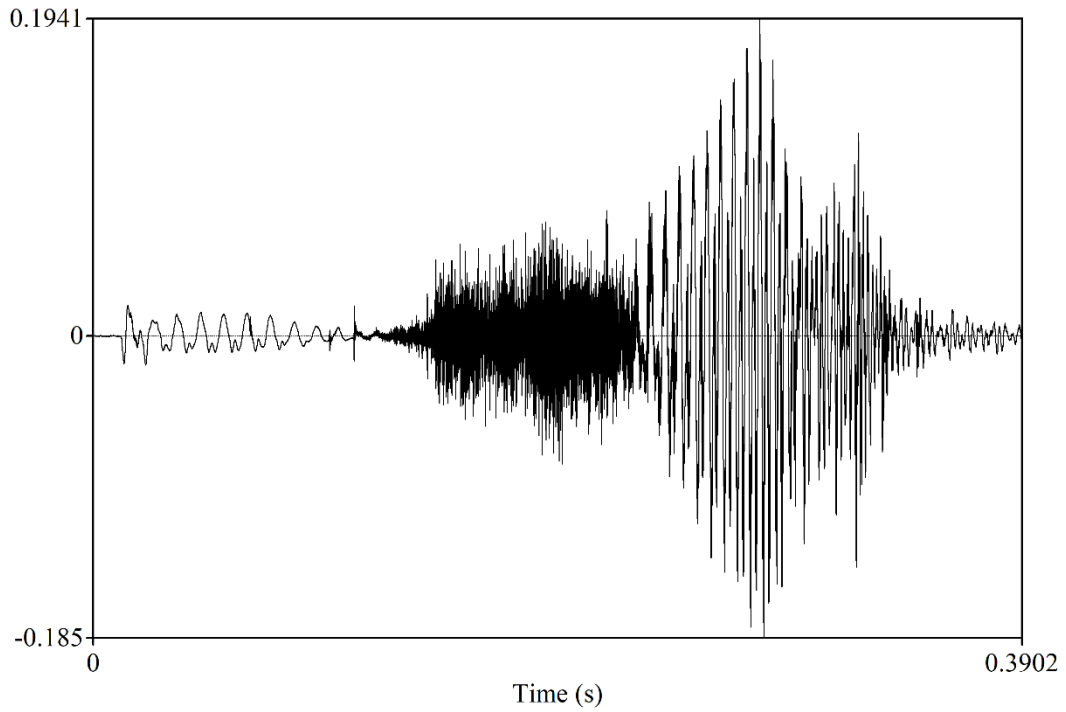


Figure 20a. A waveform of the word *dzí* ‘sinew’

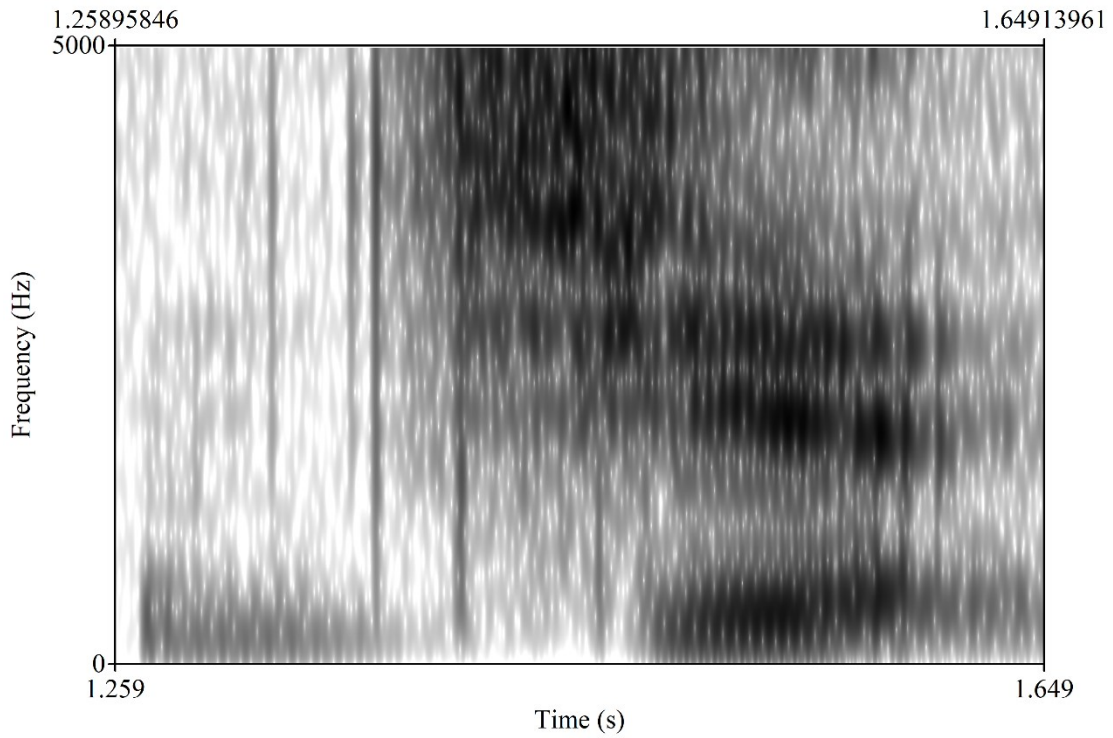


Figure 20b. A spectrogram of the word *dzi* ‘sinew’

### 2.2.2.3 Post-alveolar affricates

#### ***Minimally contrastive sets***

The post-alveolar affricates are [tʂ], [tʂʰ], and [dʒ]. Forms with [dʒ] are rare. The voiced post-alveolar affricate exhibits only slight prenasalization. Table 8 gives minimal sets for the post-alveolar affricates.

<i>Form</i>	<i>Gloss</i>
tʂi	‘build’
tʂ <sup>h</sup> iʂi	‘branch (ritual language)’
dzí	‘star’
tʂú-j	‘six-CLF’
tʂ <sup>h</sup> úný	‘to chase’
dzú	‘to sweep’
màtʂá	‘cooked rice’
tʂ <sup>h</sup> á	‘to step in mud’
dzǎl̀	‘leather striker of a <i>damaru</i> <sup>27</sup>

Table 11. Minimal sets for post-alveolar affricates

## Illustrations

### 2.2.2.3.1 [tʂ]

Figures 21a-21b illustrate the voiceless alveolo-palatal affricate with the form [tʂú-j] ‘six-CLF’<sup>28</sup>.

<sup>27</sup> A *damaru* (Sanskrit डमरु) is a handheld drum used in religious ceremonies.

<sup>28</sup> In Yonghe, the numbers 1-9 occur with an obligatory classifier.

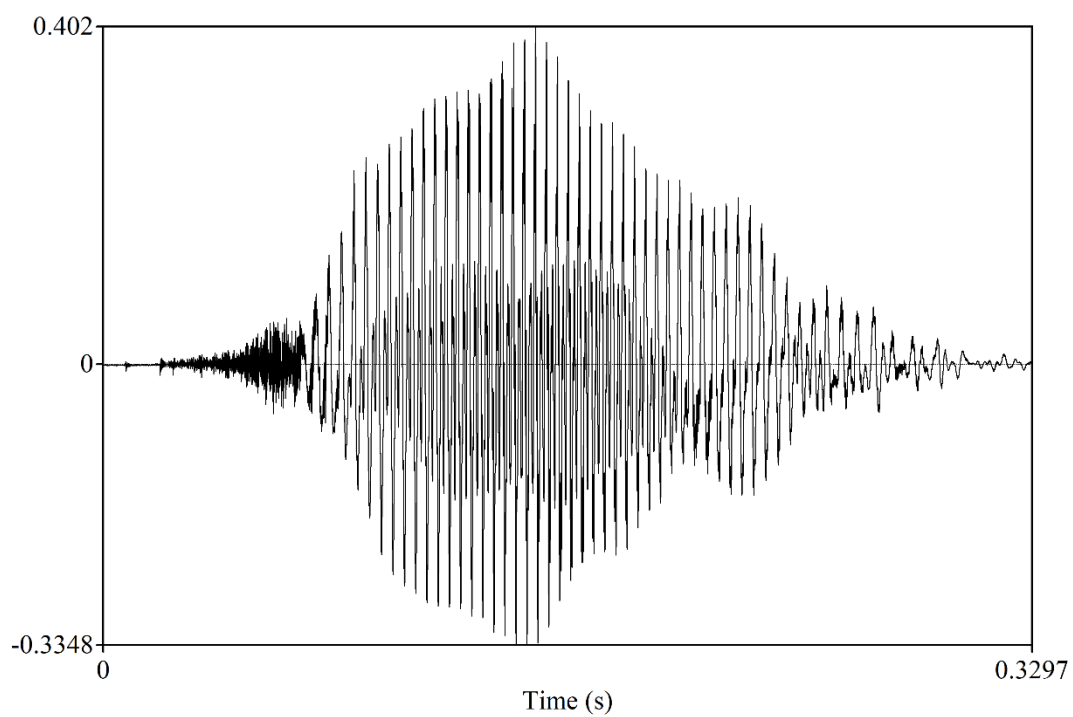


Figure 21a. A waveform of the word *tsú-j* 'six-CLF'

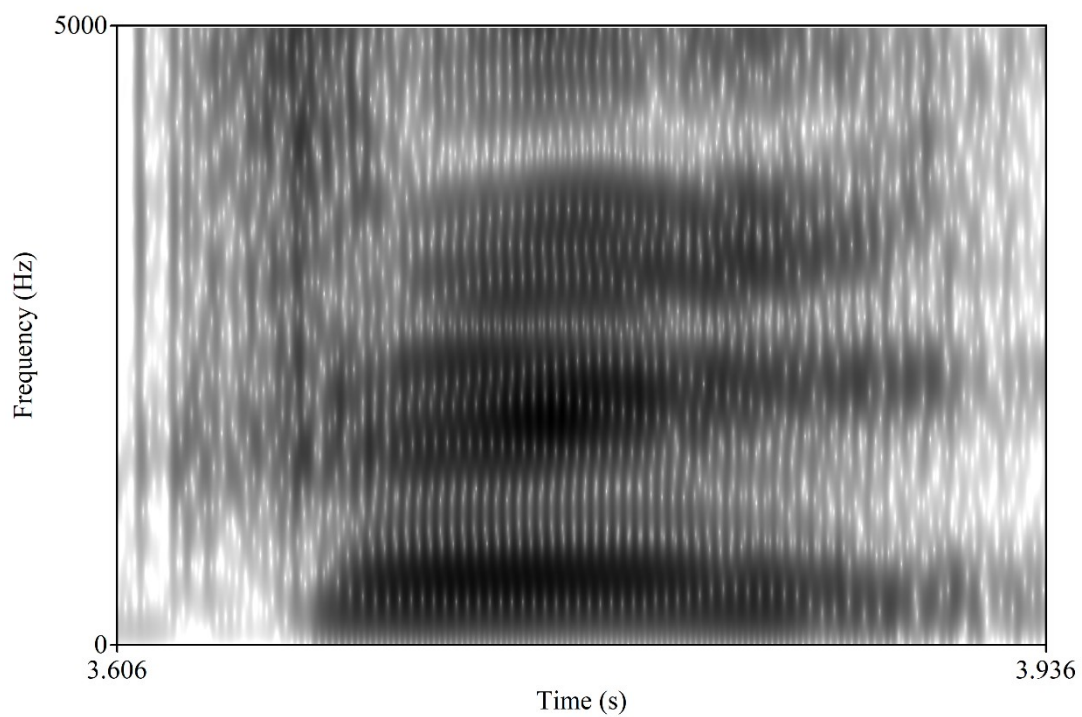


Figure 21b. A spectrogram of the word *tʂú-j* ‘six-CLF’

2.2.2.3.2 [tʂ<sup>h</sup>]

Figures 22a-22b illustrate the aspirated alveolo-palatal affricate with the form [tʂ<sup>h</sup>ùný] ‘to chase’.

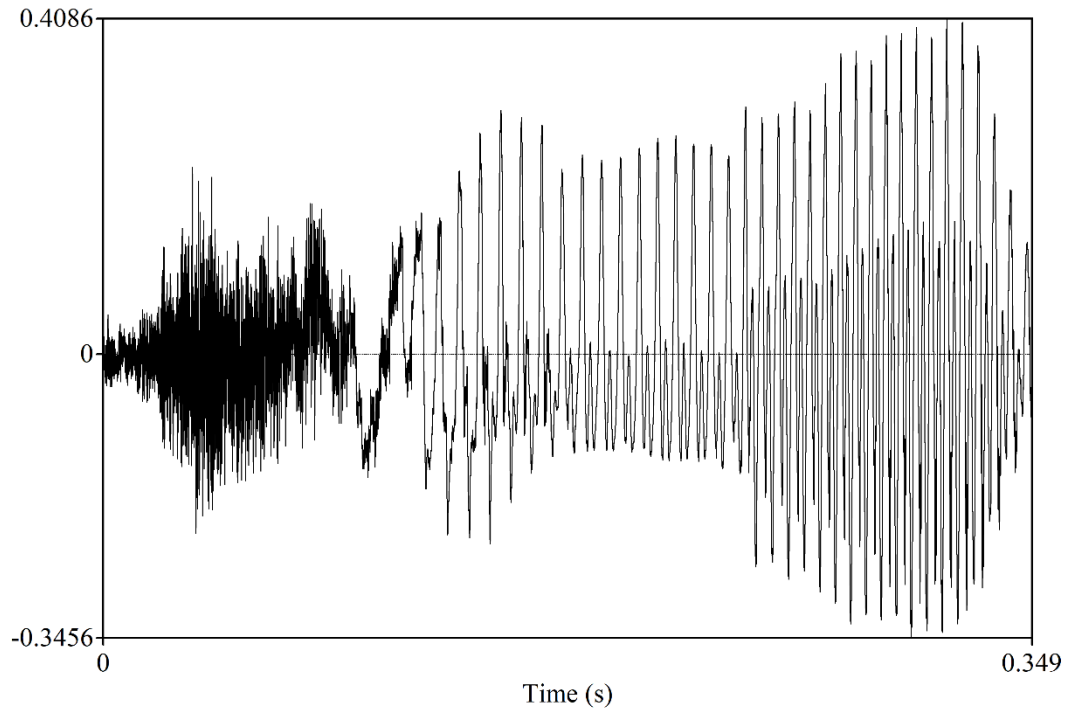
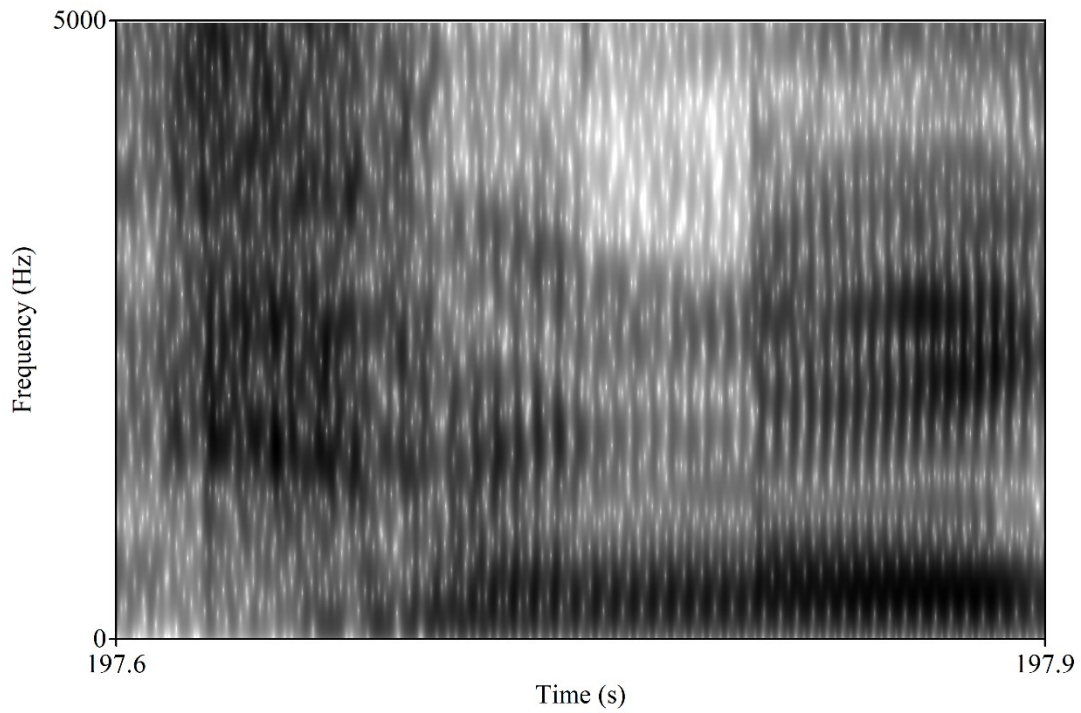


Figure 22a. A waveform of the word *tʂ<sup>h</sup>ùný* ‘to chase’



*Figure 22b.* A spectrogram of the word *tɕʰùnɿ* ‘to chase’

### 2.2.2.3.3 [dz]

The voiced post-alveolar affricate has very slight pre-nasalization. Figures 23a-23b illustrate the voiced alveolo-palatal affricate with the form [dzɿ] ‘star’.



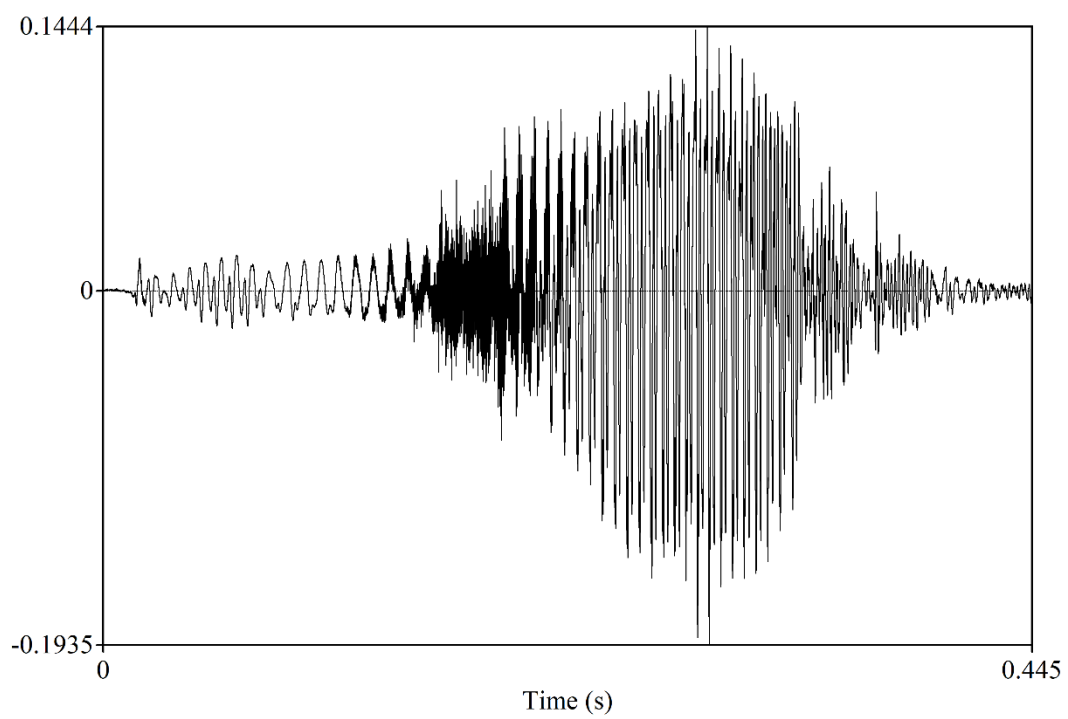


Figure 23a. A waveform of the word *dzi* ‘star’

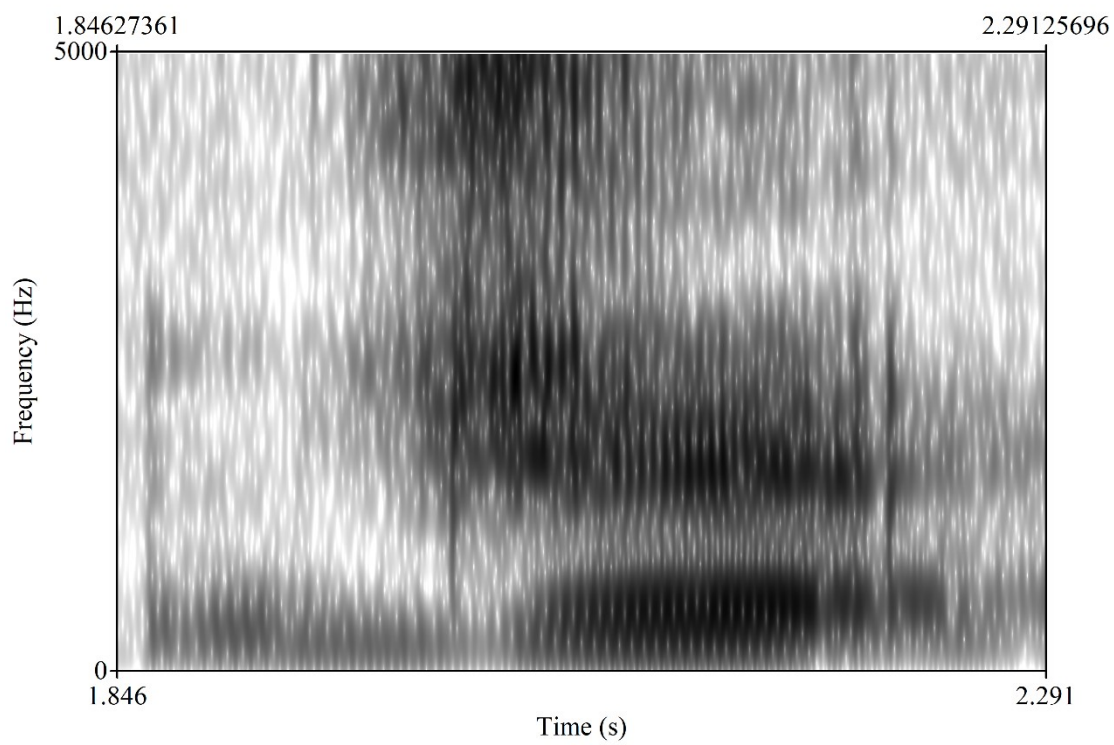


Figure 23b. A spectrogram of the word *dzi* ‘star’

#### *2.2.3.4 Issues of phonological analysis of the three sets of affricates*

The phonological status of the three affricates is a thorny issue. The data allow for multiple interpretations and there is a non-uniqueness of phonemic solutions to phonetic problems (Chao 1930). For native forms, there are patterns of partial complementary distribution. All three occur before certain vowels, such as [a], and so for the purposes of this study they will be represented distinctly.

### **2.2.3 Fricative consonants**

Yonghe has pairs of voiceless and voiced fricatives at five places of articulation: labial, alveolar, alveo-palatal, post-alveolar, velar, and glottal. Large inventories of fricatives are somewhat rare cross-linguistically (Gordon 2016: 46-47), but are not unusual for languages of the region (Sun H. 1981). This section discusses the pairs of fricatives beginning with the labials and ending with the glottals.

Whereas the spectrograms have been thus far presented with a frequency range of 0-5k hz, the bandwidth for the fricatives is 0-10k following Gordon et al. (2002).

#### *2.2.3.1 Bilabial fricatives*

##### ***Minimally contrastive sets***

There are two bilabial fricatives: [ɸ] and [β]. For some speakers, there is free variation between [ɸ] and [β] and [f] and [v] respectively. Some younger speakers do not have voiceless bilabial fricatives and only use labial fricatives. For example, [ɸùlá] ‘to wash’ and

[βá¹] ‘yak’ are said by most younger speakers as [fùlá] and [vá¹] respectively.<sup>29</sup> Table 12 gives examples of minimal sets.

<i>Form</i>	<i>Gloss</i>
φá¹	‘to act, pretend’
φæ	‘to thirsty’
φé-p <sup>h</sup> ù	‘pine’
φá¹	‘dhole’
βá¹	‘yak’
φú¹	‘to boil’
βú¹	‘drum’
βá¹	‘yak’
βǔ¹	‘to be many’

Table 12. Minimal sets for bilabial fricatives

Note that neither [φ] nor [β] occur frequently in the corpus. There are as yet no examples of [β] followed by a [-back] vowel. Both of these sounds are innovative in that they are the result of lenition from \*ʂp and \*ʂb clusters respectively. This explains why syllables with these onsets have rhotic vowels, as non-front vowels have rhotacization as a trace of retroflex fricative+stop clusters. Table 13 gives examples showing correspondences with other varieties.

<sup>29</sup> It is possible that this change is due to the influence of Sichuanese Mandarin, which has both [f] and [v] but lacks [φ] and [β]. It would require more work to disentangle potential Sinitic influence from language-internal factors, as [φ] and [β] may be inherently less time-stable than other sounds.

<i>Ronghong</i>	<i>Longxi</i>	<i>Yonghe</i>	Gloss
ʂpje	p <sup>l</sup> à	φḗ	‘thirst’
ʂpe	--	φḗ	‘Tibetan’
ʂpa	--	φá <sup>t</sup>	‘to act like’
ɛp <sup>l</sup> e	píá ɛí p <sup>h</sup> ù	φḗ-p <sup>h</sup> ù	‘pine’
zɓə	--	βá <sup>t</sup>	‘yak’
zɓu	bò	βu <sup>t</sup>	‘drum’

Table 13. The reduction of \*S-p/b onsets in Yonghe

### Illustrations

#### 2.2.3.1.1 [φ]

Figures 24a-24b illustrate the voiceless bilabial fricative sound using the form φú<sup>t</sup> ‘to boil’.

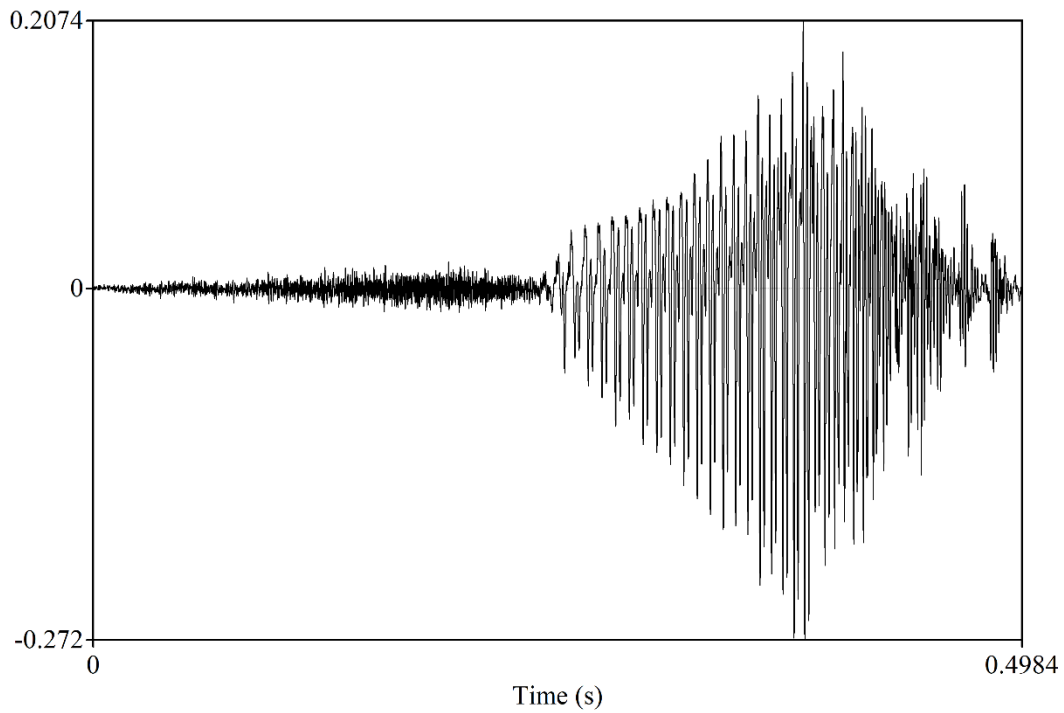
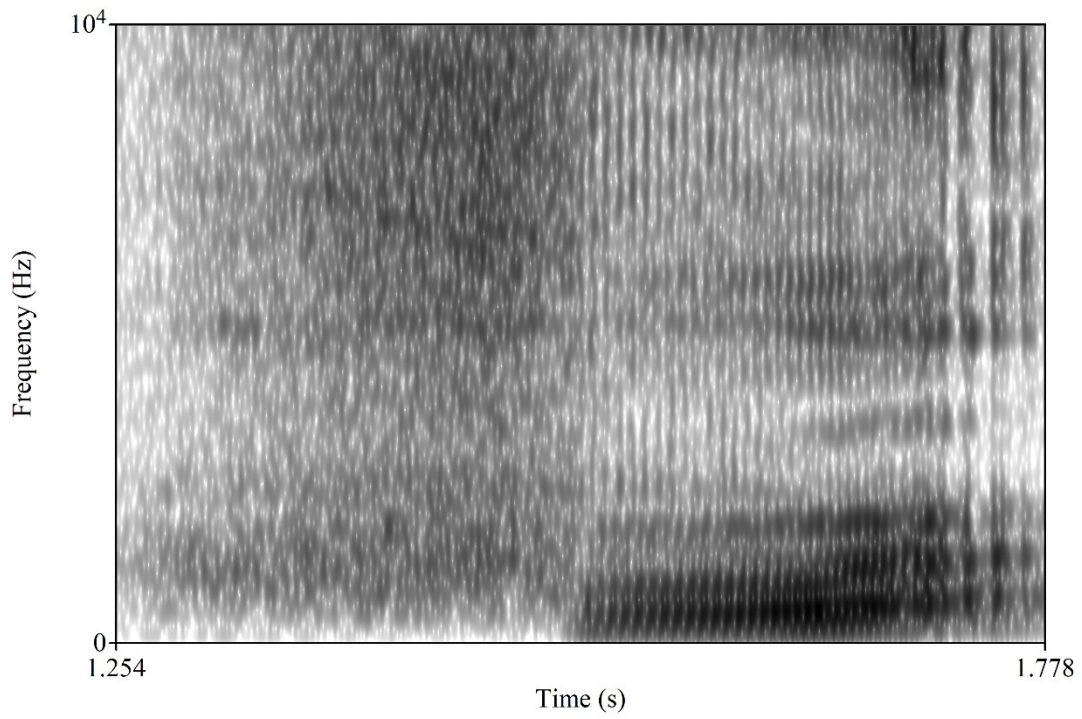


Figure 24a. A waveform of the word φú<sup>t</sup> ‘to boil’



*Figure 24b.* A spectrogram of the word  $\phi\acute{r}'$  'to boil'

2.2.3.1.2 [ $\beta$ ]

Figures 25a-25b illustrate this sound using the form  $\beta\acute{\lambda}'$  'yak'.

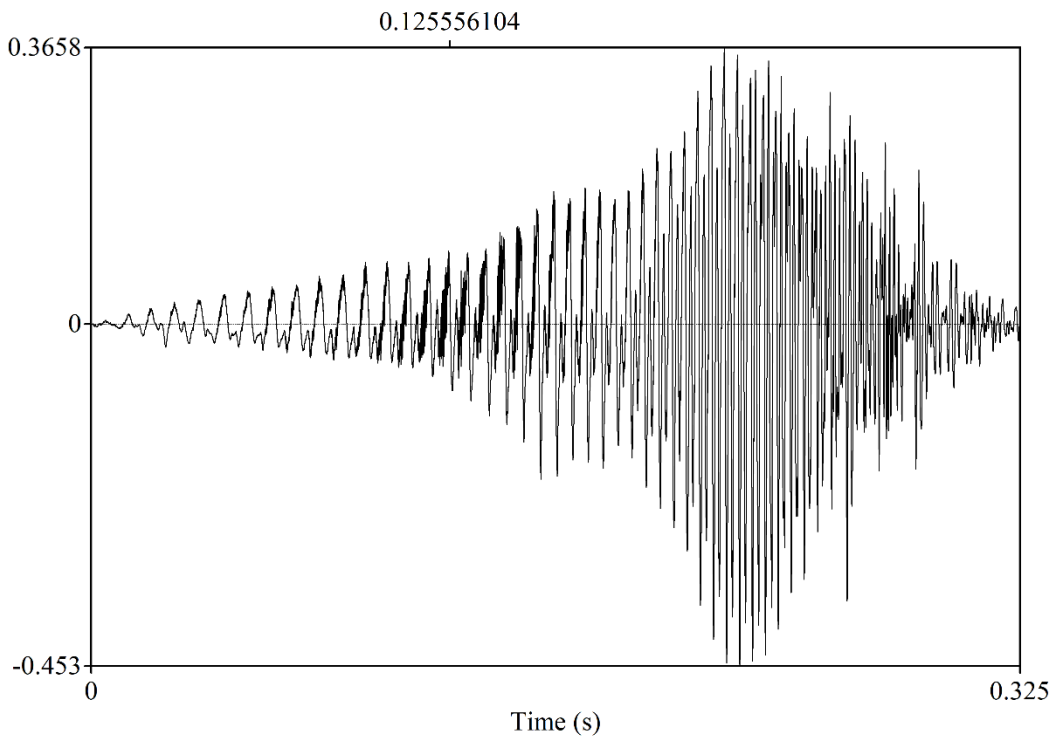


Figure 25a. A waveform of the word  $\beta\lambda'$  'yak'

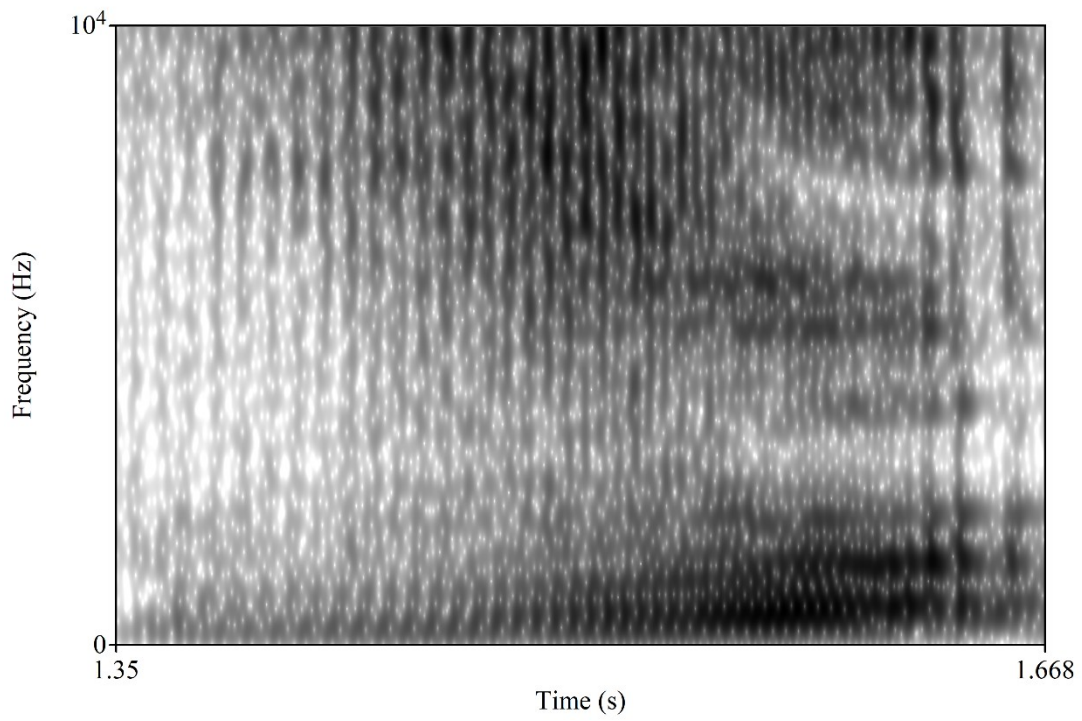


Figure 25b. A spectrogram of the word  $\beta\lambda'$  'yak'

### *Loanword phonology*

Local varieties of Mandarin do not have the sounds [ɸ] or [β], but do have the labio-dental fricatives [f] and [v]. Sounds with [f] and [v] in Sichuanese Mandarin are typically borrowed as such. Thus, 屋头 *wūtóu* ‘inside the home’ is borrowed as [vu<sup>45</sup>t<sup>h</sup>əw<sup>21</sup>]. Note that in this case Mandarin [w] corresponds to Sichuanese [v].

#### *2.2.3.2 Alveolar fricatives*

##### *Minimally contrastive sets*

There are two alveolar fricatives: [s] and [z]. Minimal sets are given in Table 11.

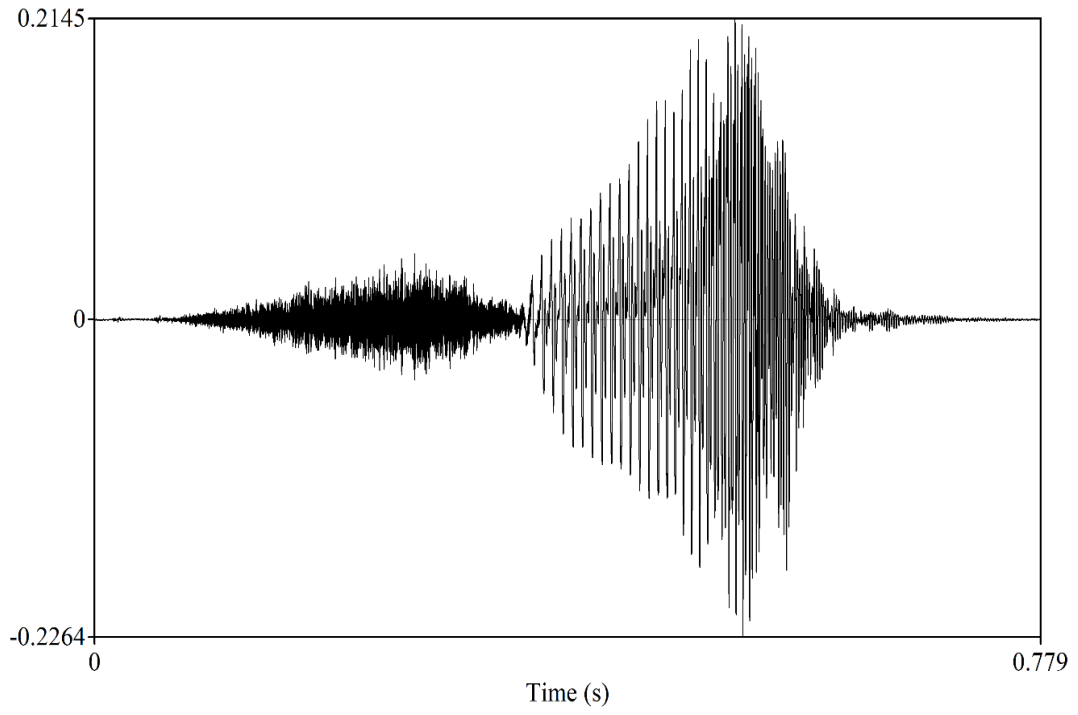
<i>Form</i>	<i>Gloss</i>
sǎ	‘three’
zǎ	‘to be easy’
-sá	‘CLF:sentence’
-zá	‘CLF:scoop’
sí	‘who’
zí	‘government official’
sǔ	‘hemp’
zú	‘earth, land’

*Table 14.* Minimal sets for alveolar fricatives

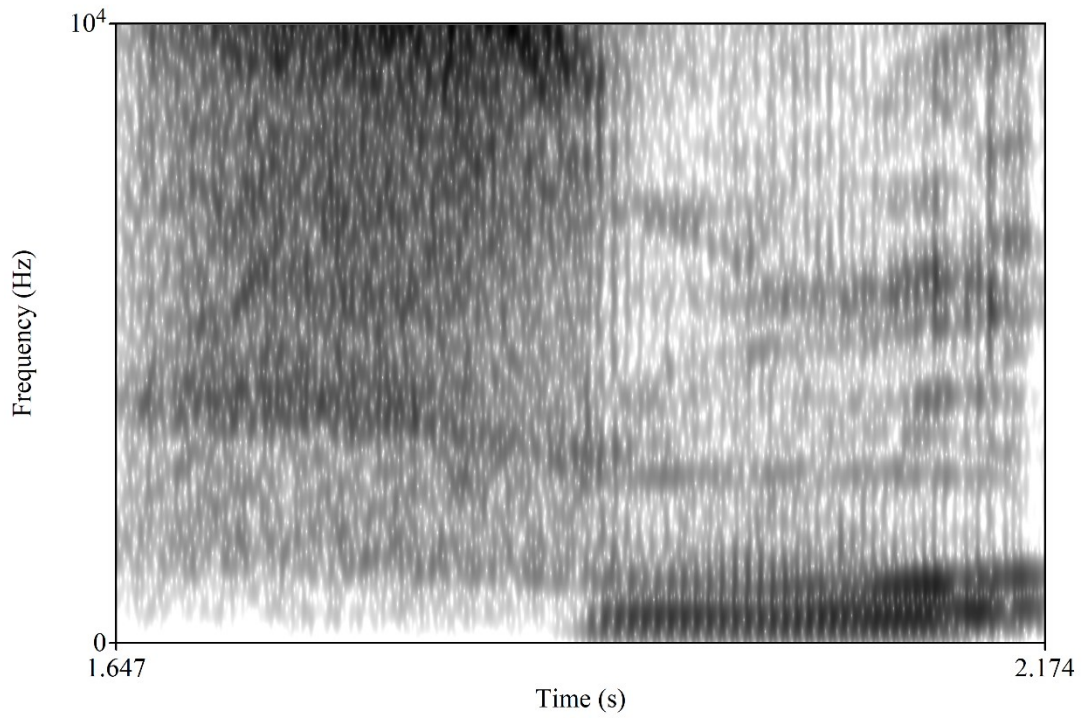
### *Illustrations*

#### *2.2.3.2.1 [s]*

Figures 26a-26b illustrate the voiceless alveolar fricative with the word *sǔ* ‘hemp’.



*Figure 26a.* A waveform of the word *sũ* ‘hemp’

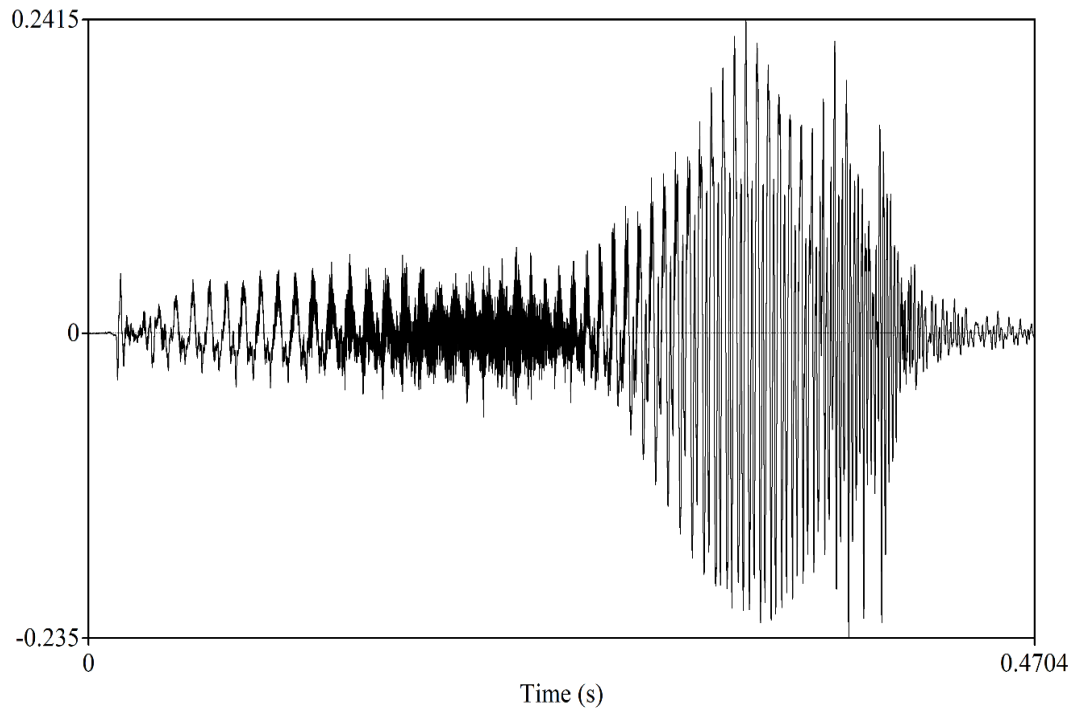


*Figure 26b.* A spectrogram of the word *sũ* ‘hemp’



2.2.3.2.2 [z]

Figures 27a-27b illustrate the voiced alveolar fricative using the form *zú* ‘earth’.



*Figure 27a.* A waveform of the word *zú* ‘earth’

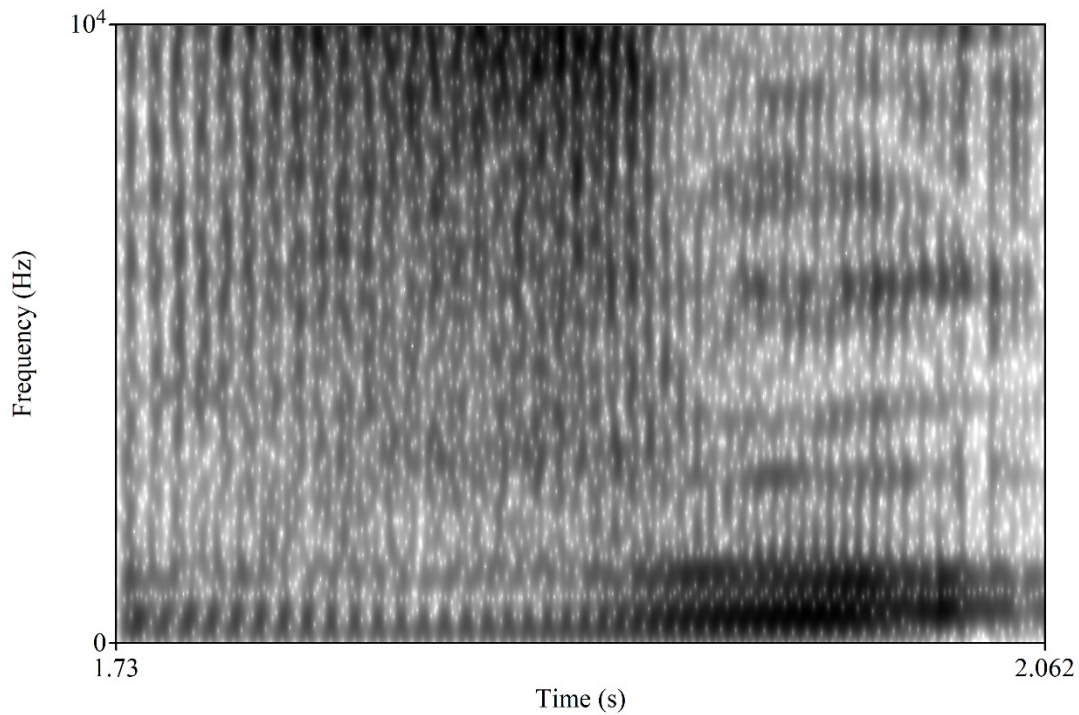


Figure 27b. A spectrogram of the word *zú* ‘earth’

### ***Loanword phonology***

Loanwords from Chinese with [s] are borrowed as such. For example, [sã<sup>45</sup>ʂi<sup>21</sup>] < Chinese 三十 *sānshí* ‘thirty’. Although some varieties of Sichuanese have [z] corresponding to Mandarin [ʀ] (*pinyin* <r>), Mao County varieties of Mandarin typically have [z] instead.<sup>30</sup>

### ***2.2.3.3 Alveolo-palatal fricatives***

#### ***Minimally contrastive sets***

<sup>30</sup> The relationship between the alveolars and post-alveolars is complicated by contact with Sichuanese. Some mainstream varieties of Sichuanese, such as Chengdu Sichuanese, have merged the alveolar and post-alveolar series. In some varieties of Sichuanese spoken in *Rngaba* Prefecture, the merger has taken place in the opposite direction, with post-alveolars prevailing. Chirkova et al. (2018) have shown that in communities that speak 尔苏 *Ersu*, an eastern Himalayan language of Sichuan, variation between alveolars and post-alveolars exhibits socially stratified convergence towards local varieties of Sichuanese.

There are two alveolo-palatal fricatives: [ç] and [ʒ]. Table 15 presents forms which show the minimal contrast.

<i>Form</i>	<i>Gloss</i>
ɛàɛá	‘magpie’
ɛà-t <sup>h</sup> á	‘to take down’
ɛí	‘cow’
zí	‘disease’
ɛý	‘tooth’
zý	‘rooster’
mùɛí	‘sun’
mùzí	‘sleep’
ɛǎ	‘release’
zǎ	‘believe:1’

*Table 15.* Minimal sets for alveolo-palatal fricatives

### *Illustrations*

#### 2.2.3.3.1 [ç]

Figures 28a-28b illustrate this sound using the form *ɛìmí* ‘fruit’.

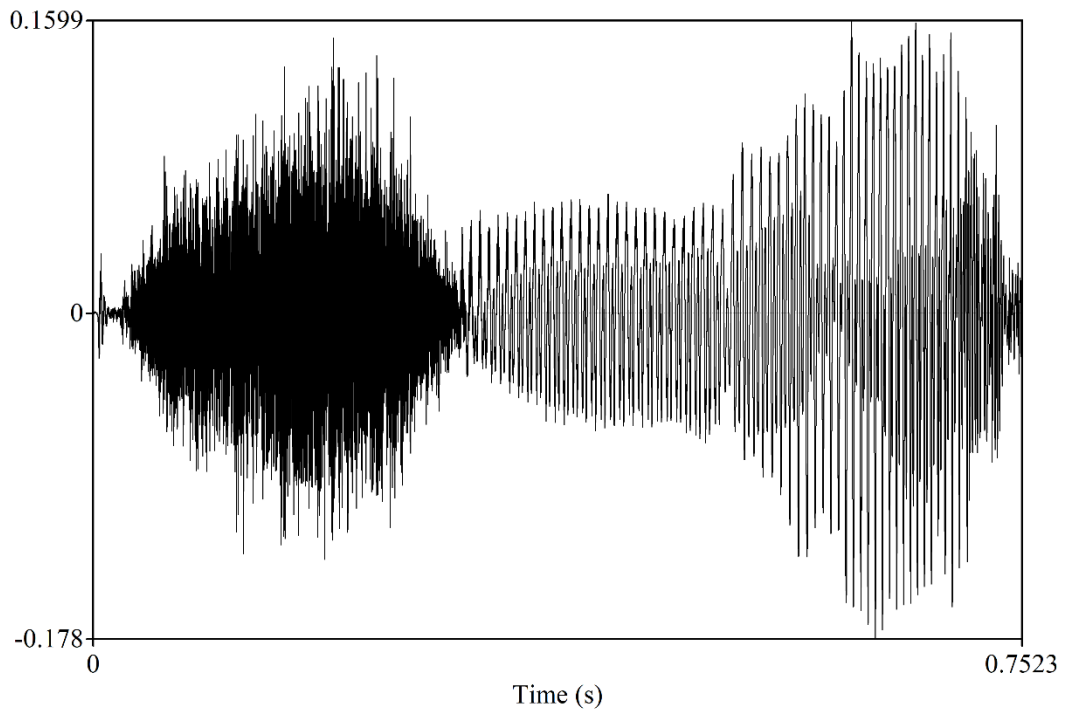
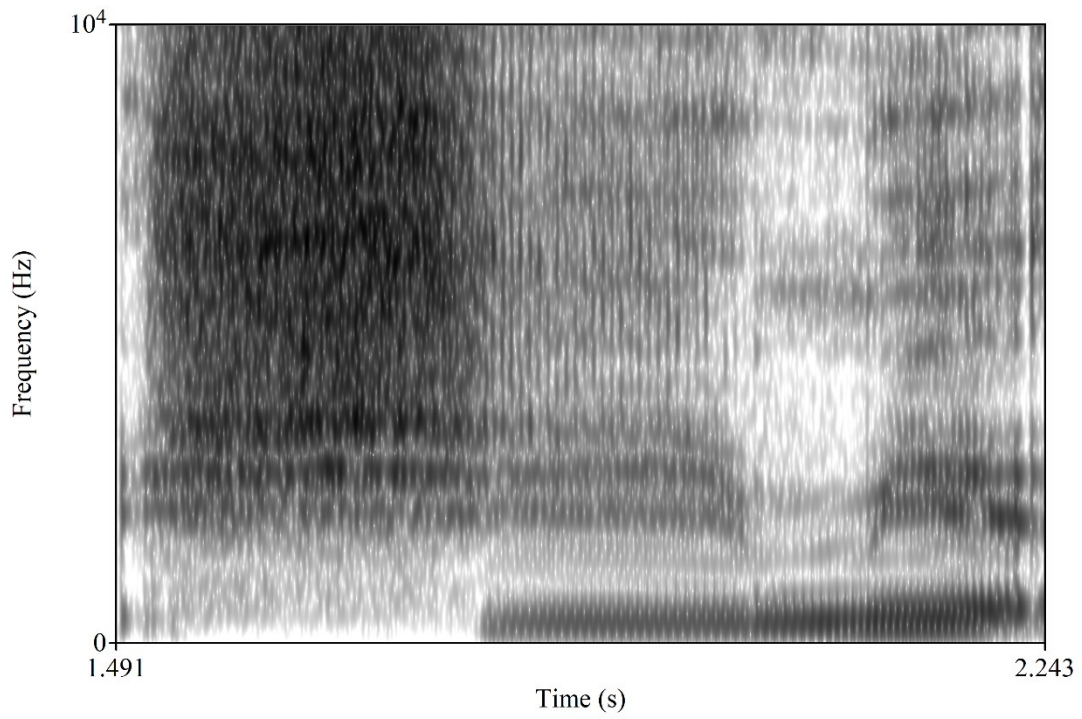


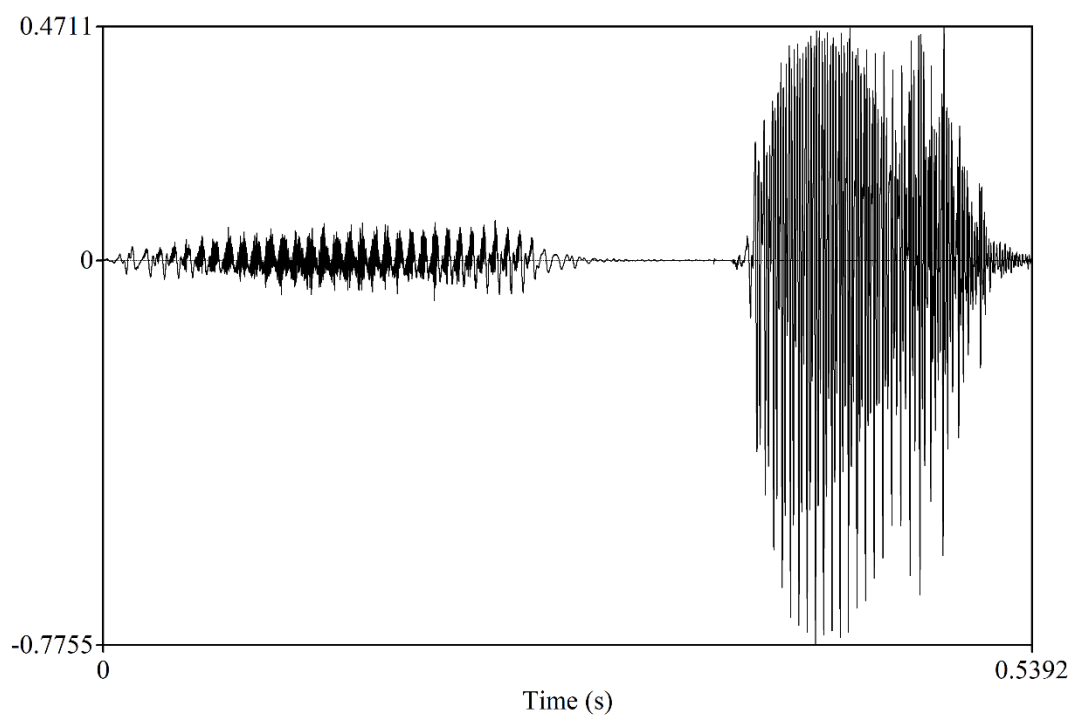
Figure 28a. A waveform of the word *çimí* 'fruit'



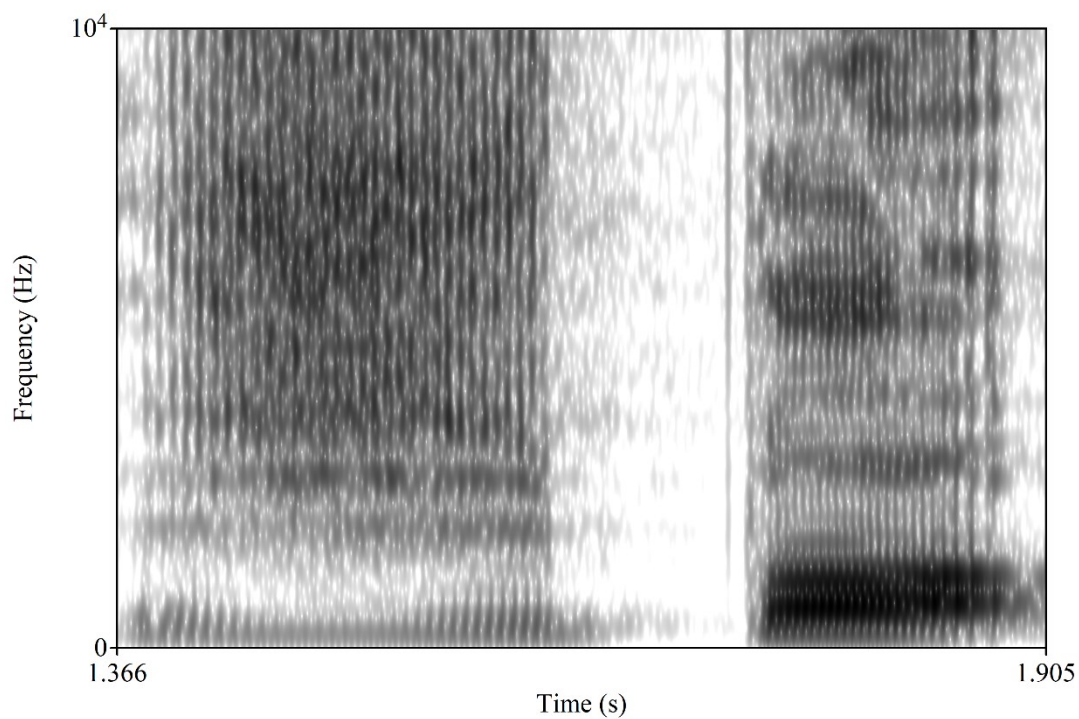
*Figure 28b.* A spectrogram of the word *ɛimí* ‘fruit’

2.2.3.3.2 [z]

Figures 29a-29b illustrate this sound using the form *zipá* ‘hand’.



*Figure 29a.* A waveform of the word *zipá* ‘hand’



*Figure 29b.* A spectrogram of the word *zipá* ‘hand’



refrain                    person name   NEG-to.name   person heart   hurt   PROS  
 refrain  
 ‘If a person is not called by their name, the person’s heart aches.’

- (1b) o ʃwa lo ti ʃo:: k<sup>h</sup>ú málɿ    mè-p<sup>h</sup>é            k<sup>h</sup>ú    xtí-zì-ma            o ʃwa lo ti ʃo  
 refrain                    valley name   NEG-to.name   valley heart-hurt-PROS   refrain  
 ‘If a valley is not called by its name, the valley’s heart aches.’

The sequence [zɔ] may also be found in some forms of Chinese origin. Such as, [zò-t<sup>h</sup>á] ‘to be weak’ < Chinese 弱 ruò ‘weak’. Native forms contain the sequence [ʃe] but [zɛ] appears to be restricted to Chinese borrowings, such as zé-t<sup>h</sup>à ‘to provoke’ from Chinese 惹 rě ‘to provoke’

***Illustrations***

Figures 30a-31b give illustrations of the two post-alveolar affricates.

2.2.3.4.1 [ʃ]



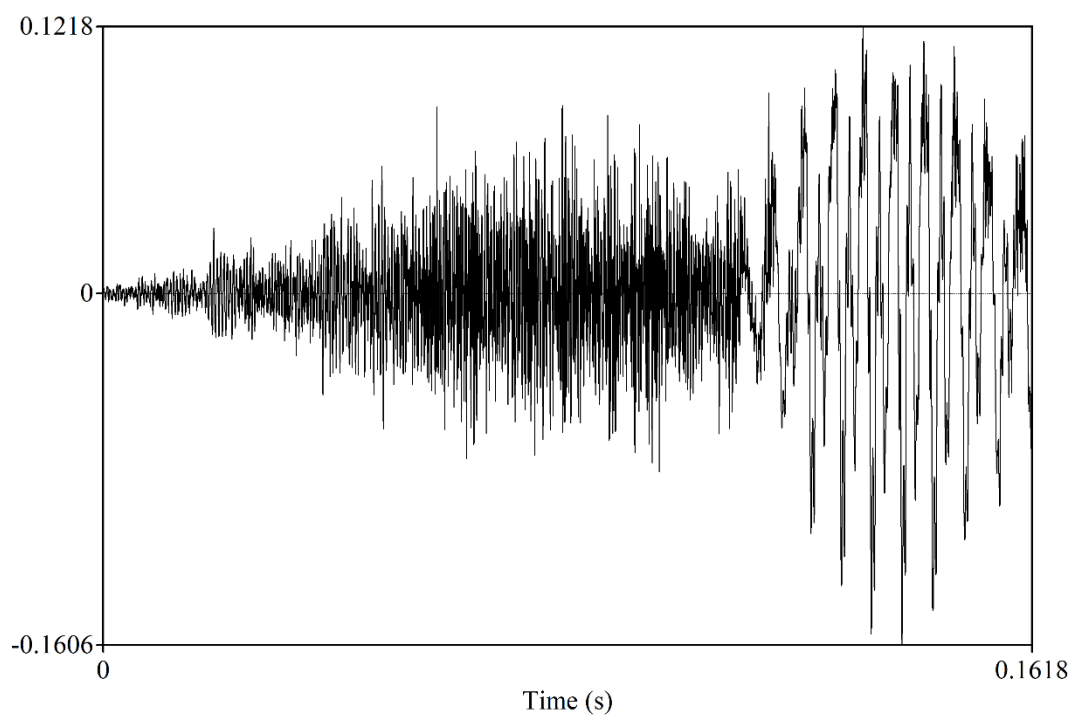


Figure 30a. A waveform of the word *ʒi* 'shit'

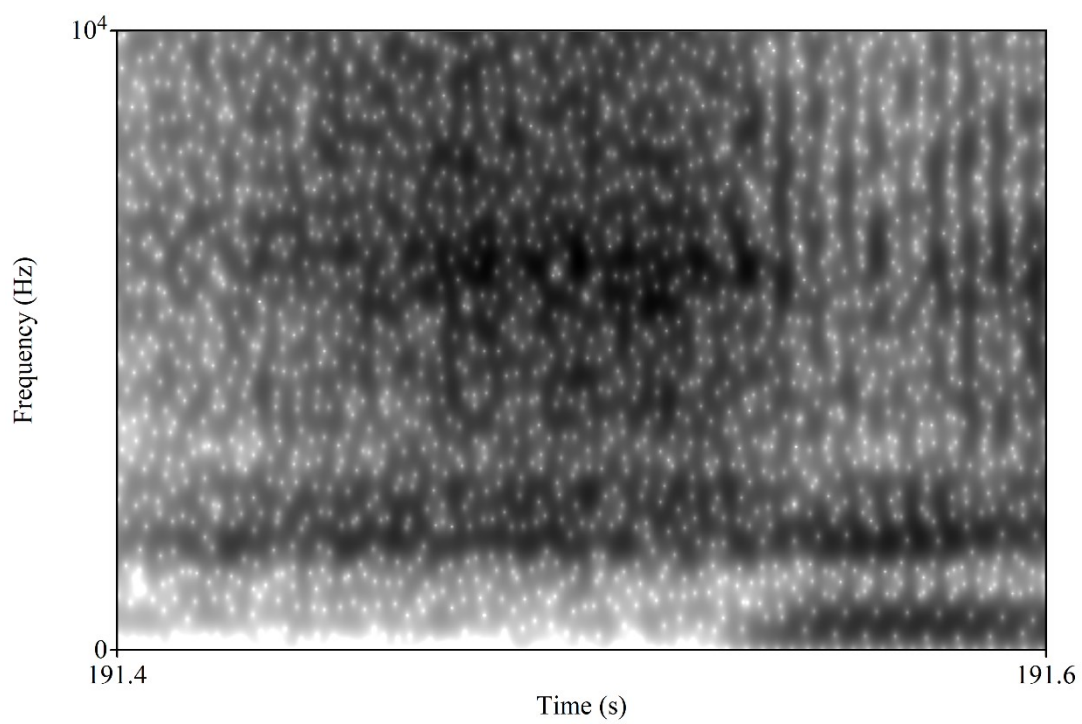


Figure 30b. A spectrogram of the word *ʒi* 'shit'

2.2.3.4.2 [z]

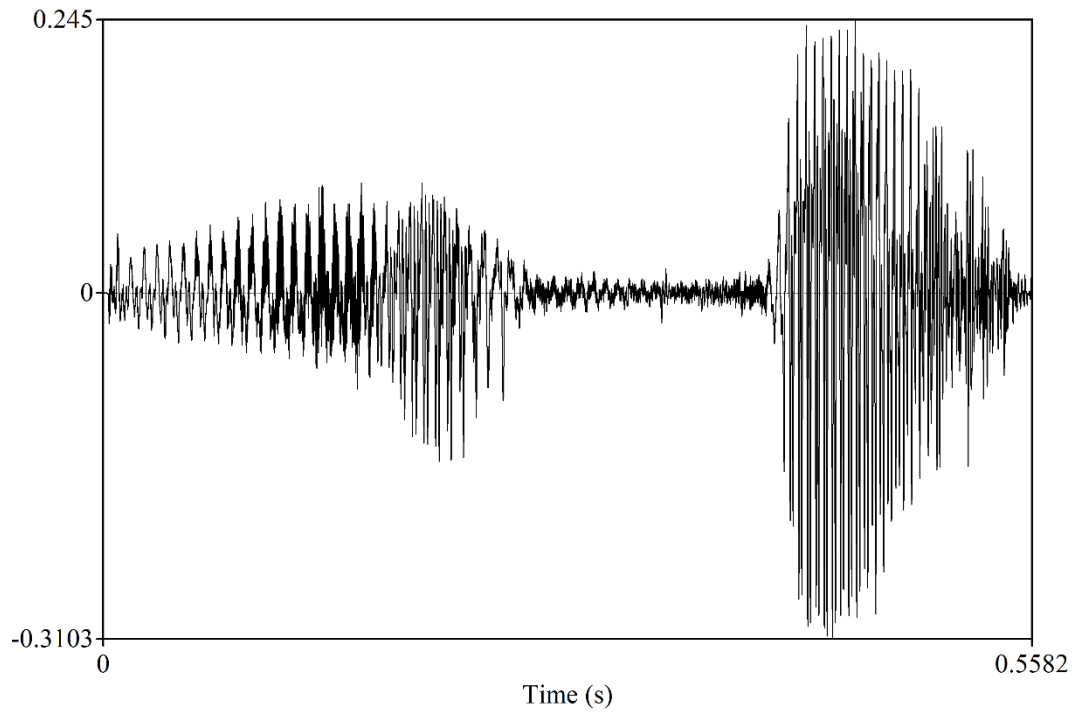


Figure 31a. A waveform of the word *zihur* 'wild cow'

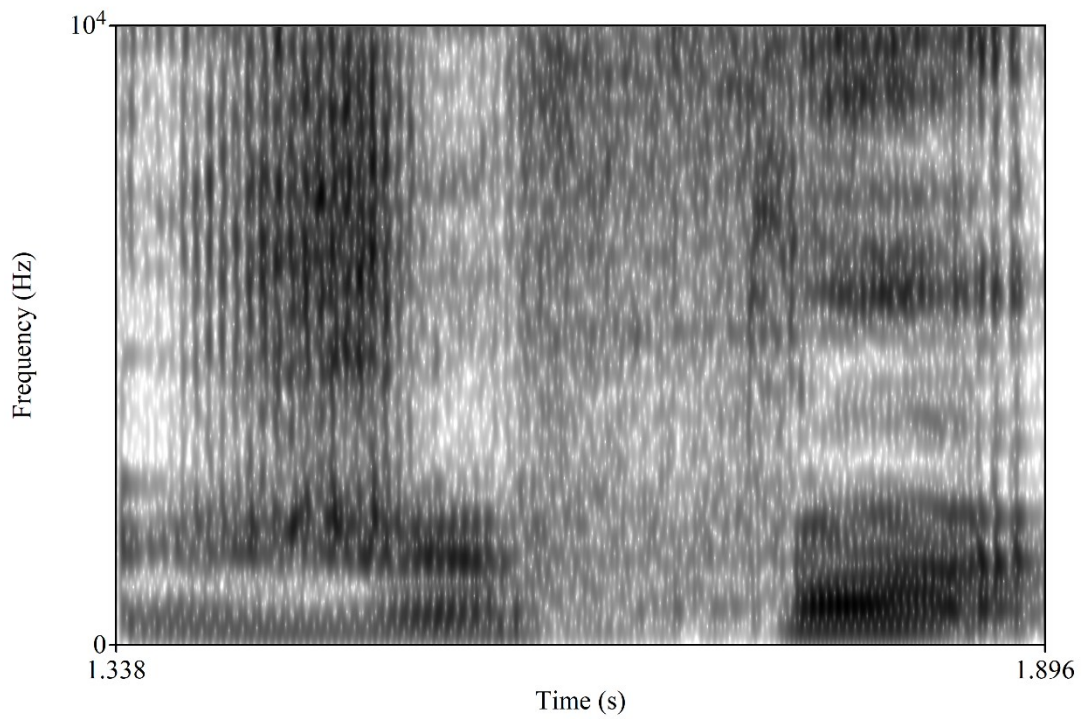


Figure 31b. A spectrogram of the word *zìhú* ‘wild cow’

### ***Loanword phonology***

Mandarin forms with [ʂ] are borrowed as such. Thus *shíú* ‘time’ < 时候 *shíhou* ‘time’. The borrowing of forms with post-alveolar fricatives in Mandarin is a complicated issue which cannot be explored here. Sichuanese words with [ʐ] are borrowed as such. Thus, the word 日 *rì* ‘sun’<sup>31</sup> is said by Yonghe speakers as [ʐ].<sup>213</sup>

#### ***2.2.3.5 Velar fricatives***

There are two velar fricatives: [x] and [ɣ]. The voiced velar fricative is rare and is only found in a small number of lexical forms. There is an additional fricative [ç] which is in complementary distribution with both [x] and [h] after front vowels /i/, /y/ and /e/. The voiced velar fricative [ɣ] does not occur before front vowels.

### ***Minimally contrastive sets***

Table 17 gives minimal sets.

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<sup>31</sup> This term is also a common expletive.

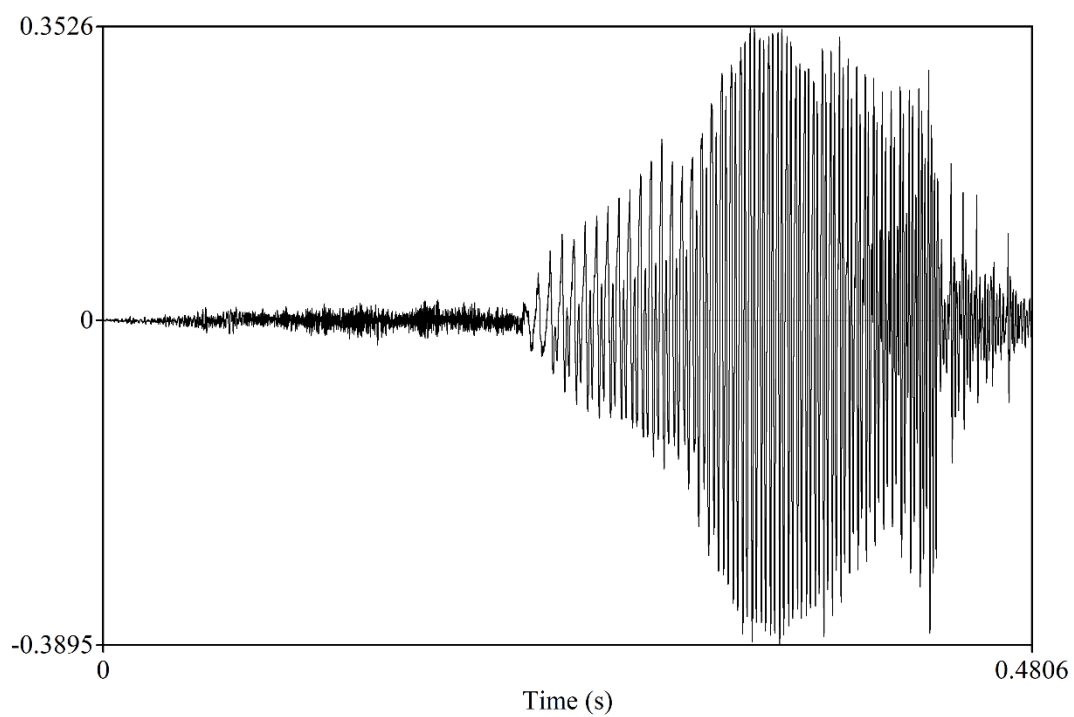
<i>Form</i>	<i>Gloss</i>
xǐ	‘wine’
xý	‘to steal’
xé	‘to be steep’
xǎ	‘needle’
ɣá	‘to pour, irrigate’
xá	‘to be free’
ɣá	‘to take off’
xá <sup>1</sup>	‘to be lazy’
ɣá <sup>1</sup>	‘Chinese’

*Table 17.* Minimal sets for velar fricatives

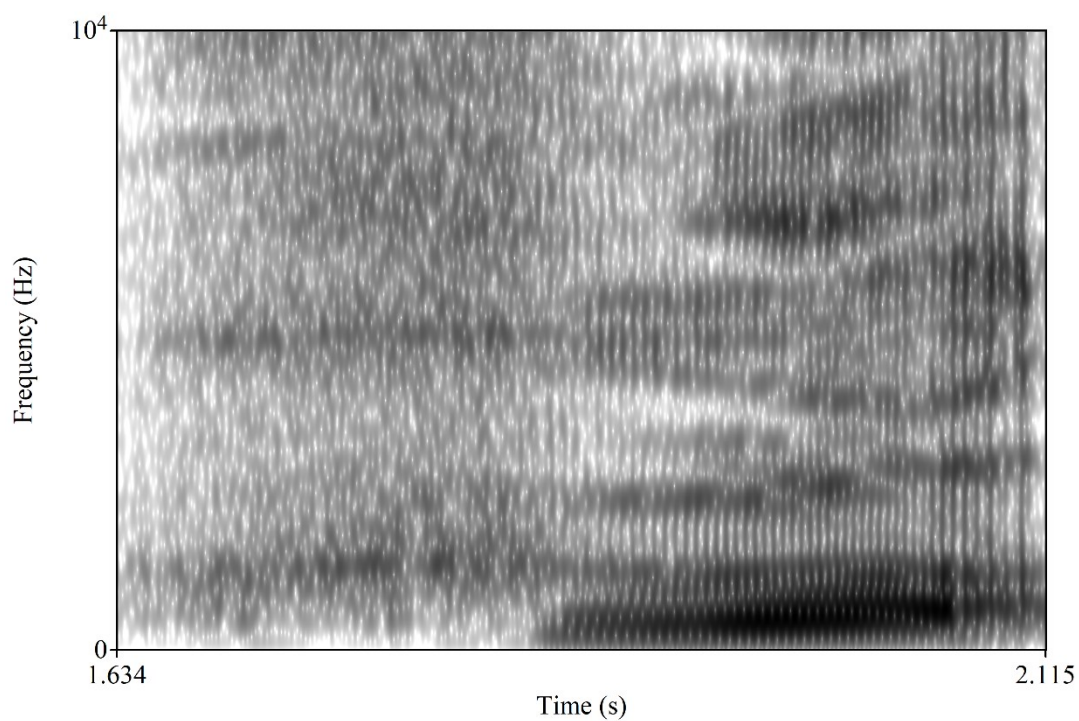
***Illustrations***

2.2.3.5.1 [x]

Figures 32a-32b illustrate the voiceless velar fricative using the form xǎ ‘needle’.



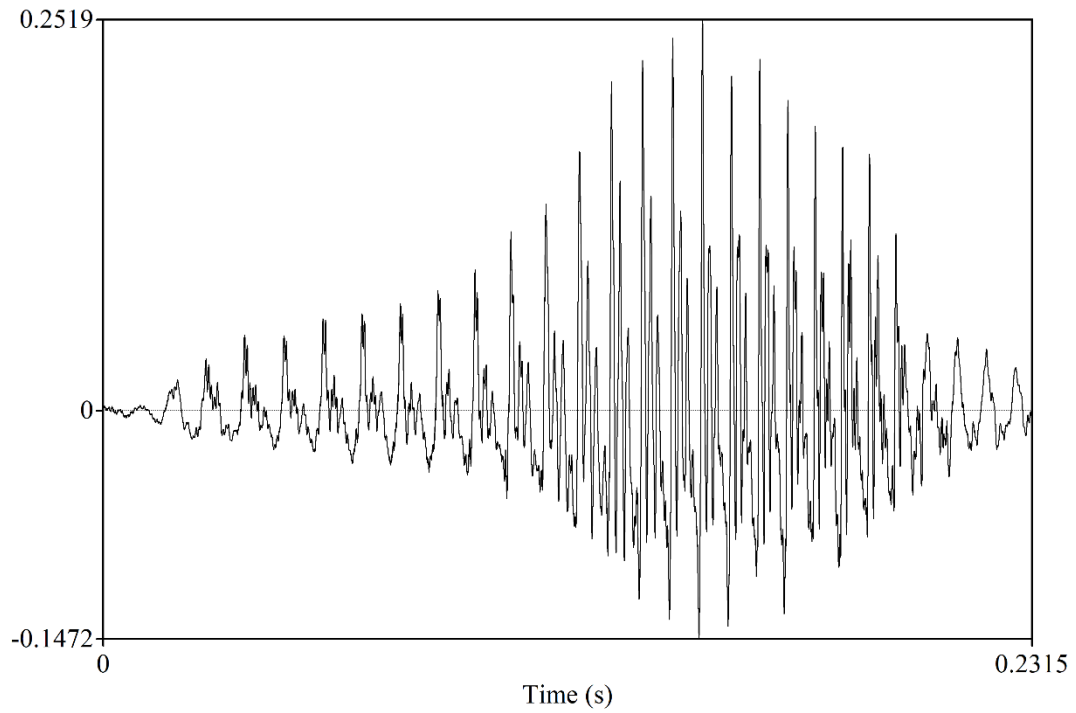
*Figure 32a.* A waveform of the word *xǎ* ‘needle’



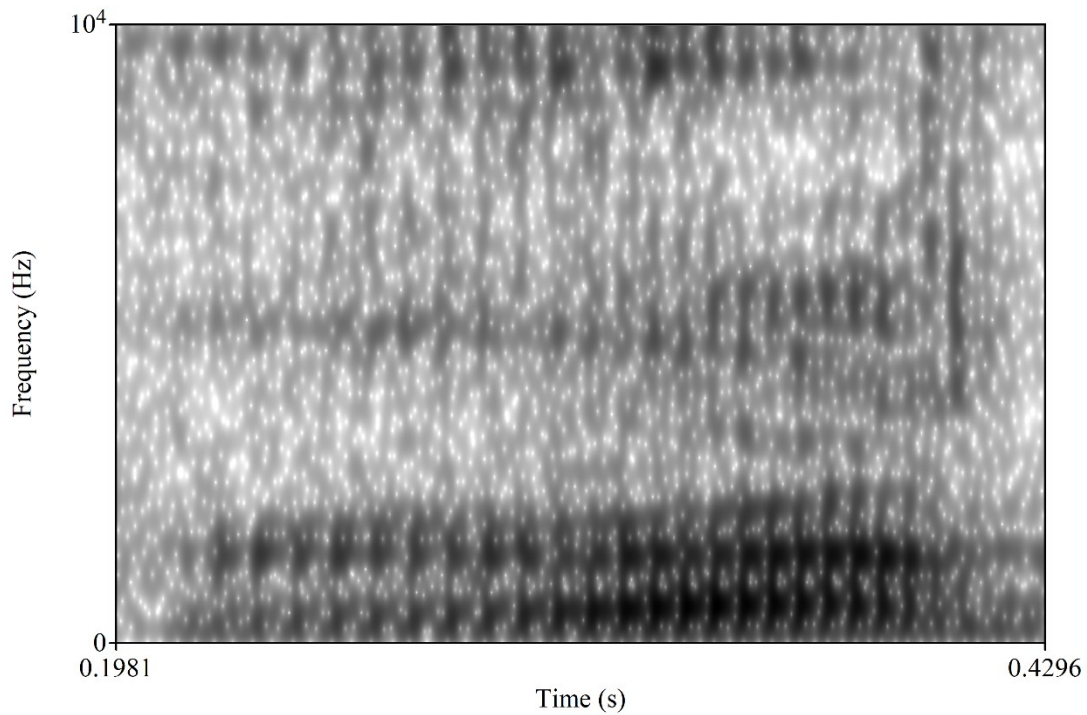
*Figure 32b.* A spectrogram of the word *xǎ* ‘needle’

### 2.2.3.5.2 [ɣ]

Figures 33a-33b illustrate the voiced velar fricative.



*Figure 33a.* A waveform of the word  $\gamma\acute{\alpha}$  ‘to pour’



*Figure 33b.* A spectrogram of the word *yá* ‘to pour’

#### 2.2.3.6 Glottal fricatives

Like some other varieties, Yonghe contrasts [h] and [ɦ]. These sounds are rarely found in lexical items, but occur often in opposition to one another as orientational prefixes meaning ‘outward’ and ‘downward’ respectively. Thus, *hè-kí* ‘go out’ vs. *ɦè-kí* ‘go down’.<sup>32</sup> Figures 34a-35b give illustrations of these forms.

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<sup>32</sup> The vowel quality of the prefix is determined in part by the phonetic environment of the prefix.

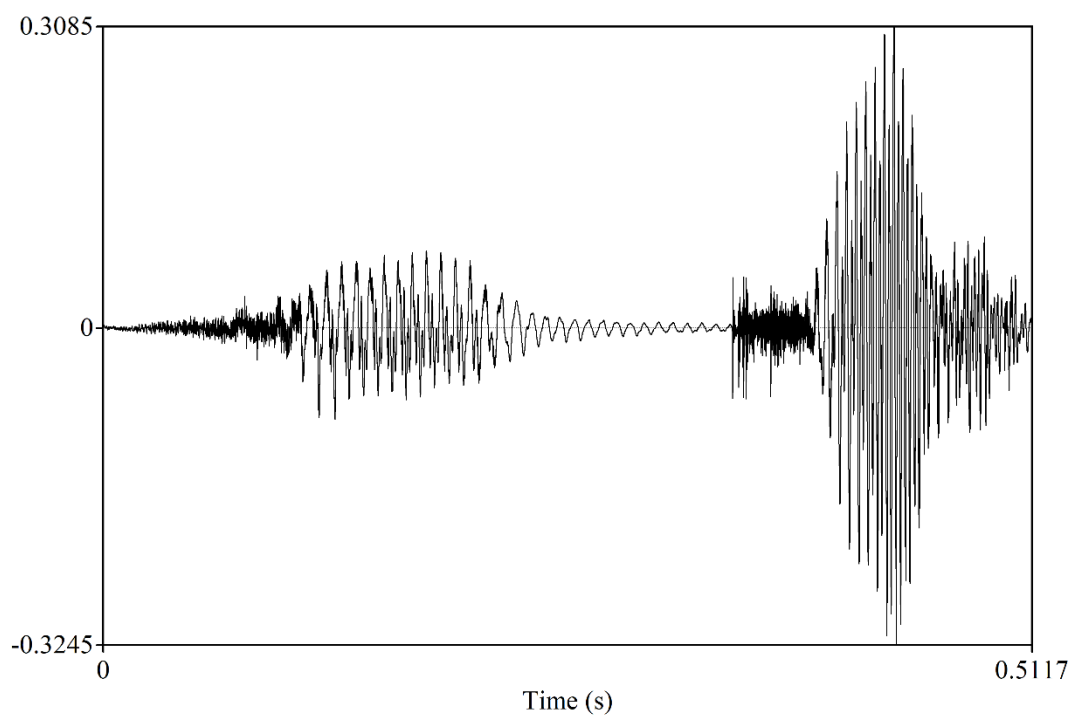


Figure 34a. A waveform of the word *hè-kí* ‘go-out’

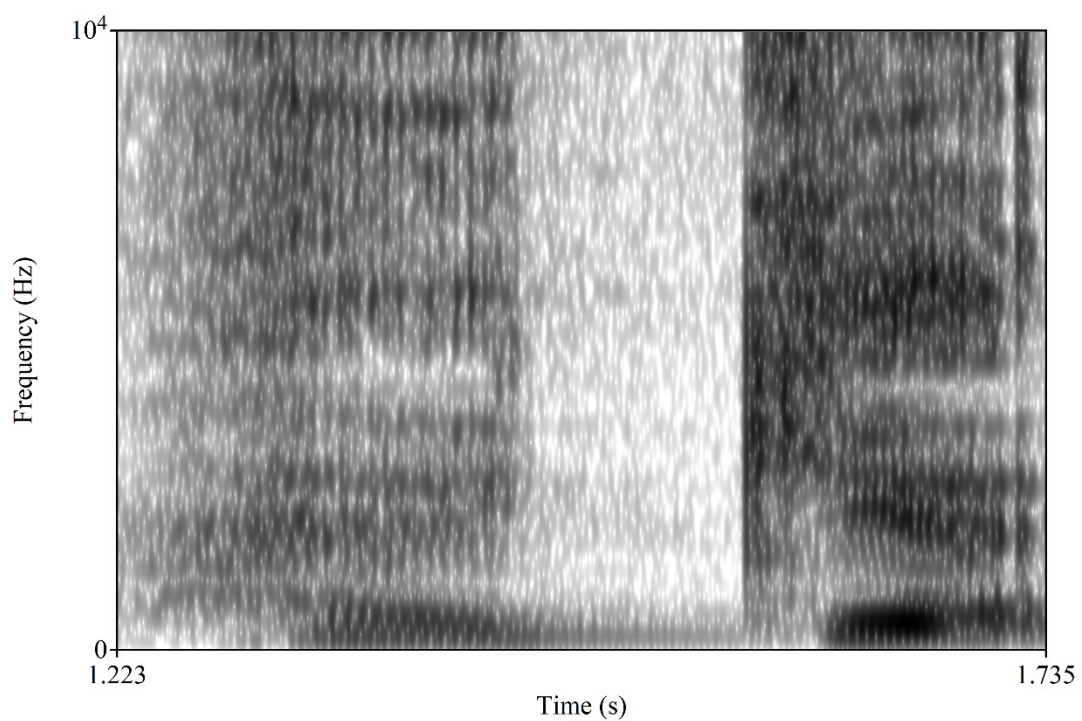


Figure 34b. A spectrogram of the word *hè-kí* ‘go-out’



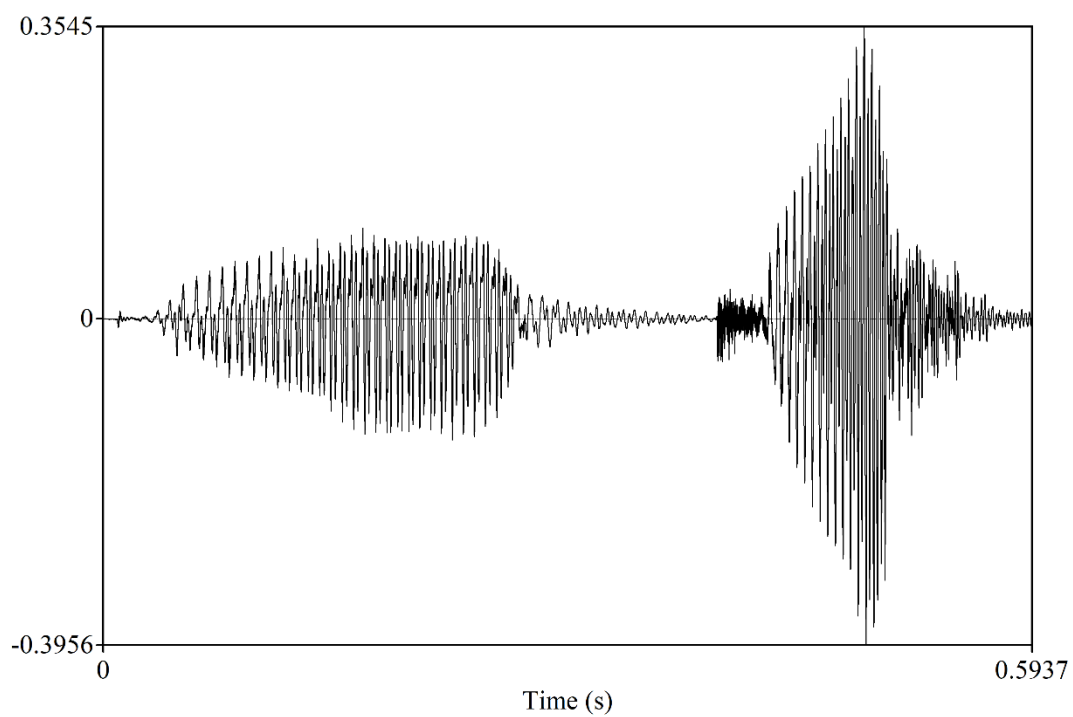


Figure 35a. A waveform of the word *hè-kí* ORT:down-go

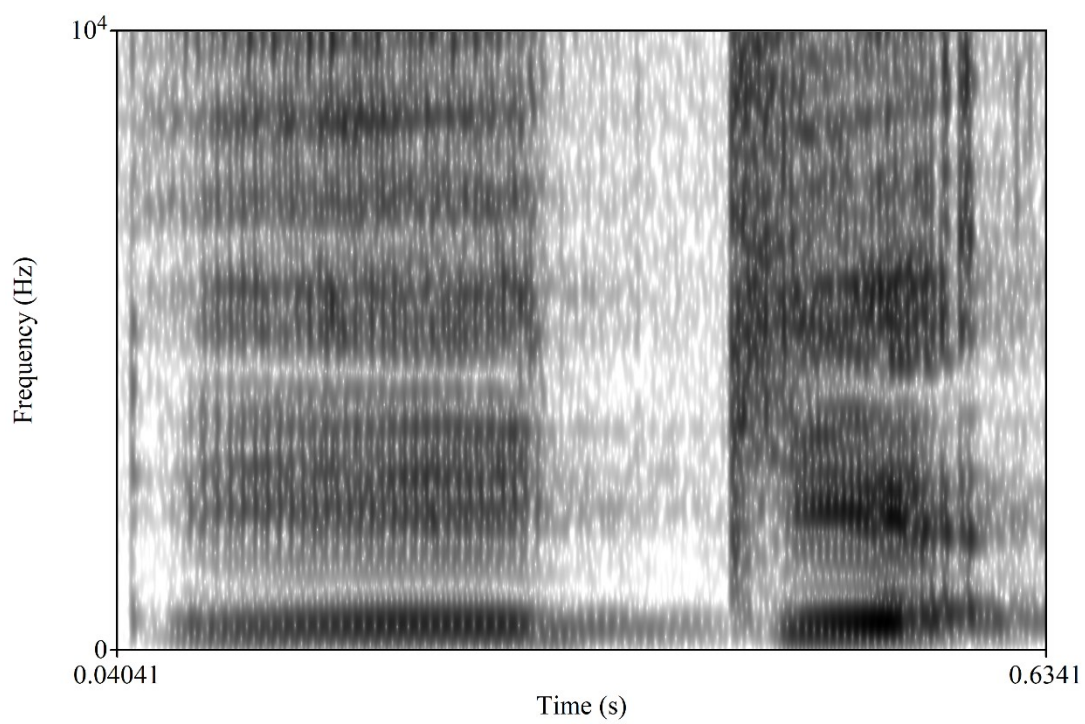
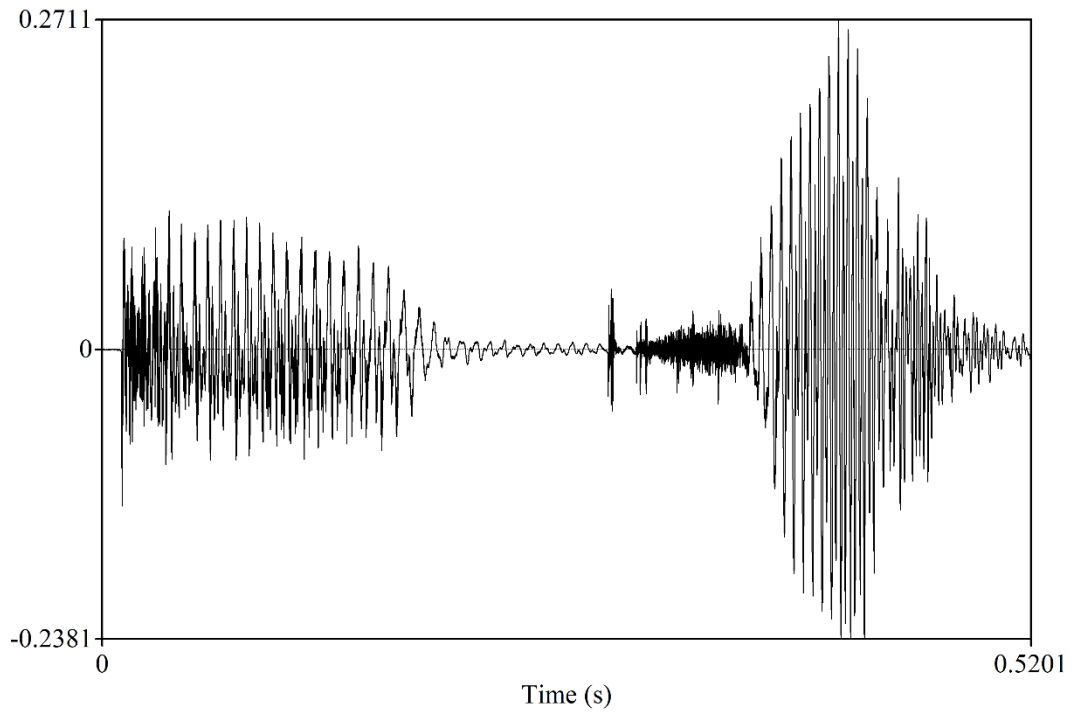
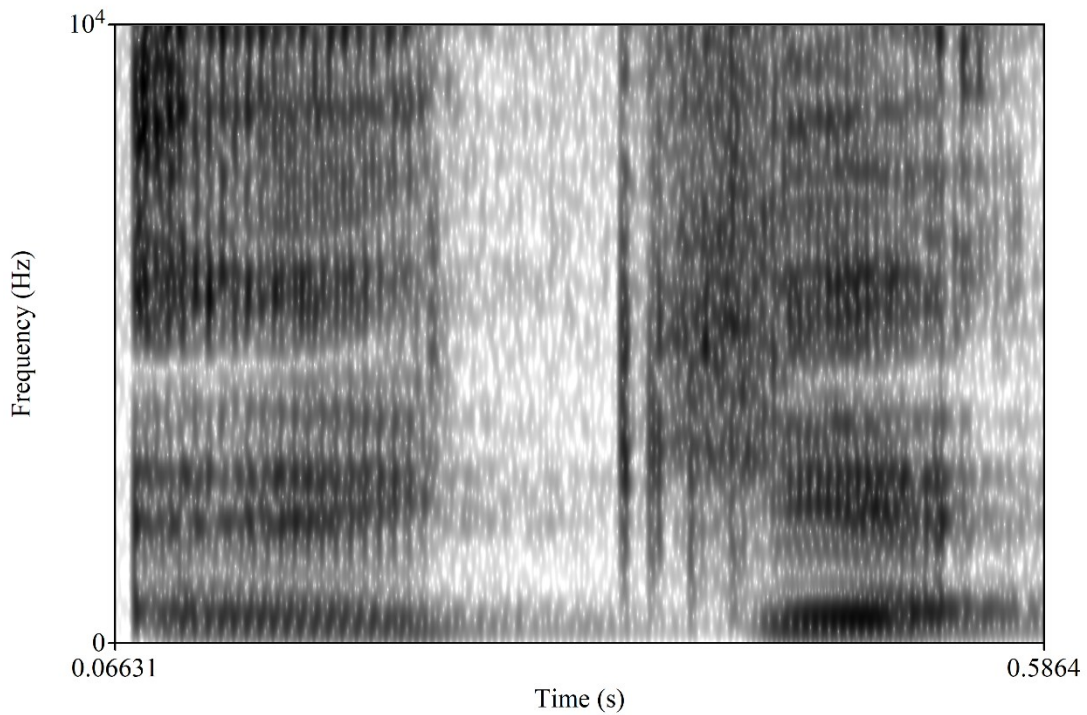


Figure 35b. A spectrogram of the word *hè-kí* ORT:down-go

In order to show the contrast with a glottal stop, illustrations of the word *ʔè-kí* ‘go in’ are given in Figures 36a-36b.



*Figure 36a.* A waveform of the word *ʔè-kí* ‘go in’



*Figure 36b.* A spectrogram of the word *pè-kí* ‘go in’

### ***Loanword phonology***

Local varieties of Chinese lack glottal fricatives.

### **2.2.4 Nasals**

There are, phonetically, four different nasal consonants: [m], [n], [ɲ], and [ŋ]. The palatalized nasal is represented as [ɲ] here, as there is no distinction between [ɲ] and [ŋ]. Engma occurs word-internally and never in onset position.

<i>Form</i>	<i>Gloss</i>
mǎ	‘mother
nǎ	‘here, take this!’
nǎé	‘brain’

Table 18. Minimal sets for nasal consonants

#### 2.2.4.1 Bilabial nasal [m]

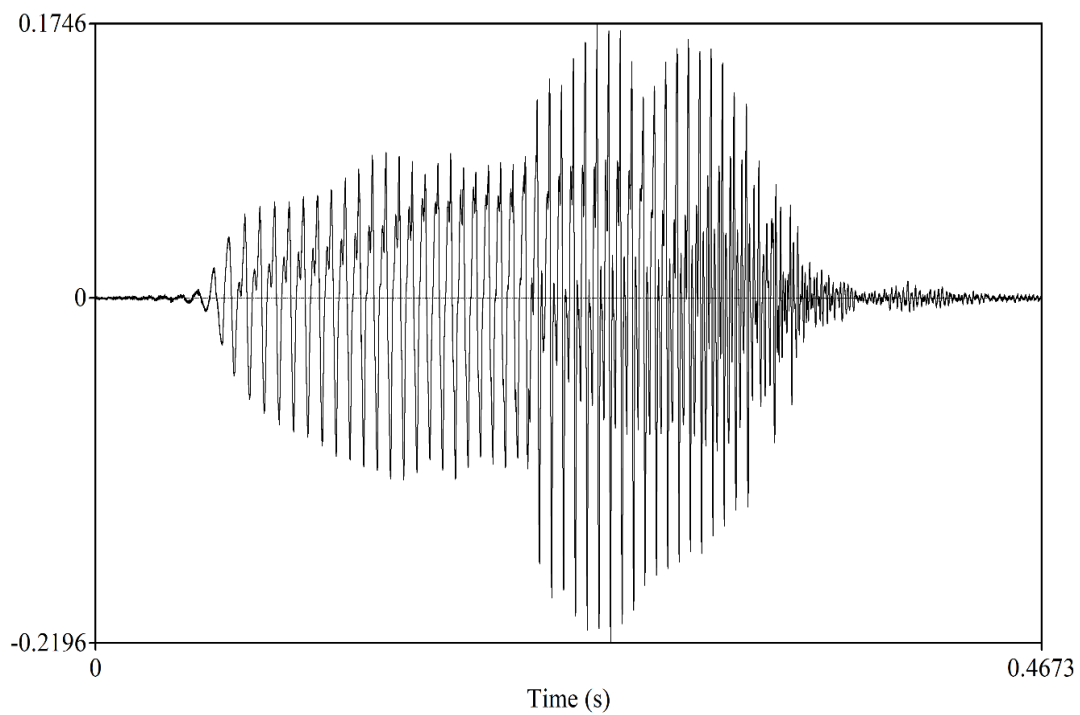
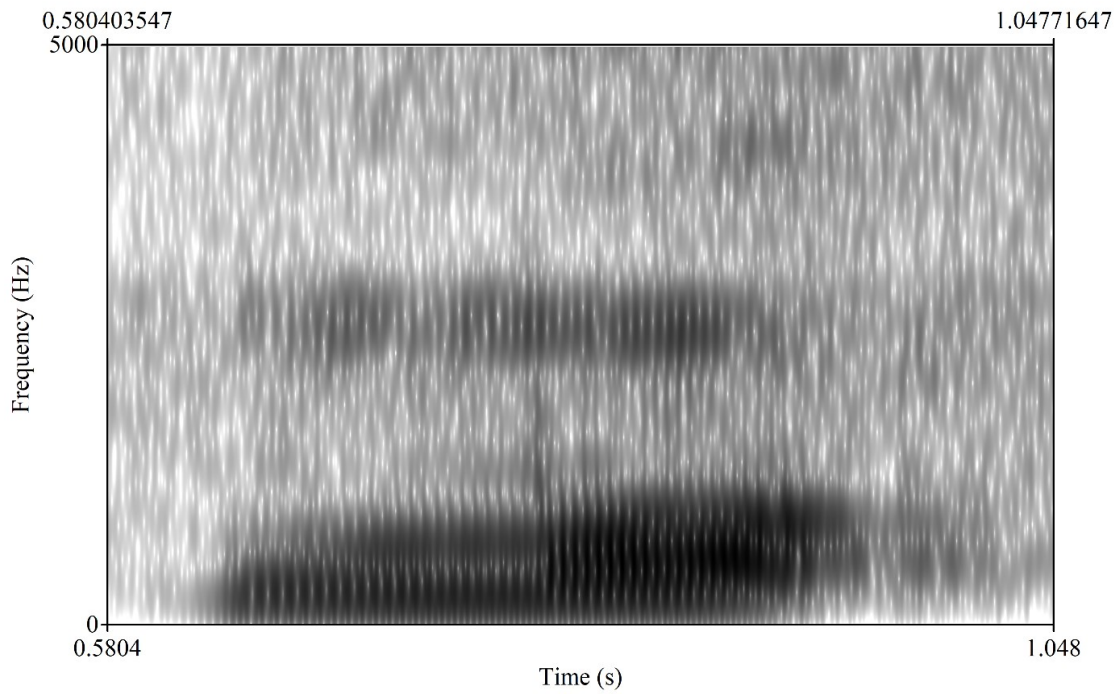


Figure 37a. A waveform of the word *mú* ‘fire’



*Figure 37b. A spectrogram of the word *mú* ‘fire’*

#### 2.2.4.2 Alveolar nasal [n]

The alveolar nasal [n] is sometimes realized interdental. Figures 38a-38b illustrate the alveolar nasal.

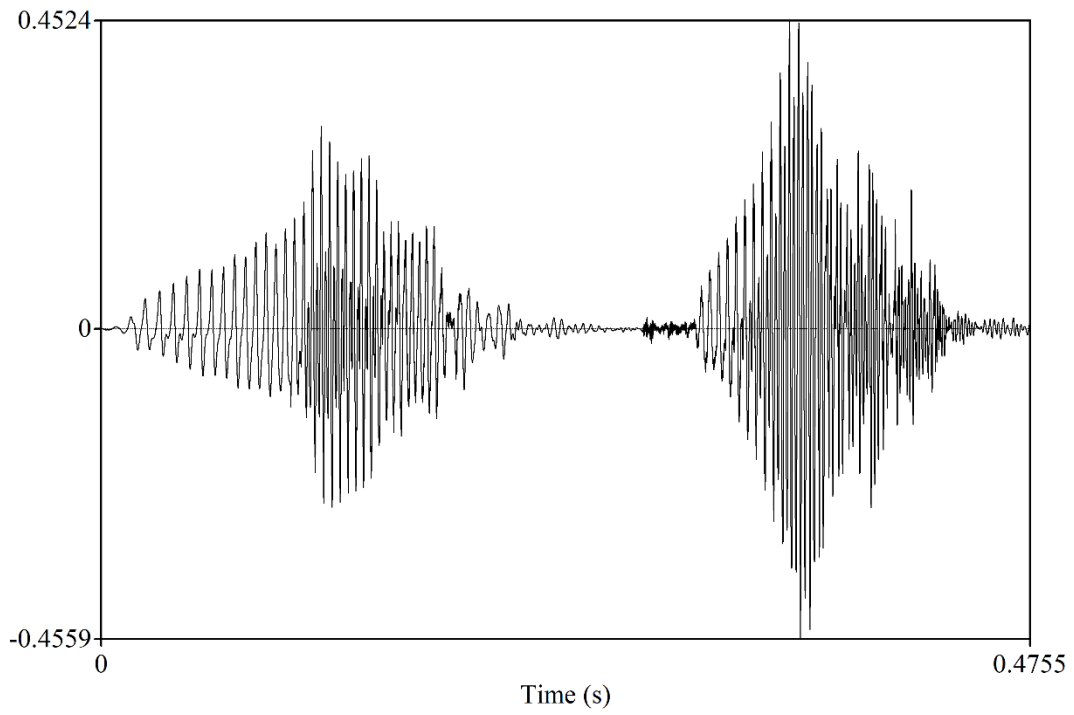


Figure 38a. A waveform of the word *niky* 'ear'

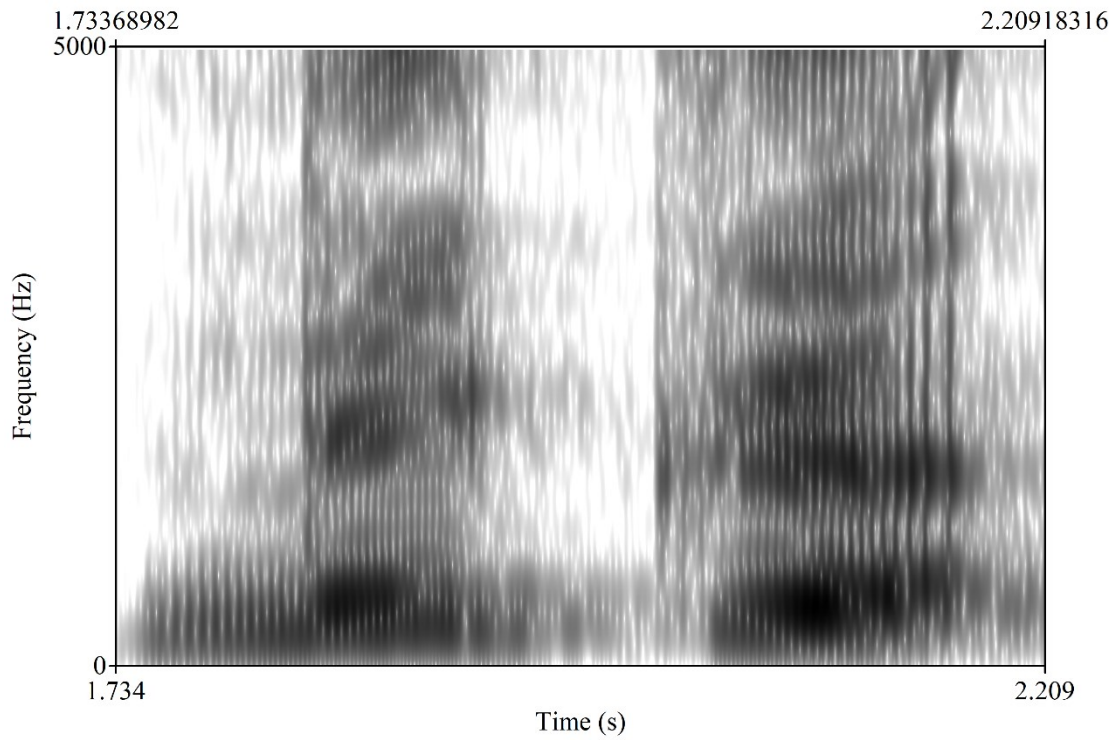


Figure 38b. A waveform of the word *niky* 'ear'

### 2.2.4.3 Velar nasal [ŋ]

The velar nasal occurs word internally in certain composite forms such as *mùŋkǎ* ‘sky’, *mùŋxwá* ‘nighttime’.

### **Loanword phonology**

Chinese loanwords with [m] are borrowed as such. Thus [maw<sup>21</sup>] < 毛 *máo* ‘feather’.

Chinese loans with [n] are complicated by confusion of [n] and [l] in Sichuanese (see below).

Some forms with [j] <y> in Mandarin, but which are realized as [nj] in Sichuanese, are borrowed in the Sichuanese fashion. Thus, [njǎ<sup>21</sup>wǎ<sup>21</sup>] ‘king of hell’ < Sichuanese [njǎ<sup>21</sup>wǎ<sup>21</sup>], cf. Mandarin Chinese 阎王 *yánwáng* ‘king of hell’.<sup>33</sup>

For example, the Chinese exonym 羌 *qiāng* ‘Qiang’ is pronounced [te<sup>h</sup>ǎ<sup>45</sup>] as opposed to [te<sup>h</sup>aj<sup>45</sup>]. Because of the phonotactic requirement that nasals, even word internal nasal, be homorganic with the following consonants. Thus, Chinese loanwords forms with velar nasal codas, such as 忙 *máng* ‘to be busy’, have alveolar nasals in Qiang *màn-t<sup>h</sup>á* ‘to be busy’ due to the alveolar ‘loanword marking suffix’ [-t<sup>h</sup>à ~ t<sup>h</sup>á].

### **2.2.5 Laterals**

There are two alveolar lateral consonants: [l] and [ɬ]. Voiceless lateral fricatives are uncommon cross-linguistically, but are fairly common in Himalayan languages of Sichuan.

The voiceless lateral has an initial turbulent phase followed by a short, voiced release. Thus,

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<sup>33</sup> This term is a translation of Sanskrit यम राज *Yama raja* ‘King of Hell’.

/hú/ ‘hawk’ is phonetically [hú]. The voiceless alveolar lateral fricative occurs in a relatively small number of constructions. Minimal sets are given in Table 16.

<i>Form</i>	<i>Gloss</i>
lá	‘flower’
łá	‘to slip’
lí	‘plow’
-lí	‘month’
lǎ	‘to be warm (of weather)’
łǎ	‘mountain peak’

Table 19. Minimal pairs for lateral consonants

### ***Illustrations***

#### *2.2.5.1 Voiced lateral [l]*

The voiced lateral is sometimes produced at the alveolar ridge and sometimes produced interdentially. Figures 39a-b illustrate this phoneme with the form *lápà* ‘flower’.



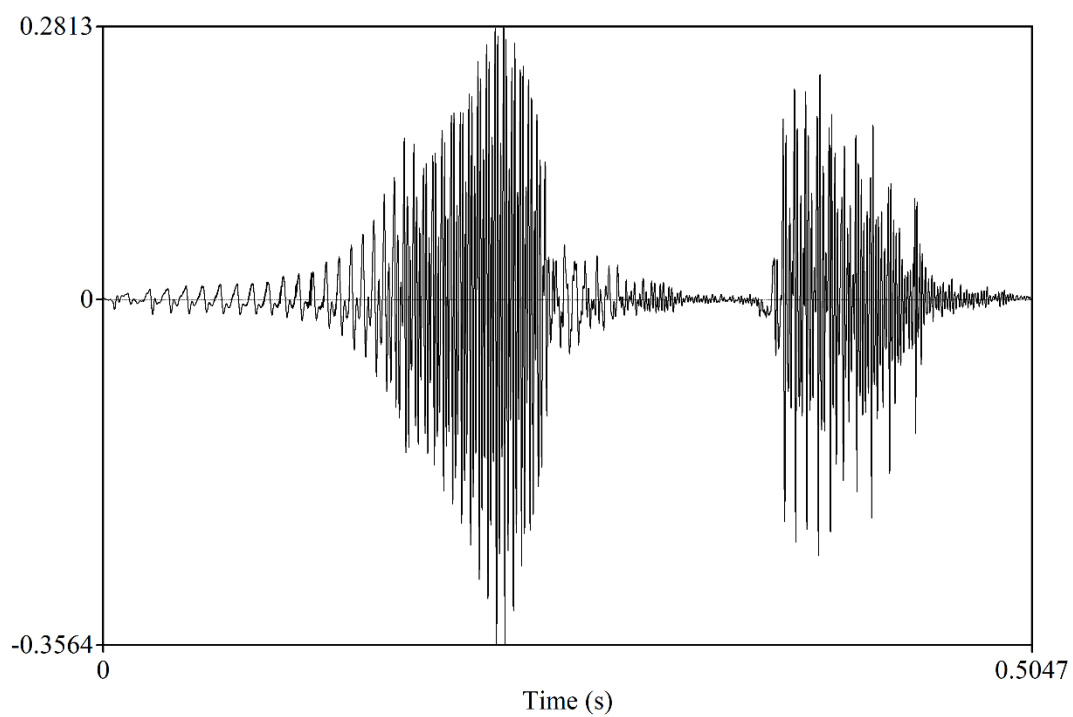


Figure 39a. A waveform of the word *lápà* ‘flower’

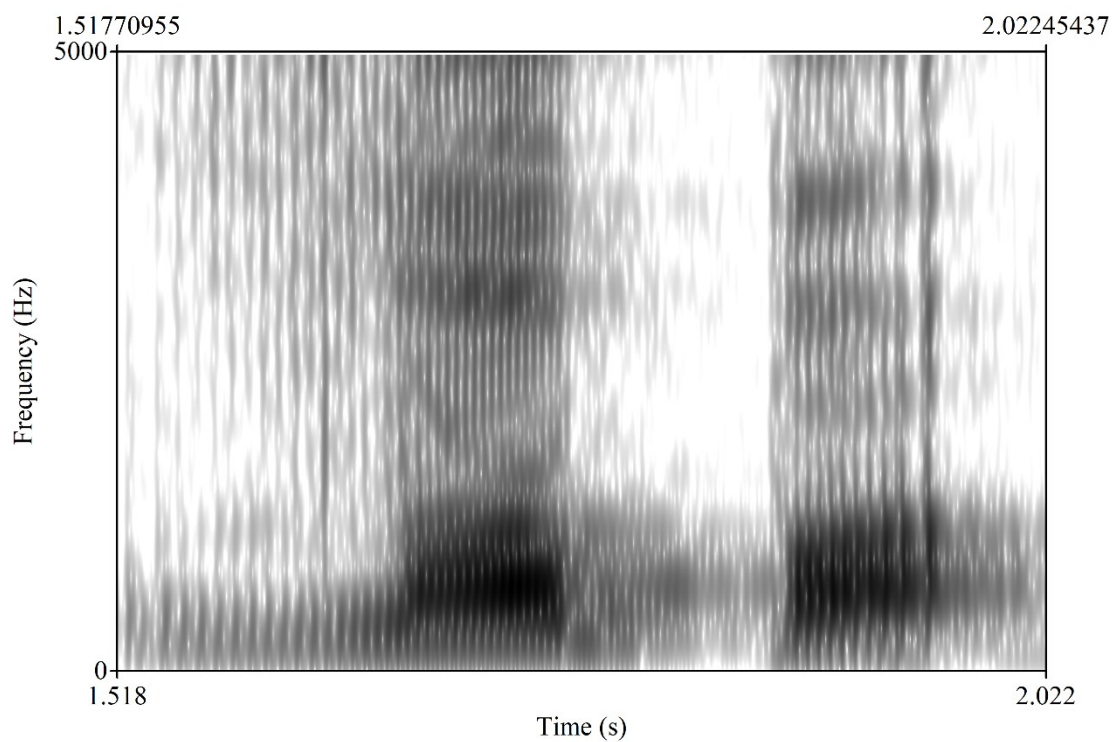
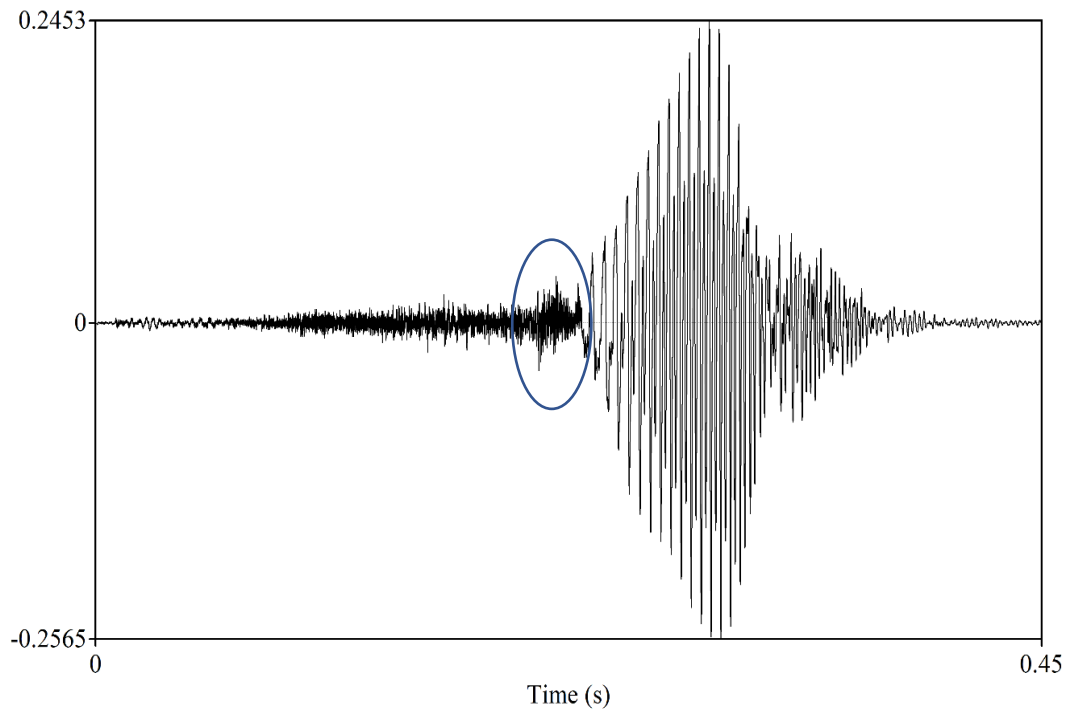


Figure 39b. A spectrogram of the word *lápà* ‘flower’

### 2.2.5.2 Voiceless lateral fricative [ɬ]

The voiceless lateral illustrated in the wave form and spectrogram in Figures 40a-40b. The burst-release has been circled on both the waveform and the spectrogram.



*Figure 40a.* A waveform of the word *hú* ‘hawk’

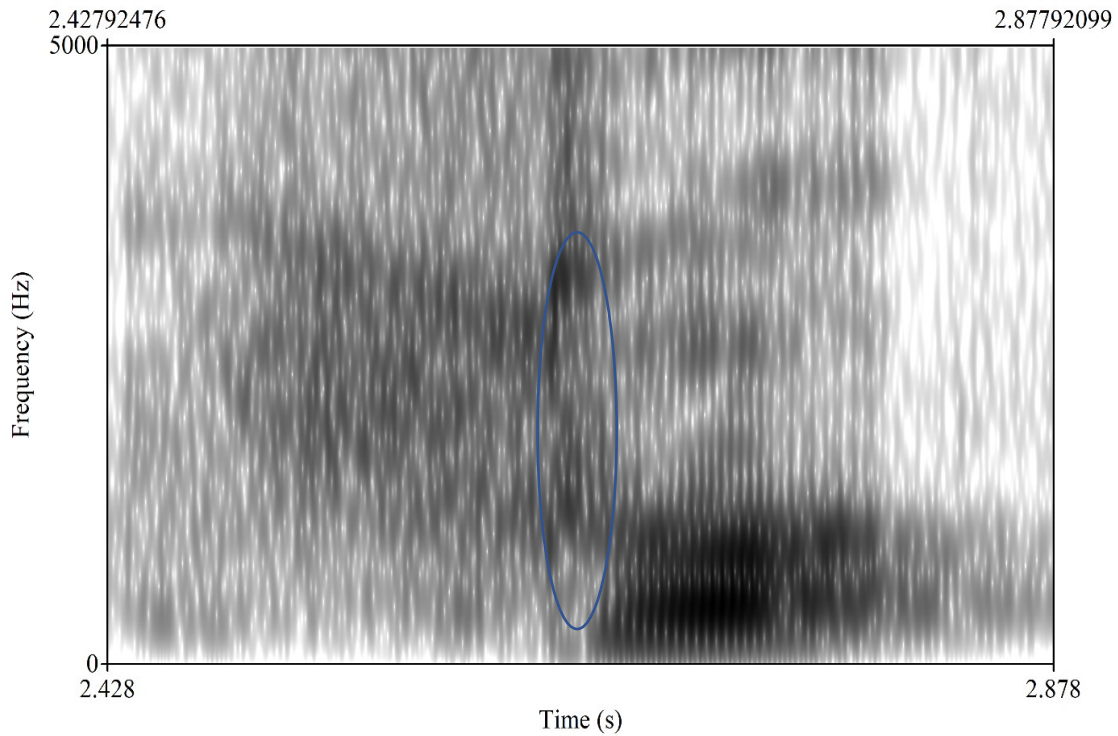


Figure 40b. A spectrogram of the word *lú* ‘hawk’

The correspondences for the lateral consonants are complex and cannot be treated in full here.

### Loanword phonology

Loanwords from Chinese with the voiced alveolar lateral initial [l] (*pinyin* <ㄌ>) are borrowed as such. Thus [lo<sup>21</sup>hã<sup>213</sup>] < 羅漢 *luóhàn* ‘arhat’.<sup>34</sup>

Confusion of initial [l] and [n] is a classic characteristic of Sichuanese varieties. It is more common following low vowels than high vowels. See Koffi (2019) for a phonetically motivated account for the confusion of [n] and [l] in Sinitic. Inability to distinguish [l] as

<sup>34</sup> This is a Buddhist term which is an abbreviation of 阿羅漢 *āluóhàn*. This term is ultimately from < Sanskrit अर्हत् *arhat*.

separate from [n] is common among younger speakers, and is likely due to influence from Sichuanese Mandarin.

Southwestern Mandarin does not have voiceless alveolar laterals. The voiceless lateral is realized by younger speakers as [h]. Thus, this sound has been debuccalized, possibly under the influence of Sichuanese.

### 2.2.6 Glides

There are two glides /w/ and /j/.

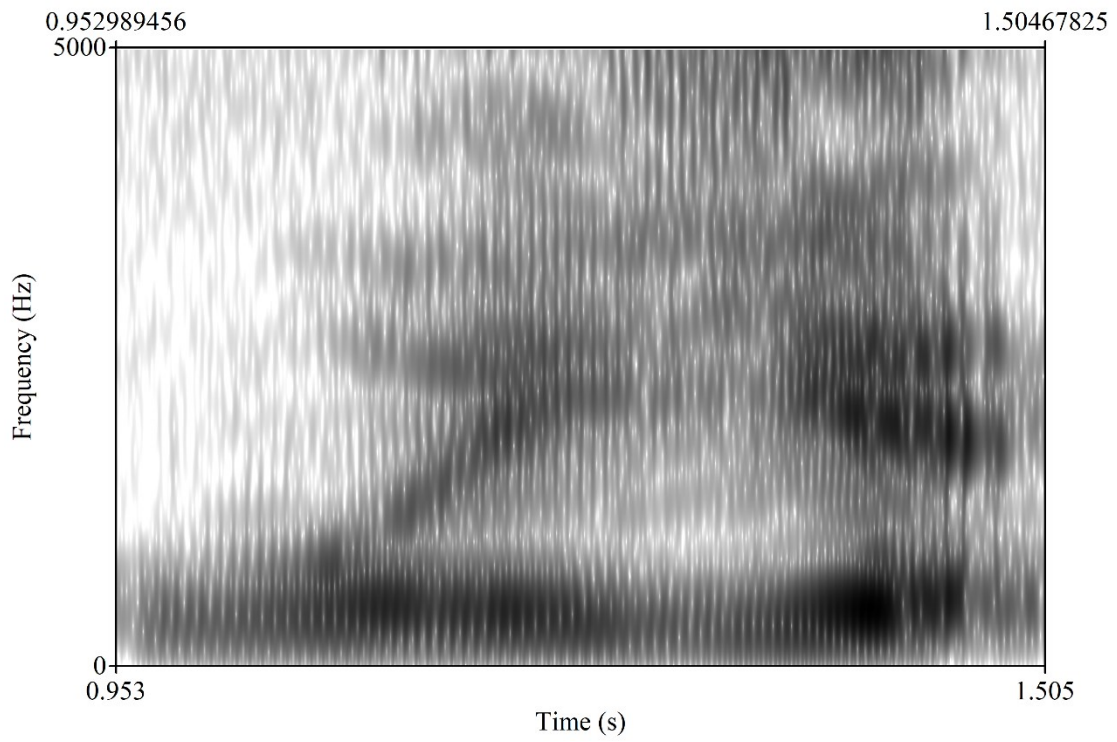
#### *Minimally contrastive sets*

A minimal set for the glides is given in Table 20.

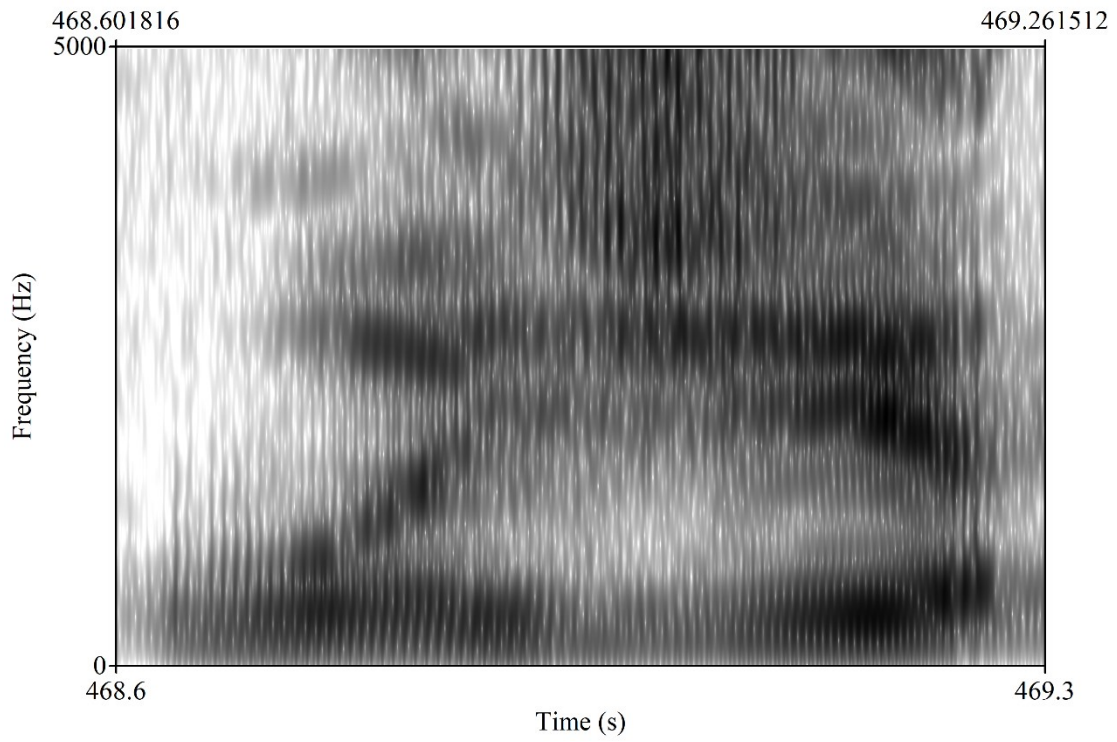
<i>Form</i>	<i>Gloss</i>
wǎ	‘to be late’
jǎ	‘cliff’

Table 20. Minimal sets for the glides

Note that the palatal glide [j] may be slightly fricated, but still contrasts with alveolar palatal fricative [ʒ] in careful speech. The forms [wùjǐ] ‘bird’ and [wùzǐ] ‘a toponym’ constitute a minimal pair. Figures 41a-41b give spectrograms for [wùjǐ] and [wùzǐ] respectively.



*Figure 41a.* A spectrogram of the word *wùjī* 'bird'



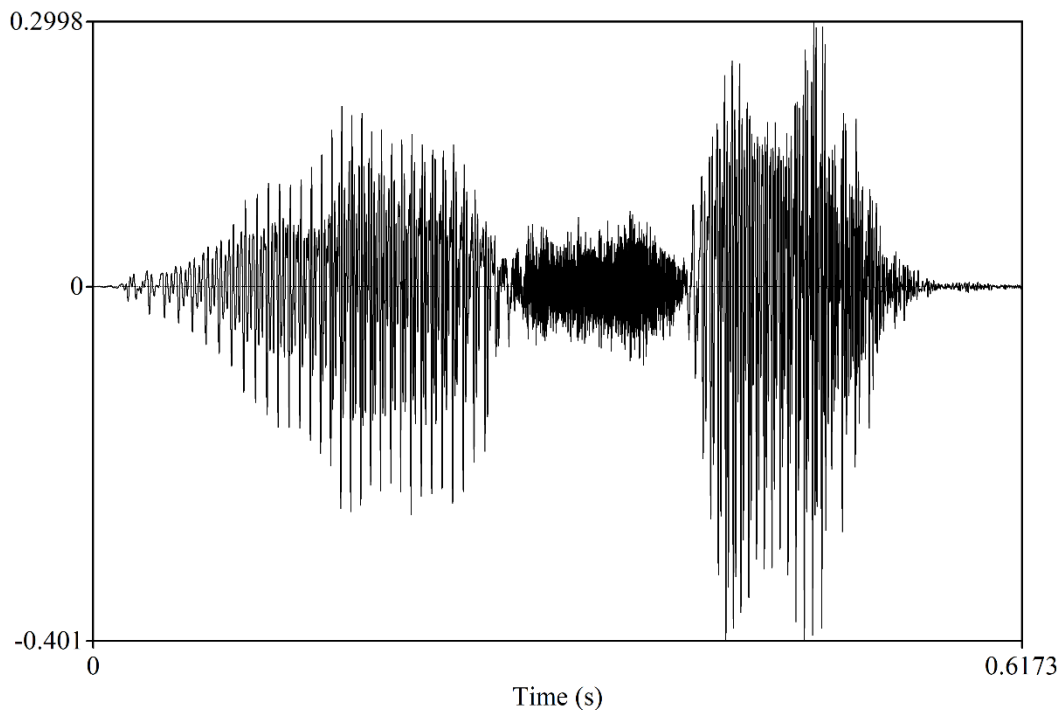
*Figure 41b.* A spectrogram for *wùzǐ* 'a local toponym'

## *Illustrations*

### *2.2.6.1 [w]*

The labio-velar glide /w/ has an allophone [ɥ] before front vowels. Thus /we/ ‘to exist (of an immobile entity) is phonetically [ɥe].<sup>35</sup>

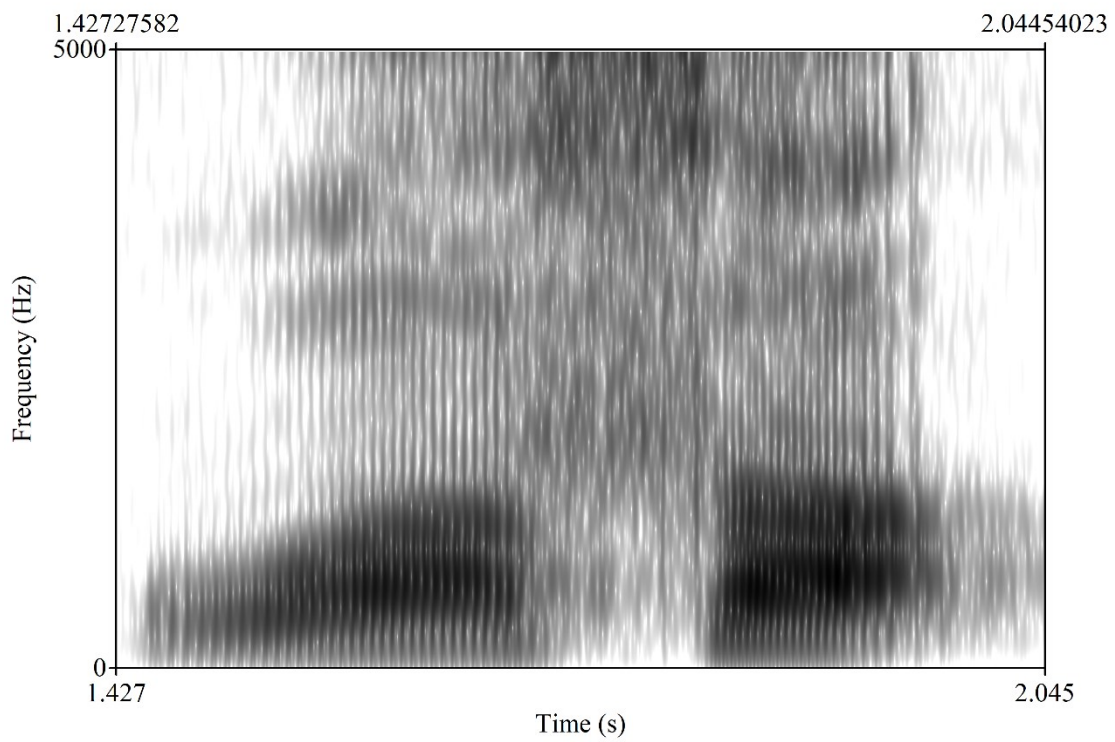
Figures 42a-42b illustrate the labio-velar glide in onset position with the form *wàsá* ‘monkey’.



*Figure 42a. A waveform of the word wàsá ‘monkey’*

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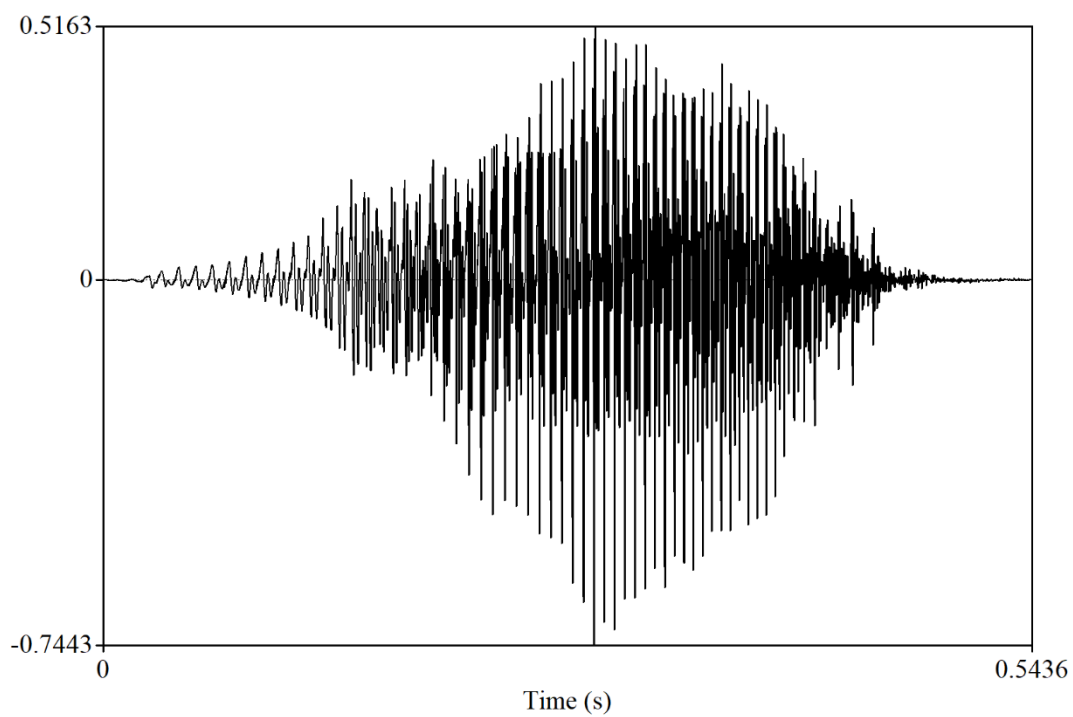
<sup>35</sup> The phonological status of glides in Qiang is a complicated issue which has been addressed variously (see Sun H. 1981; J. Sun 2003; Evans & Sun 2013). This dissertation follows the approach of J. Sun and Evans & Sun in treating onglides as consonant+glide (CG) sequences. See Evans & Huang (2007) for more on this issue. Treating the onglides as CG sequences is somewhat arbitrary but it does avoid complicating the already large onset inventory considerably. At any rate, this issue is not crucial to understanding the verb complex, and will be left for future work to further unravel.



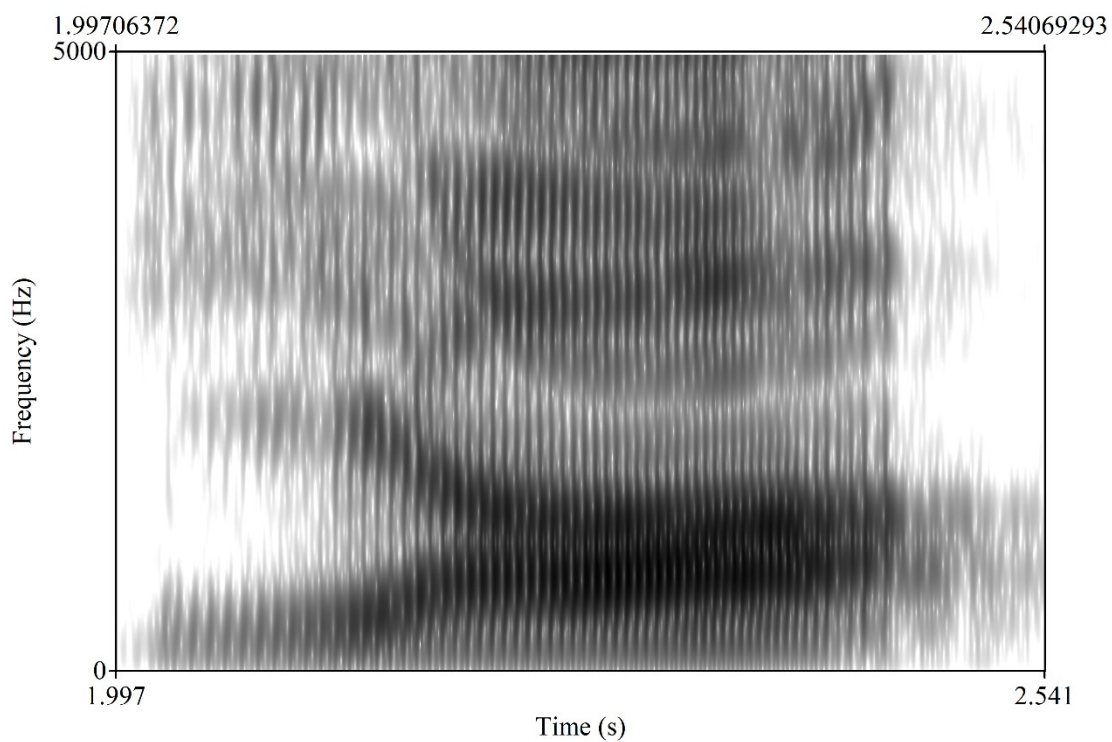
*Figure 42b.* A spectrogram of the word *wàsá* ‘monkey’

#### 2.2.6.2 [j]

Figures 43a-43b illustrate the palatal glide in onset position with the form *jǎ* ‘cliff’.



*Figure 43a.* A waveform of the word *jǎ* ‘cliff’



*Figure 43b.* A spectrogram of the word *jǎ* ‘cliff’



### *Loanword phonology*

Loanwords from Sichuanese with [w] and [j] and [ɥ] initials are borrowed as such. Thus, [jã<sup>45</sup>] ‘smoke’ < 烟 *yān* ‘smoke’ and [ɥã<sup>21</sup>] ‘to be round’ < 圆 *yuán* ‘round’. Lastly, [wa<sup>21</sup>wa<sup>21</sup>] ‘child’ < 娃娃 *wáwá* ‘child’.

## **2.3 Vowels**

This section provides an analysis of the vowel system, including the oral, rhotic, and nasalized vowels as well as one diphthong.

### **2.3.1 Oral vowels**

The Yonghe vowel system has eight oral vowels positions: /a/, /æ/, /e/, /i/, /o/, /u/, /ʌ/, /y/.<sup>36</sup>

An example minimal set for these vowels is given in Table 21.

#### *Minimally contrastive sets*

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<sup>36</sup> The two mid vowels are phonetically closer to [ɛ] and [ɔ] respectively, but written as /e/ and /o/ for simplicity. The low back vowel is closer to [ɑ], but written as [a] for simplicity.

<i>Form</i>	<i>Gloss</i>	<i>Form</i>	<i>Gloss</i>
tí	‘bear’	t <sup>h</sup> í	‘to place’
té	‘seven’	t <sup>h</sup> é	‘to drink’
tǎe	‘to fasten’	t <sup>h</sup> ǎe	‘drink:1’
tá	‘to wear’	t <sup>h</sup> á	‘to be distant’
tó	‘classifier for flowers’	t <sup>h</sup> ó	‘classifier for land’
tá	‘to bark’	t <sup>h</sup> á	‘to embrace’
tú	‘to shoulder’	t <sup>h</sup> ú	‘lard’
tý	‘to see’	t <sup>h</sup> y	‘to freeze’

*Table 21.* Minimal pairs for showing Yonghe vowel contrasts

The following section gives a brief description of each vowel as well as illustrations of the formant values. All phonetic measurements are from recordings of words said in isolation by Mr. Yang Zhiqian.

### 2.3.1.1 /a/

The vowel [a] is a frequently occurring vowel in the native lexicon. Chinese loans with the [a] are borrowed as such. Thus, 大 dà ‘big’ is pronounced as [ta<sup>213</sup>] by Yonghe speakers.

### 2.3.1.2 /ǣ/

The vowel [ǣ] is also frequently occurring within the native lexicon. This vowel does not exhibit allophony. Local varieties of Chinese have [ǣ̃] but lack [ǣ].

### 2.3.1.3 /e/

The mid-front vowel /e/ occurs frequently in native forms. This vowel does not exhibit allophony. Chinese forms with the vowel [e] are borrowed as such. Thus, 德 dé ‘virtue’ is borrowed as [te<sup>21</sup>].

#### 2.3.1.4 /o/

The vowel /o/ occurs rather infrequently in the lexicon. Although it occurs in some unambiguously native forms, such as [pǒ] ‘snow’, most instances seem to be from Chinese loans.

#### 2.3.1.5 /ʌ/

The low-mid back unrounded vowel /ʌ/ occurs frequently in native forms.

#### 2.3.1.6 /i/

The high-front unrounded vowel /i/ occurs frequently within the native lexicon. The phoneme /i/ covers three allophones: [i], as well as the two apical vowels [ɿ] and [ɿ̚], that appear after apical dental and retroflex fricatives and affricates respectively. These three allophones are in complementary distribution. The present work treats [ɿ] as an allophone of /i/ after alveolar continuants: [s, z, ts, ts<sup>h</sup>, dz]. The vowel [ɿ̚] is treated as an allophone of /i/ after the post-alveolar continuants [ʂ, ʐ, tʂ, tʂ<sup>h</sup>, dz]. The symbols [ɿ] and [ɿ̚] are not IPA symbols but used to denote apical vowels by Sinologists. They are phonetically closer to laminal denti-alveolar voiced continuant and apical retroflex voiced continuant [z] and [ʐ] respectively. Thus, ts<sup>h</sup>i ‘salt’ and tʂ<sup>h</sup>i ‘to chase’ are phonetically [ts<sup>h</sup>ɿ ~ ts<sup>h</sup>ɿ̚] and [tʂ<sup>h</sup>ɿ̚ ~ tʂ<sup>h</sup>ɿ̚] respectively. Figure 49. gives an illustration of the vowel /i/ with the word [ts<sup>h</sup>i] ‘salt’.

Chinese forms with the vowel [i] are borrowed as such. Thus, 比 *bǐ* ‘to show with hands’ is borrowed into Yonghe Qiang as [pí-t<sup>h</sup>à].

#### 2.3.1.7 /u/

The high back rounded vowel occurs frequently in the native lexicon. This vowel does not occur after palatal consonants. That is, there are no sequences [tɕu] or [ɕu], [ju], etc.

#### 2.3.1.8 /y/

The high front rounded vowel is /y/ phonemic in Yonghe Qiang.<sup>37</sup> Phonetically, this vowel seems to occupy an intermediate space between [ɤ], [ɯ] and [ø]. The vowel /y/ does not occur after alveolar or post-alveolar continuants. Chinese forms with the vowel [y] are borrowed as such. Thus, 绿 *lǜ* ‘green’ is borrowed as [ly<sup>213</sup>].

#### 2.3.1.9 *Visualizing the vowel-space*

Measurements from monosyllabic words said in isolation by Mr. Yang Zhiqian are given in Figure 44.

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<sup>37</sup> Comparative evidence suggests that /y/ is a result of a merger between \*wi and \*ju sequences. However, since the merger is complete in Yonghe Qiang it is treated here as a full phoneme

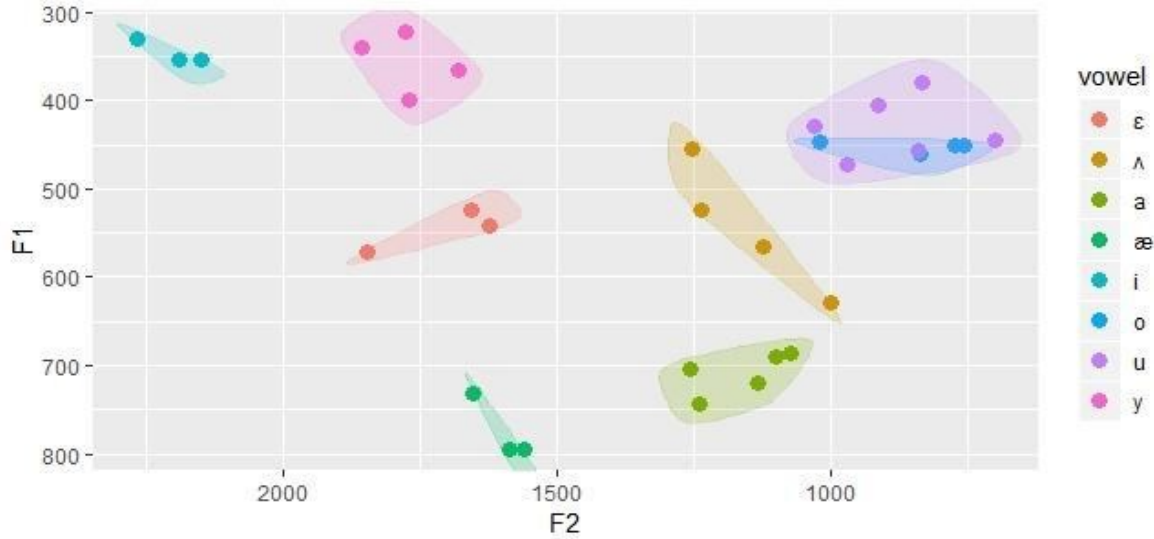


Figure 44. The vowel-space of Mr. Yang Zhiqian

Note that only the vowels [u] and [o] overlap. This is consistent with descriptions of other varieties of Qiang, such as Ronghong (LaPolla & Huang 2003: 25) which state that the contrast between /u/ and /o/ is not stable (see also Evans 2006).

### 2.3.2 Rhotic vowels

Like some other varieties of Qiang (LaPolla & Huang 2003), Yonghe contrasts oral and rhotic vowels. Yonghe Qiang retroflex vowels, are not treated as syllables with  $-ɻ$  codas for two reasons: (1) because the rhotic vowels participate in vowel harmony and (2) because an analysis of syllables such as  $k\lambda^1-j$  ‘go:PFV-EVID as CVCC would be odd because the Yonghe system does not have coda clusters. The vowels /i/, /e/, and /o/ do not have rhotic counterparts. Table 22 gives minimal pairs showing the contrast between oral and rhotic vowels.

<i>Form</i>	<i>Gloss</i>	<i>Form</i>	<i>Gloss</i>
ɛ́y	‘to study’	ɛy¹	‘to be curved’
bǎ	‘to be thick (of a cylinder)’	bǎ¹	‘to be big’
kʰǎ̀lè	‘to remove’	kʰǎ̀¹	‘uncooked rice’
mú	‘fire’	mú¹	‘to dream’
pʰǎ̀	‘a while’	pʰǎ̀¹	‘goatskin vest’

Table 22. Minimal pairs of oral and rhotic vowels.

Figure 45 illustrates the difference between [a] and [a¹] using a spectrograms of the forms *bǎ* ‘thick’ and *bǎ¹* ‘to be big’ respectively.

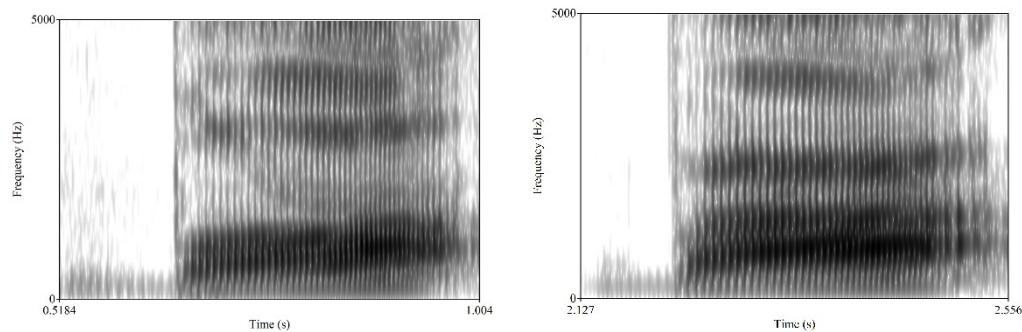


Figure 45. Spectrogram of *ba* ‘to be thick’ (left) and *ba¹* ‘to be big’ (right)

Table 23 gives measurements of six tokens of these two words; three times in isolation and three times in phrase-medial position. The most striking difference between the two groups is the lowered F3 of the rhotic vowels; between approximately 2800-3000 for the oral vowels and between 2000-2300 for the rhotic vowels.

<i>Form</i>	<i>Vowel</i>	<i>Type</i>	<i>Repetition</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>
<i>bǎ</i>	oral	Isolation	1	712	1055	2951
<i>bǎ</i>	oral	Isolation	2	729	1078	3013
<i>bǎ</i>	oral	Isolation	3	736	1072	3008
<i>bǎ</i>	oral	Phrase-medial	1	687	1058	2956
<i>bǎ</i>	oral	Phrase-medial	2	668	961	2967
<i>bǎ</i>	oral	Phrase-medial	3	701	1038	2884
<i>bǎ'</i>	rhotic	Isolation	1	808	1270	2316
<i>bǎ'</i>	rhotic	Isolation	2	797	1296	2350
<i>bǎ'</i>	rhotic	Isolation	3	770	1261	2252
<i>bǎ'</i>	rhotic	Phrase-medial	1	753	1184	2219
<i>bǎ'</i>	rhotic	Phrase-medial	2	726	1145	2129
<i>bǎ'</i>	rhotic	Phrase-medial	3	731	1129	2051

Table 23. Measurements of oral and rhotic vowels<sup>38</sup>

### 2.3.3 Nasalized vowels

Vowels may be sub-phonemically nasalized before nasals. However, as in other varieties of Qiang, native forms do not show a phonemic distinction between oral and nasal vowels.

Chinese forms with the rhyme [-aŋ] in most local varieties of Sichuanese are realized as [ǣ] in the speech of people from Yonghe Valley. Table 24 gives examples of this correspondence.

<sup>38</sup> These words were produced by Mr. Yang Zhiquan.

<i>Yonghe Valley</i>	<i>Mao County</i>	<i>Chinese</i>	<i>Pinyin</i>	<i>English Gloss</i>
[tɕ <sup>h</sup> æ̃ <sup>45</sup> ]	[tɕ <sup>h</sup> aŋ <sup>45</sup> ]	羌	qiāng	‘Qiang’
[mu <sup>213</sup> tɕæ̃ <sup>213</sup> ]	[mu <sup>213</sup> tɕaŋ <sup>213</sup> ]	木匠	mùjiàng	‘carpenter’
[tɕ <sup>h</sup> æ̃ <sup>41</sup> ]	[tɕ <sup>h</sup> aŋ <sup>41</sup> ]	抢	qiǎng	‘rob’
[jæ̃ <sup>42</sup> ɥy <sup>213</sup> ]	[jaŋ <sup>42</sup> ɥy <sup>213</sup> ]	洋芋	yángyù	‘potato’
[ljæ̃ <sup>41</sup> ]	[ljaŋ <sup>41</sup> ]	两	liǎng	‘unit of measure’
[cæ̃ <sup>41</sup> ]	[caŋ <sup>41</sup> ]	想	xiǎng	‘think’

Table 24. Forms showing the sound change [-aŋ] > [æ̃] in Yonghe Sichuanese

Vowels may also be slightly nasalized following glottals. Thus, the form /hǎ̃/ ‘grain’ is phonetically [hǎ̃<sup>135</sup>]. Similarly, the form /ʔu/ ‘you’ is phonetically [ʔũ]. Here within, vowel nasalization will be marked for Chinese loans but unmarked on Qiang forms.

### 2.3.4 Diphthongs

Most of the complex vowel sounds in Yonghe Qiang can be accounted for as combinations of vowels and glides. For example, the verb ‘to sell’ is transcribed as [x<sup>w</sup>á] rather than [xuá]. There is, however, at least one diphthong which cannot be analyzed as a secondary articulation and is something of an outlier within the system as a whole. This sound has a clear biphasal quality where the first component is close to [ɪ] but the second part moves toward a lower quality like that of a centralized epsilon. I represent this sound as /ie/. Figures 46a-46b give a waveform and spectrogram of this form using the form *bǐe* ‘urine’.



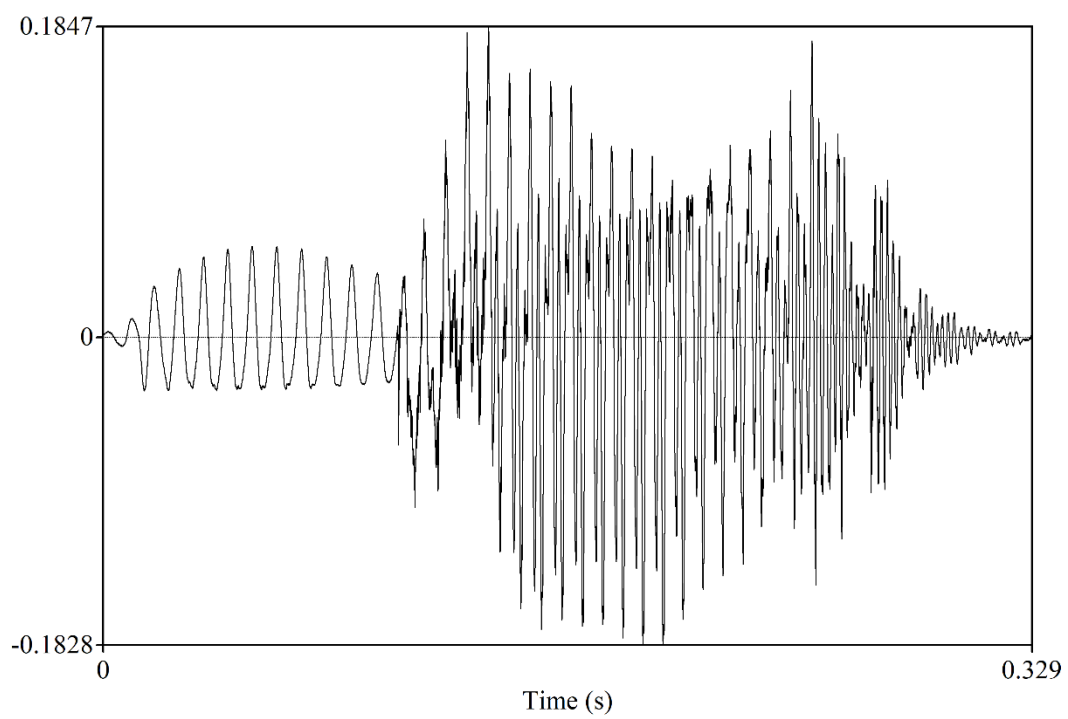


Figure 46a. A waveform of the word *bīe* ‘urine’

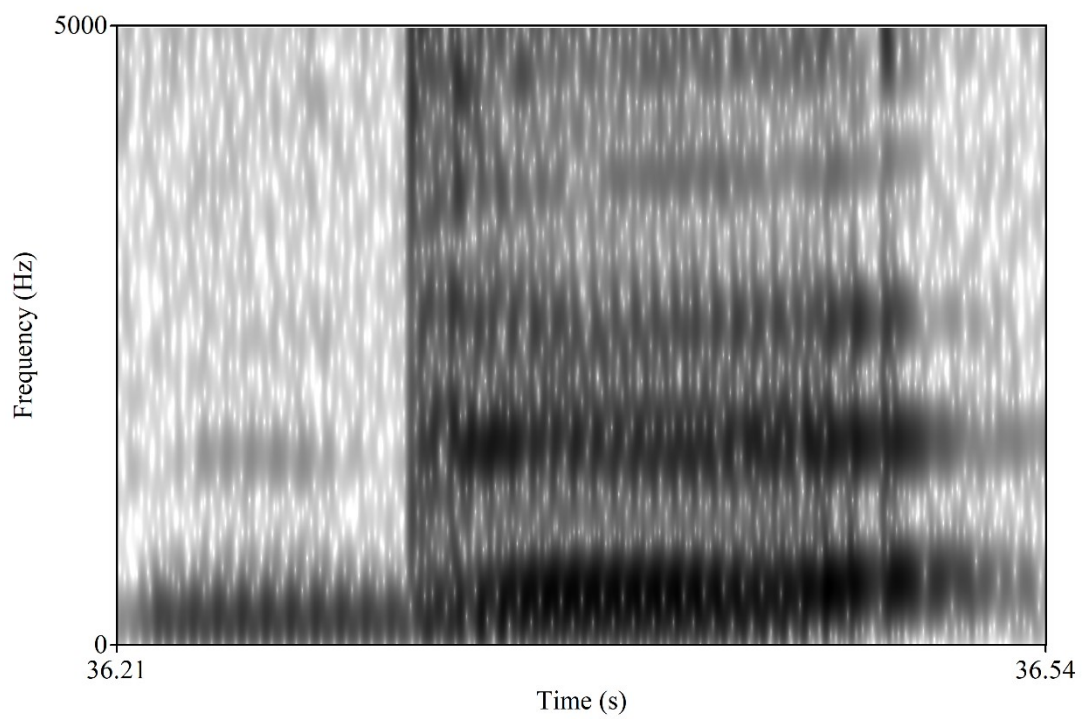


Figure 46b. A spectrogram of the word *bīe* ‘urine’

This sound is rare within the data collected thus far. An exhaustive list of words with this form is given in Table 25.<sup>39</sup>

<i>Form</i>	<i>Gloss</i>
bĭe	‘urine’
pĭe	‘father’
ĥĭe	‘moon’
mĭe	‘person’
tsĭe	‘to stab’

Table 25. A list of forms with the [ie] diphthong

## 2.4 Syllable structure

Tibeto-Burman languages of NW Sichuan have relatively large consonantal inventories and syllable canons. The Rgyalrongic languages spoken in the region have some of the largest inventories of consonant clusters in the family. For example, Khroskyabs has over 300 unique onsets (Lai 2017). The Wobzi variety of Khroskyabs has a syllable canon of (CCCC)C(M)VC (Lai 2017). M here refers to the medials: j-, v-, ɣ-, r-, and l-. Table 26 gives a list of the seven types of consonants clusters found in Wobzi Khroskyabs.

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<sup>39</sup> Interestingly, for the forms with corresponding words in Tangut, the Tangut forms have been reconstructed as having an on-glide. Thus, 𐰇 lhji 2.60 ‘moon’ 𐰇 bji 1.67 ‘urine’. More work is required to untangle the origins of this diphthong in Yonghe Qiang.

<i>Category</i>		<i>Example</i>
Type I	sonorant + obstruent	rp-, lb-, ŋk-, vd-, etc.
Type II	sibilant preinitial + initial	sp-, zd-, sm-, zv-, etc.
Type III	initial + medial	qr, gl-, bj, tv, etc.
Type IV	double preinitial+initial	nvs-, nvts-, ʁmn-, ʁsm-, ʁvdz-, ʁne-, ʁsc-, etc.
Type V	sonorant preinitial + initial+medial	mbr-, ʁbr-, mp <sup>h</sup> r, ʁp <sup>h</sup> r, rp <sup>h</sup> j, ʁp <sup>h</sup> j, ʁsj-, ʁsr-, vgr-, etc.
Type VI	sibilant preinitial+initial+medial	zbj-, zgr-, skr-, sk <sup>h</sup> r-, sk <sup>h</sup> l, sp <sup>h</sup> j-, sq <sup>h</sup> r-, etc.
Type VII	double pre-initial+initial+medial	jmbj-

*Table 26. Consonant clusters in Wobzi Khroskyabs (adapted from Lai 2017)*

Compared to many languages of the region, and even compared to more conservative varieties of Qiang, Yonghe Qiang has a relatively simple syllable canon. The maximal syllable for the more conservative Mawo variety is (C)C(G)V(C)(C). The maximal syllable for the Yonghe variety is: C(G)V(N/G). That is, an obligatory onset optionally followed by an on-glide, [w] or [j], followed by a vowel and optionally a nasal coda or an off-glide, but never both. Nasal codas only occur in loans from Chinese and only occur word-internally. Example of forms with different syllable types are given in Table 27.

<i>Type</i>	<i>Yonghe</i>	<i>Structure</i>	<i>Gloss</i>
I	xá	CV	‘to be free’
II	xwá	CGV	‘to sell’
III	xánt <sup>h</sup> à	CGVN	‘to call’ <sup>40</sup>
IV	xwánt <sup>h</sup> à	CGVN	‘to exchange’ <sup>41</sup>
V	xwá-j	CGVG	‘sell-EVID’

Table 27. Syllable types in Yonghe Qiang

### 2.4.1 Old Codas

Like other varieties of Qiang (Benedict 1983, Liu 1998, LaPolla & Huang 2003) Yonghe Qiang has lost the consonant codas of Proto-Tibeto-Burman (cf. Hill 2019a). In Yonghe, the loss of codas has yielded a tonal split, with obstruent codas inducing low tones and resonant codas yielding high tones. This will be explored further in the section on tonal phonology.

Unlike Pumi varieties, which have nasalized vowels as a reflex of nasal codas, (Ding 2014, Daudey 2014b), Jacques (2014), Qiang nasal codas were either lost without compensatory nasalization, or the compensatory nasalization was lost after it developed. That is, there is no reliable reflex of Proto-Tibeto-Burman nasal codas in Yonghe Qiang. This is part of a more widespread tendency to lose nasals in the development of Qiang phonology (Huang B. 1987).

### 2.4.2 New codas

<sup>40</sup> This is a borrowing from Chinese 喊 *hàn* ‘to call’.

<sup>41</sup> This is a borrowing from Chinese 换 *huàn* ‘to exchange’.

In northern western varieties of Qiang, secondary codas have developed from syllable coalescence (Sun H. 1981; Liu 1998). In varieties such as Ronghong, syllable coalescence has yielded complex codas in words such as [laxʂ] ‘palm’ < /la/ ‘hand’ + /kʂe/ ‘side’ (LaPolla & Huang 2003: 28). Yonghe has not developed codas in this way. Though, some speakers do completely devoice the vowels of secondary elements within disyllabic compounds, whereas others only slightly devoice the unstressed vowel. Most speakers realize the unstressed vowel in careful speech. For this study, I have chosen to represent these forms with full vowels, even though the unstressed form may be slightly shorter and more phonetically reduced than the unstressed vowel.

Earlier work has stated that all Yonghe syllables are open (Sims 2016). This is not entirely accurate. Nasal codas occur word-internally on a very small number of lexical items such as *lèŋgý* ‘wax candle’, and some compounded forms such as *hǎn-dzí* ‘to graze (of a horse); < *hǎn* ‘grass’ + *dzí* ‘eat’. Nasals may occur word-internally in reduplicated Chinese loans. For example, *zikà-teàntéá* ‘tip of the tongue’ < Chinese 舌尖 *shéjiān* ‘tongue-tip’, but not \**zikà-teàntécén*. Nasal codas may also occur in syllable coalescence of a morphological origin. For the example, the Yonghe second person singular marker [-ní ~ ni], shown in example (3) can be realized as [-n] or as [-m] depending on the environment.

- (3) ʔú ká=j mǎ-zǎ-ní  
 2S 1S=PAT NEG-be.superior-2S  
 ‘You aren’t better than me.’

Example (4) shows the /-ni/ suffix reduced to [-n].

- (4) ʔú miè-wú-n  
 2S person-COP-2S

‘You’re a human’

The same second person marker can be pronounced as [-m] when it occurs before bilabial obstruents, as in the following examples (5-7).

- (5) xý            ʔà-tʂwá-kú-mbǒ  
thief            ORT:in-catch-AM:go:APPL-2S:POL  
‘(you) go and catch those bandits for’em.
- (6) ʔè-jé-m-bǒ  
ORT:in-arrive-2-POL  
‘(you) come in and sit down!’
- (7) mu<sup>h</sup>ba<sup>t</sup>      ʔú      hè-lý-m-bǒ”                      ji-la  
god            2S      ORT:out-come-2-POL                  say-COND  
‘If (you) said, “God, you come out!” then,

Lexical forms with off-glides, such as *děj* ‘beancurd’ and *dàwts<sup>h</sup>á* ‘onion’, are rare.<sup>42</sup>

However, there are bound morphemes which consist of [w] and [j], respectively.

For example, the palatal off-glide occurs often in the form of the Verb-final epistemic suffix -j discussed in Chapter 6. This suffix is illustrated in (8). The first line of the example shows the syllable boundaries. The second line shows morpheme boundaries.

- (8) [zú.lì.kì                      hλ<sup>t</sup>.kλ<sup>t</sup>j]  
/zú-lì-kì                      hλ<sup>t</sup>-kλ<sup>t</sup>-j/  
earth-plow-AM:go ORT:out-go.PFV-EVID  
‘(He) went to go to plow the earth’

---

<sup>42</sup> The etymologies of these forms are unclear, but it seems likely that these originated from syllable coalescence.

The labial off-glide [w] occurs as a vocative marker for kinship terms. Thus, [mǎ̃] ‘mother’ vs. [mǎ̃w] ‘oh mother!’.<sup>43</sup>

### 2.4.3 Issues of analysis for the labialized consonants

In Yonghe, there is clearly a contrast between plain and labialized onsets. Thus, [t<sup>h</sup>á] ‘to be far’ vs. [t<sup>hw</sup>á ~ t<sup>h</sup>wá] ‘CLF:pile of snow’. Table 28 shows the consonants of Yonge Qiang. Sounds which can have labialization are marked in blue whereas those with no labialization are marked in grey. Glottals are marked with yellow because, while there is [h<sup>w</sup>], there is no sound [h<sup>w̃</sup>]. There are several ways in which this might be analyzed, and several factors must be considered.

	<i>Bilabial</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>(Alveolo-)palatal</i>	<i>Velar</i>	<i>Glottal</i>
<i>Obstruents</i>	p, p <sup>h</sup> , b	t, t <sup>h</sup> , d			k, k <sup>h</sup> , g	
<i>Affricates</i>		ts, ts <sup>h</sup> , dz	tʂ, tʂ <sup>h</sup> , dʂ	tɕ, tɕ <sup>h</sup> , dʒ		
<i>Fricatives</i>	ɸ, β	s, z	ʂ, ʐ	ɕ, ʒ	x, ɣ	h, h̃
<i>Nasals</i>	m	n				
<i>Laterals</i>		l, l̃				
<i>Approximants</i>	w			j		

Table 28. Labialized onsets in Yonghe Qiang

Firstly, the labialization occurs at the beginning of the closure of the consonant. That is, the transcription [t<sup>hw</sup>á] better captures the phonetic reality of these sounds than does [t<sup>h</sup>wá].

Secondly, there are no labialized bilabials. The absence of these sounds is more easily

<sup>43</sup> This can be applied to kinship terms of Chinese origin as well. Thus [tanjǎ̃] ‘father’s older brother’s wife’ vs. [ta.njǎ̃w] ‘father’s older brother’s wife:VOC’.

explained if the labialization is treated as a secondary articulation than as a sequence of consonant + glide. Thirdly, apart from restrictions on labialized bilabials, there also appears to be a restriction on labialized nasals, laterals, and approximants. Lastly, there are no labialized palatal sounds.

In summary, these are best treated as onsets with secondary labialization. In order to avoid adding 23 new consonants to an already large consonant inventory, these will be written as [Cw] as there is no meaningful difference between [C<sup>w</sup>] and [Cw].

#### 2.4.4 Issues of analysis for palatalized consonants

Yonghe has some onsets for which palatalization is contrastive. Thus, [ka] ‘I’ vs. [k<sup>j</sup>a ~ kja] ‘thus, such’. The evidence for palatalized consonants as a distinct subset of consonants is less robust than that involving labialization.

For the bilabials, we find [p<sup>j</sup>] only in loans from Chinese. The sound [p<sup>hj</sup>] occurs only in sound symbolic forms, such as [p<sup>hj</sup>á.p<sup>hj</sup>á] ‘the sound of a slap’. We find no instances of [b<sup>j</sup>].

The clearest cases involve the alveolar stops. There is an obvious contrast between [tá] ‘to wear a hat’, [t<sup>j</sup>á] ‘CLF:one bit’, and [teà] ‘question marking suffix’. In some cases, the palatalization is of a morphological origin. For example, the verb ‘to bring’ is [t<sup>h</sup>i]. The first-person form of the same verb is [t<sup>hj</sup>æ̃].

For the velar stops, a contrast between [ka] and [k<sup>j</sup>a] is evident (see above). For the aspirated and voiced velar stops, palatalization occurs optionally before front vowels. That is, there is no meaningful distinction between [k<sup>h</sup>æ̃] and [k<sup>hj</sup>æ̃] or between [gæ̃] and [g<sup>j</sup>æ̃].



The palatalized bilabial nasal only occurs in loans from Chinese. Thus [mjæ<sup>213</sup>xwa<sup>45</sup>] ‘cotton’ < Chinese 棉花 *miánhuā* ‘cotton’. The alveolar nasal has a contrast between plain and palatalized. Thus, *né* ‘here! take this!’, vs. *n’é* ‘brain’. The palatalized voiced alveolar lateral occurs only in loans from Chinese. Thus, [law<sup>51</sup>] ‘old’ < 老 *lao* old [lʰaw<sup>21</sup>] < Chinese 了 *liao* ‘perfective marker’. There are no palatalized voiceless alveolar laterals. The dorsal fricatives do not have palatalized counterparts.

Table 29 shows the consonants of Yonghe Qiang. Sounds that can be palatalized are marked in blue whereas those with no labialization are marked in grey. Types of sounds with mixed situations or for which palatalization only occurs in loans are marked in yellow.

	<i>Bilabial</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>(Alveolo-)palatal</i>	<i>Velar</i>	<i>Glottal</i>
<i>Obstruents</i>	p, p <sup>h</sup> , b	t, t <sup>h</sup> , d			k, k <sup>h</sup> , g	
<i>Affricates</i>		ts, ts <sup>h</sup> , dz	tʂ, tʂ <sup>h</sup> , dzʂ	tɕ, tɕ <sup>h</sup> , dzɕ		
<i>Fricatives</i>	ɸ, β	s, z	ʂ, ʐ	ɕ, ʑ	x, ɣ	h, ɦ
<i>Nasals</i>	m	n				
<i>Laterals</i>		l, l̥				
<i>Approximants</i>	w			j		

Table 29. Palatalized onsets in Yonghe Qiang

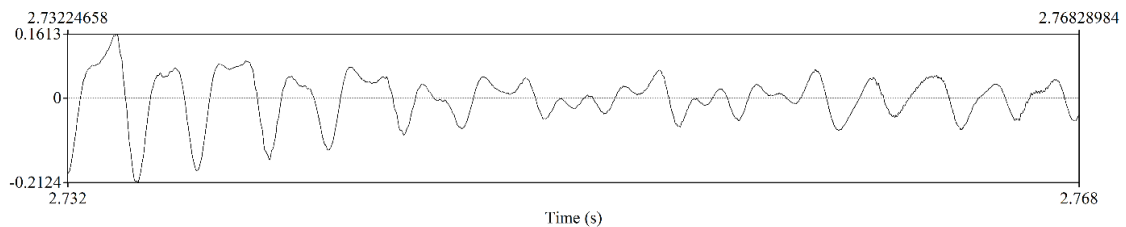
Note that it is tempting to treat the alveoleplatal affricates and fricatives as palatalized counterparts of the alveolar or retroflex affricates and fricatives. But there is an indeterminacy as to whether a given alveolar palatal fricative is a palatalized alveolar or retroflex segment.

Because there is no meaningful difference between C<sup>j</sup> and C<sub>j</sub>, these palatalized onsets will be written with a full glide rather than a superscript [j].

#### 2.4.5 Utterance-final glottalization

Forms uttered in isolation are realized with significant glottalization and sometimes with a full glottal stop at the end. This glottalization is treated here as an utterance-level phenomenon. Syllables in isolation have both word-level and utterance-level properties.

Figures 47a-49b compare the realization of the word /hú/ ‘hawk’ in both utterance-final and utterance-medial position. The utterance medial position is within the carrier phrase [kà hú tà-zitã] ‘I said hawk’. Notice the increased glottalization of the form in isolation.



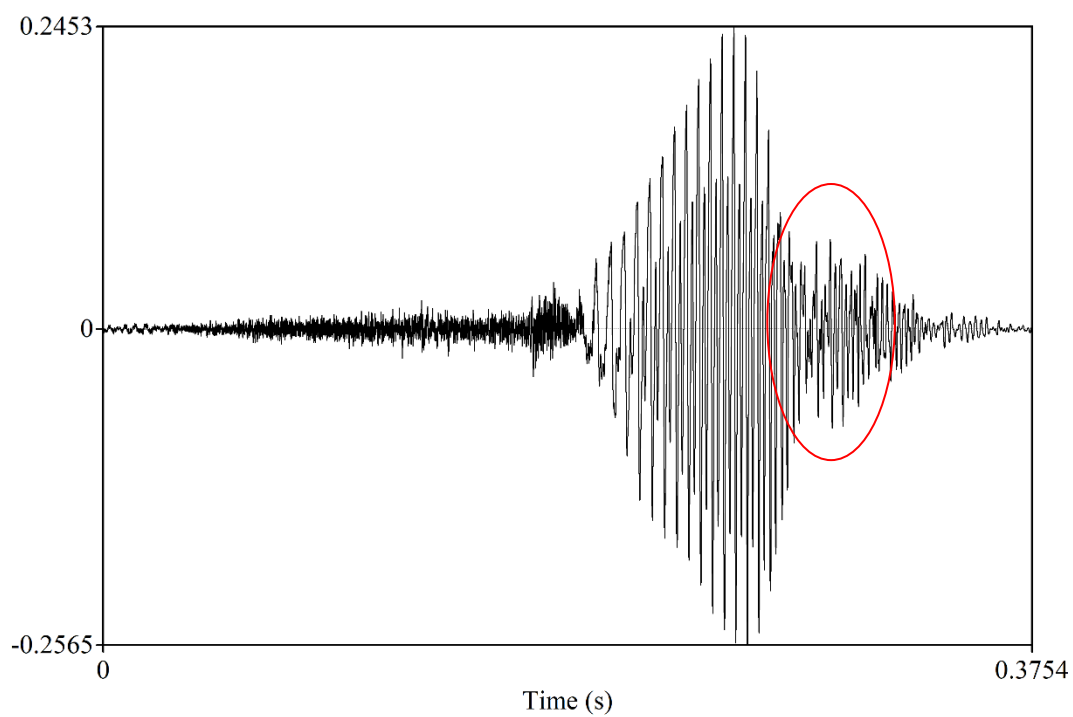


Figure 47a. A waveform of the word *hú* ‘hawk’ in isolation

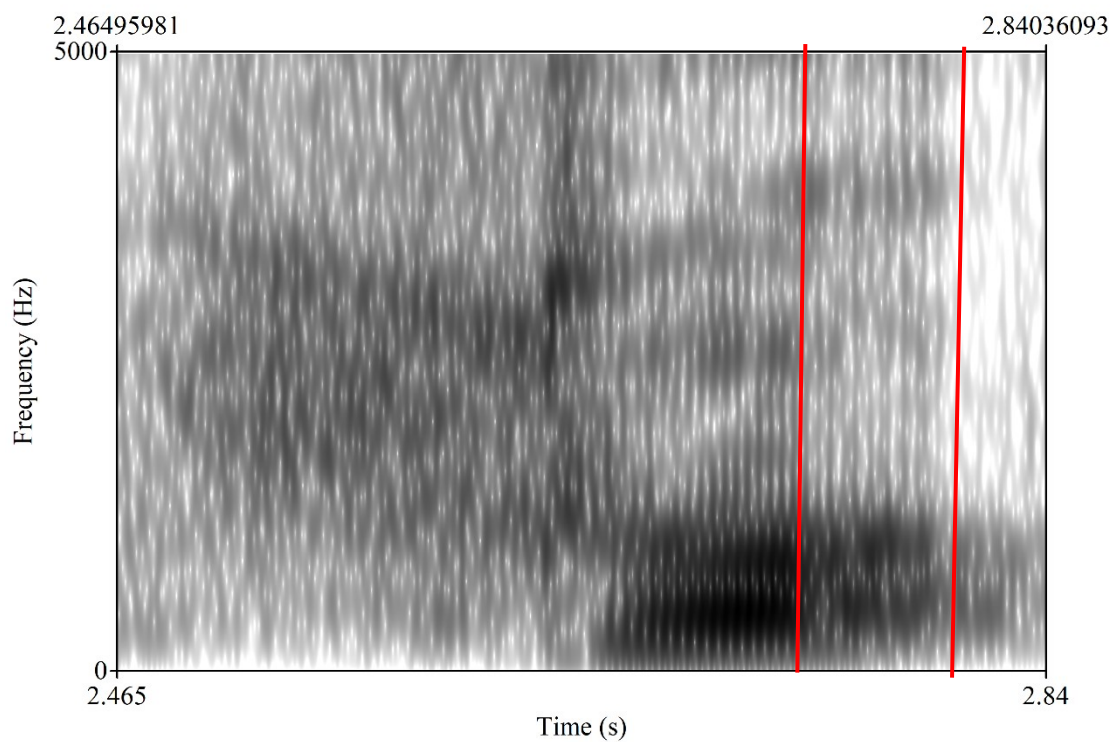


Figure 47b. A spectrogram of the word *hú* ‘hawk’ in isolation

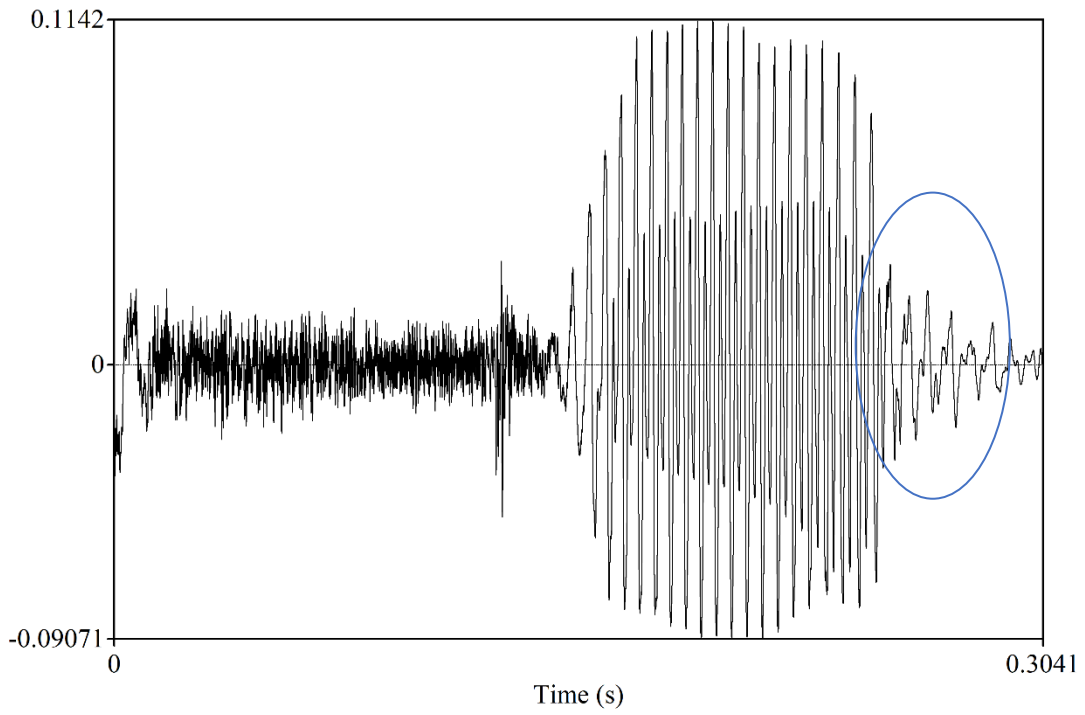
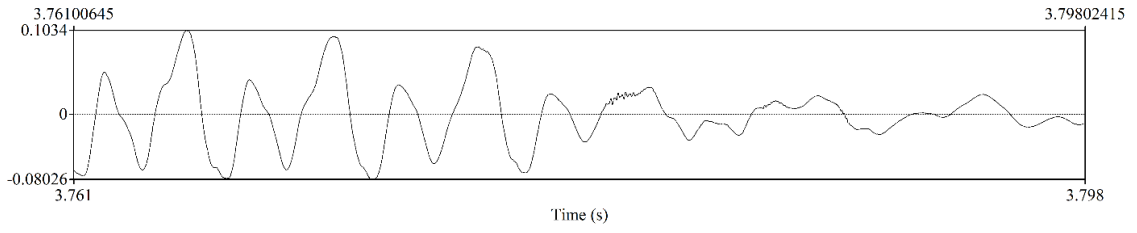
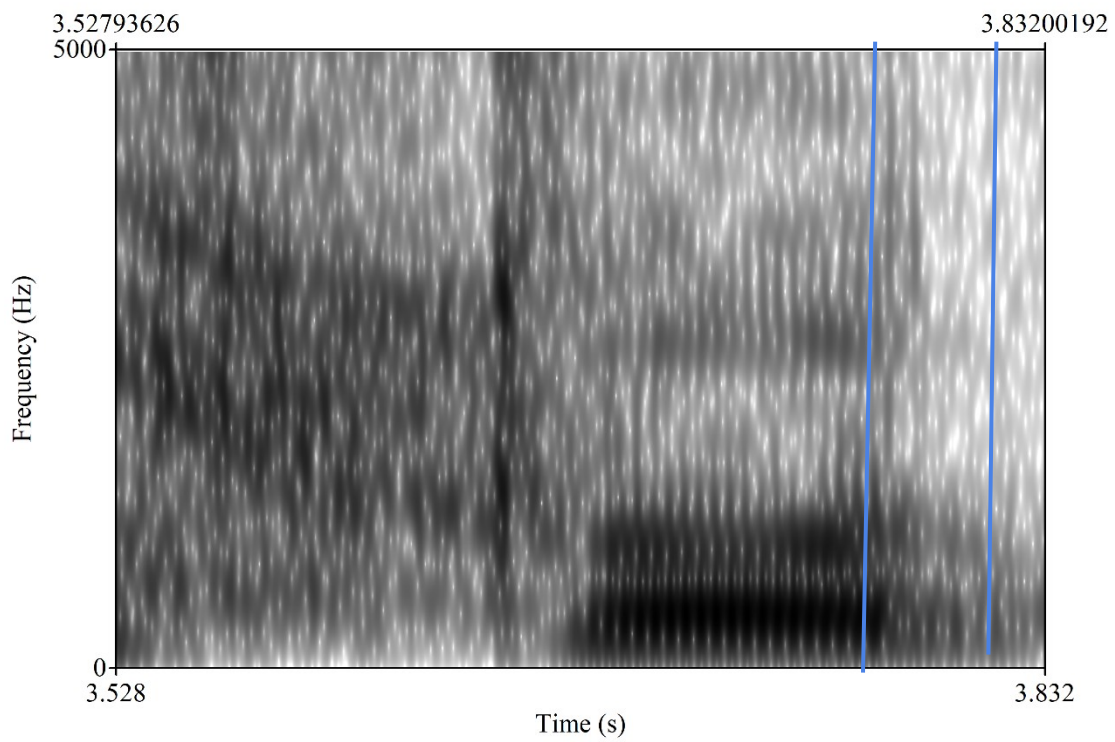
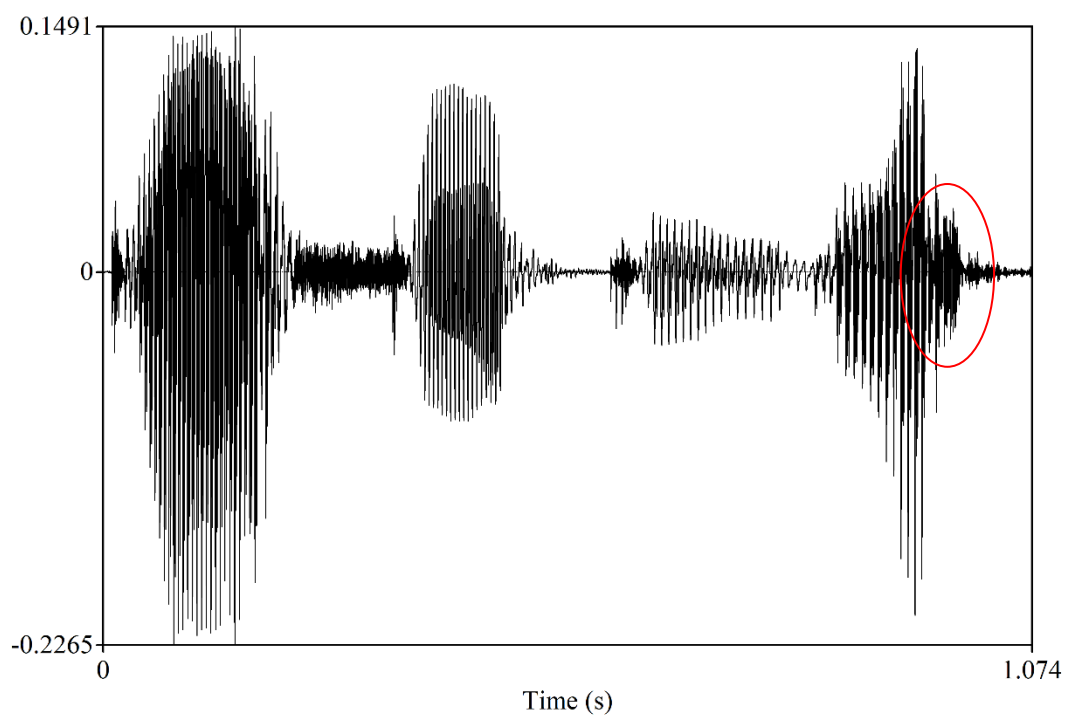


Figure 48a. A waveform of the word *tu* 'hawk' in a carrier sentence



*Figure 48b.* A waveform of the word *hú* ‘hawk’ in a carrier sentence

The following two figures show the waveform and spectrogram of carrier phrase [kà hú tà-zitǎ] ‘I said hawk’ in its entirety. Note the glottalization on the ultimate syllable.



*Figure 49a.* A waveform of the phrase *kà tú tǎ-zìtǎ* ‘I said hawk’

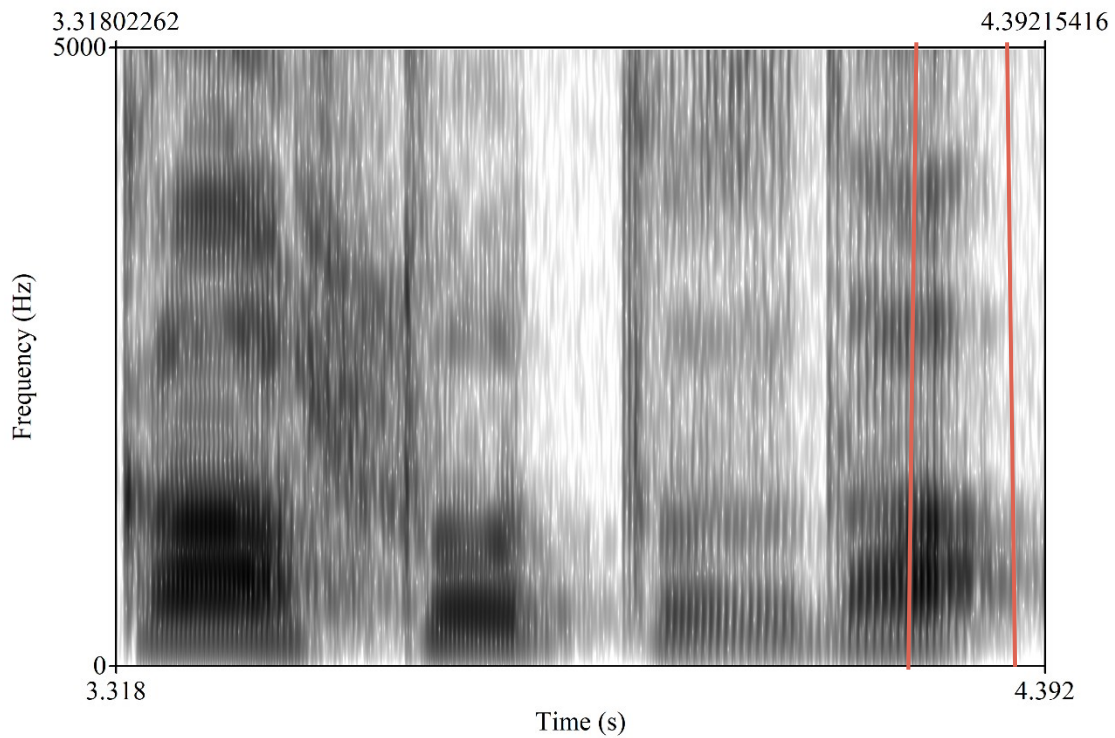


Figure 49b. A spectrogram of the phrase *kà hú tǎ-zǐtǎ* ‘I said hawk’

Utterance final glottalization has the perceptual effect of lowering high front vowels. Thus, the form /ʔè-tǎitǎí/ ‘all (lit. one-all)’ sounds closer to [ʔè.tǎi.tǎéʔ] utterance final position.

## 2.5 Chapter Summary

This chapter has provided significant phonetic detail. It is hoped that this will both allow readers to phonetically interpret the orthographic system used herein and to have sufficient background for discussions of morpho-phonological alternations that arise in later chapters. These include vowel harmony as well as rhotic-vowel harmony, as well as vowel reduction.

## ***Chapter 3: Suprasegmental phonology***

### **3.1 Introduction**

This chapter analyzes the suprasegmental phonology of Yonghe Qiang. The goal of this chapter is to lay a foundation of understanding of the tonal system so as to prepare the reader for the discussion in later chapters of morpho-phonological alternations in the Yonghe Verb-complex, some of which involve tonal alternations, tonal polarity, and tonal inflection classes for verbs. Because of the many borrowings from Sichuanese Mandarin, it is also necessary to give an account of the tones of Sichuanese loanwords, which belong to different strata according to when they were absorbed into the language.

The chapter is organized as follows. Section 3.2 introduces typological characteristics of tone in the region and gives some introduction to the analytic approach taken in this chapter. The tonal patterns of monosyllables are introduced in 3.3. Tone patterns for disyllables are introduced in 3.2. A brief discussion of tone in polysyllabic forms, which are rare, is given in 3.4. Section 3.5 gives a discussion of the tonal system of local varieties of Sichuanese as well as the tonal phonology of Chinese loanwords.

### **3.2 Tone in Himalayan languages of Sichuan**

Like most Tibeto-Burman languages, Yonghe Qiang is tonal. That is, pitch can be used to distinguish both lexical and grammatical meanings. Tonal systems of the languages of northwestern Sichuan are becoming increasingly well understood (Matisoff 1997, Evans 2001b, 2009, Lin Y. 2012). Tone in these languages is characterized by a small number of tonal contrasts. In languages of Sichuan, tonal contrasts are often asymmetrical and are



evidenced by few minimal pairs (Lin Y. 2012). Languages of the Himalayan tone type (see Evans 2008) often have exhibit tonal polarity and unpredictable tonal changes in composite forms.

While early descriptions of tone in Qiang used the Chao Yuen-Ren number system (cf. Sun H. 1981), this practice is better suited to tonal languages of the Mainland Southeast Asian Type in which the tone bearing unit is the syllable. For languages of the Himalayan tone type (see Evans 2008), the tone bearing unit may be a unit larger than the syllable, such as the morpheme or the phonological word (Mazaudon 2014; *inter alia*) or the ‘tone group’ (cf. Daudey 2014b).

Some scholars have applied Africanist transcription systems to languages of Sichuan (see Hyman 2007; Jacques 2014; Michaud 2017). Other scholars have used the framework of pitch-accent systems to analyze the languages of Sichuan (see Evans 2008). Work by Katia Chirkova & Chen (2013) on the Xumi varieties has shown that it is sometimes necessary to appeal to both accent/stress and tone in order to account for the prosodic phonology of the language.

The approach of this chapter is to avoid reductionism in the description of the tonal system and to present the different pitch patterns in all their asymmetry and unruliness. Growing phonetic evidence suggests that tone is rarely a simple matter of relative pitch but a complex issue involving cues such as duration, intensity, phonation, and laryngeal gestures (Brunelle & Kirby 2016). That is, the distinction between segmental and suprasegmental is somewhat artificial and the usefulness of such a distinction varies from language to language, depending on the phonetic cues for tone involved. In Yonghe, pitch patterns are interwoven with vowel duration, intensity, and general prominence. While this is not a comprehensive

account of the phonetic exponents of tone, some phonetic measurements will be given to show the complexity of tone in this language.

### 3.3 Pitch contrasts for monosyllabic forms.

Pitch can distinguish monosyllabic forms belonging to the same word class. The forms [bá] ‘to be old’ and [bǎ] ‘to be thick (cylindrical)’ constitute a minimal pair of Stative Verbs. Both forms have the same onset and vowel quality, but differ in pitch. Minimal sets are given in Table 1. Note that these minimal sets demonstrate that pitch-pattern and onset VOT are decoupled.

<i>Onset</i>	<i>Form</i>	<i>Gloss</i>	<i>Form</i>	<i>Gloss</i>
Unaspirated	pó	‘to become’	pǒ	‘snow’
Aspirated	p <sup>h</sup> ú	‘tree’	p <sup>h</sup> ǔ	‘stomach’
Voiced	bá	‘to be old’	bǎ	‘to be thick’

Table 30. Minimal sets for tone on monosyllables

Figure 50 shows pitch traces for a minimal pair [bá] ‘to be old’ and [bǎ] ‘to be thick (cylindrical)’.

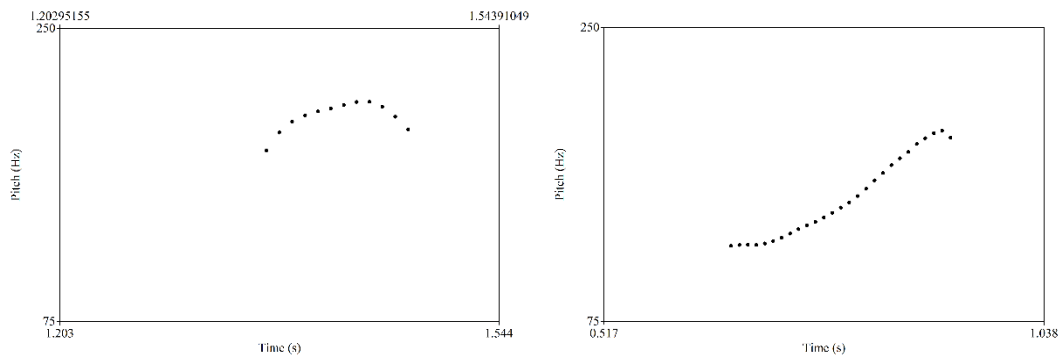


Figure 50. Pitch traces for [bá] ‘to be old’ vs. [bǎ] ‘to be thick’

Figure 51 gives averages of 12 words of each type said in a carrier phrase by Mr. Yang Zhiquan.<sup>44</sup>

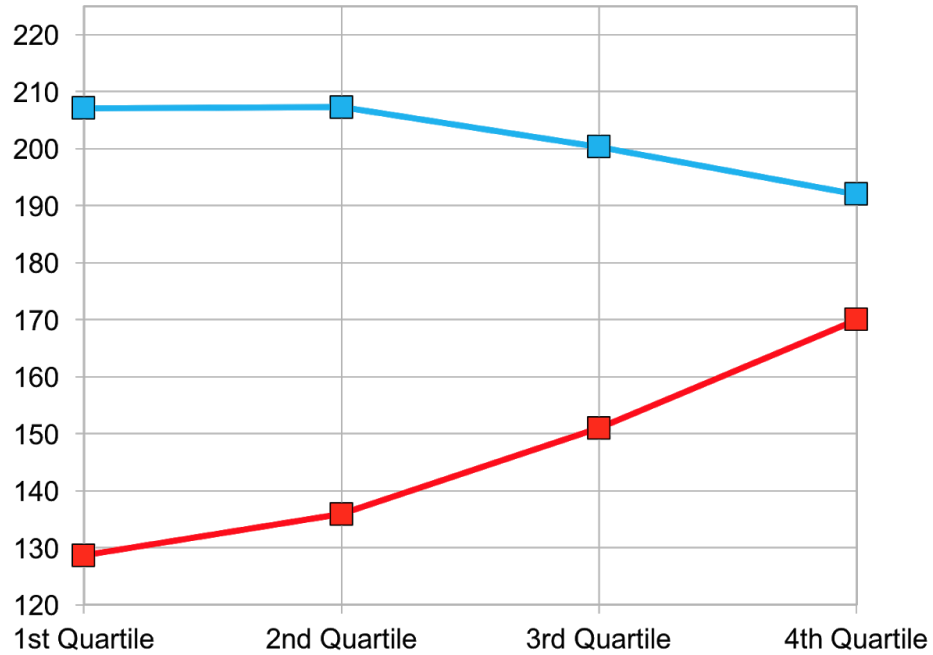


Figure 51. High vs. low-rising pitch pattern on monosyllables

The forms measured are given in Tables 31-32.

<i>Form</i>	<i>Gloss</i>
ká	‘I’
zá	‘ladle’
dzý	‘door’
ɕí	‘red’
ts <sup>h</sup> é	‘goat’
k <sup>h</sup> á <sup>1</sup>	‘rice’
k <sup>h</sup> ý	‘dog’

<sup>44</sup> Links to the primary data will be given throughout.

dá	‘cloud’
t <sup>h</sup> ú	‘oil’
mí	‘person’
mú	‘fire’
tí	‘bear’

*Table 31.* Monosyllabic forms with the high pattern

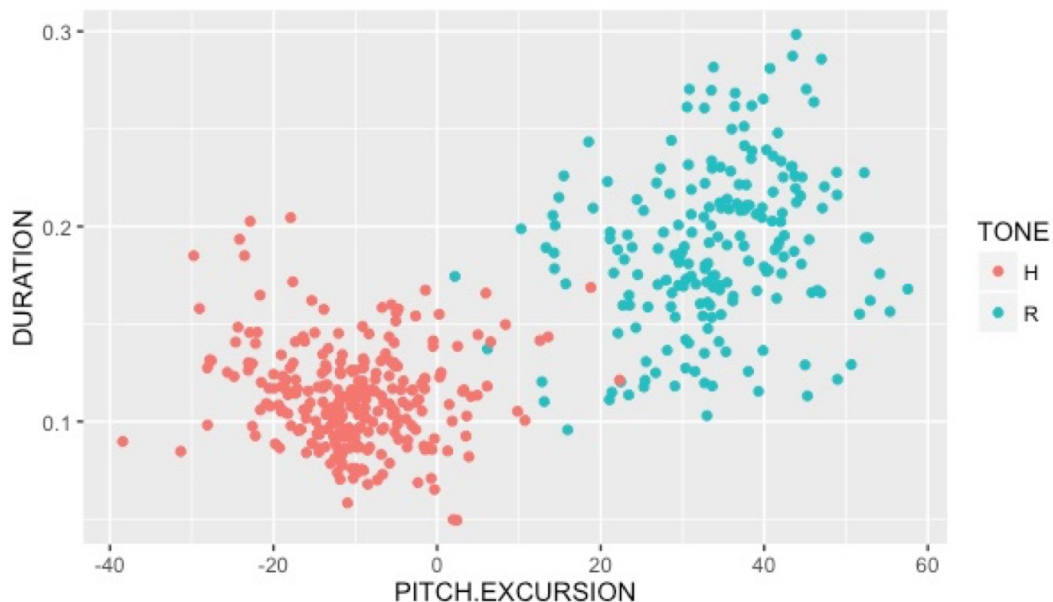
<i>Form</i>	<i>Gloss</i>
pǎ	‘pig’
tswǎ	‘spittle’
sǎ	‘blood’
hǎ	‘sword’
jǎ	‘cliff’
sǔ	‘hemp’
kwǎ	‘hoe’
mǎ <sup>1</sup>	‘autonym’
mǒ	‘noodles’
p <sup>h</sup> ǒ	‘cards’
p <sup>h</sup> ǔ	‘stomach’
xǎ	‘needle’
xǐ	‘wine’

*Table 32.* Monosyllabic forms with the low-rising pattern

It would be inaccurate to say that pitch alone distinguishes these forms. Syllables with the high pitch pattern are shorter than those with the low-rising pitch pattern. This is consistent

with typological studies which find that rising tones are generally longer (Gordon 2001, 2016: 229-233). Figure 59, which shows only the pitch values, does not capture this difference.

Figure 52 gives an illustration of this length difference using measurements of words said in isolation by three different speakers. The X axis indicates pitch excursion, the pitch at the end of the vowel minus the pitch at the beginning portion of the vowel. The Y axis indicates duration in seconds. H(igh) pitch syllables have mostly negative pitch excursions whereas the R(ising) pitch syllables have positive pitch excursions.



*Figure 52.* Quantitative measurements of high and rising pitch patterns on monosyllables. Syllables uttered in isolation are longer than those uttered within a carrier sentence. There is an asymmetry such that this difference in duration is greater for syllables with the low-rising pitch than those with the high pitch. Figure 53 gives an illustration of the differences in duration between forms uttered in isolation (blue) and those uttered within the carrier sentence *ká X tǎ-zǐtǎ* ‘I said X’. This represents 300 vowels on forms uttered by three different speakers. Each word was said in isolation three times followed by the same form in

the carrier phrase three times. High tone words are on the left side whereas Rising tone words are on the right side.

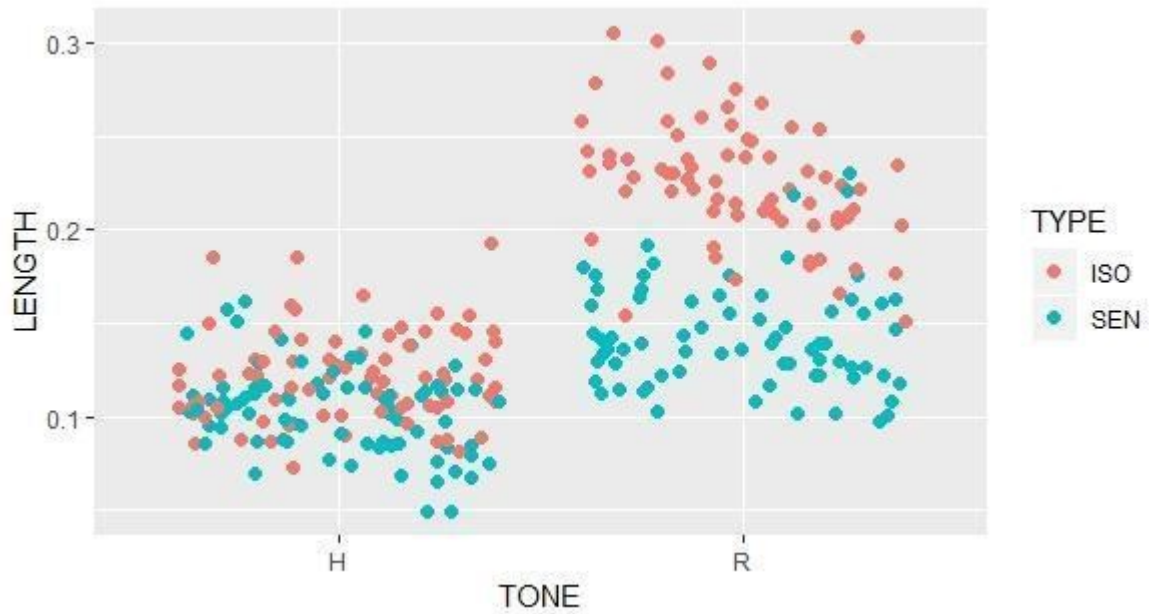
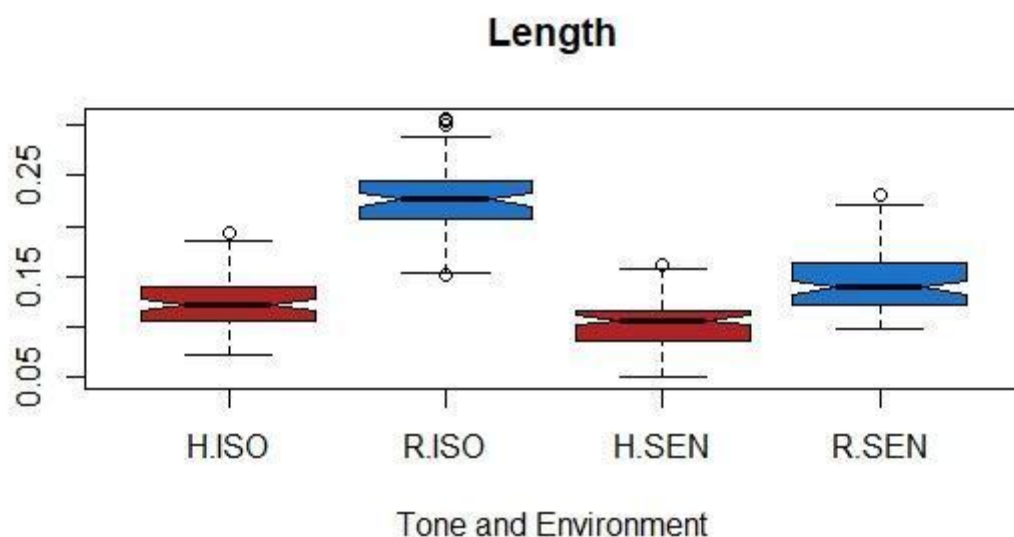
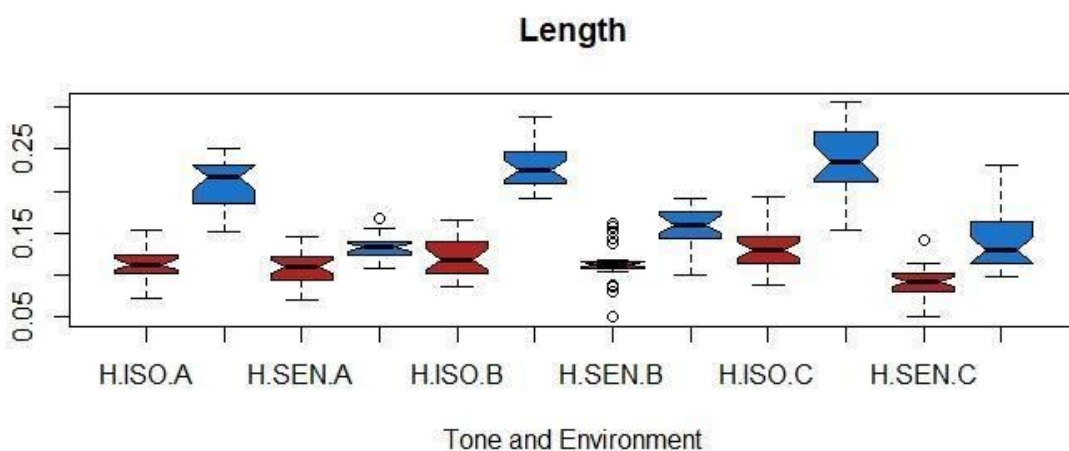


Figure 53. The difference in length of H and R toned words in different contexts

The relationship between duration, tone, and environment (isolation vs. sentence) may also be represented using the following boxplot.



*Figure 54.* Boxplot showing the relationship between length, tone type, and environment. This trend obtains for all three speakers recorded, though the difference was more pronounced for the two female speakers (B and C). Figure 55 shows the same data plotted to illustrate this pattern for each speaker.



*Figure 55.* Boxplot of interrelationship between length, tone, and environment by speaker. A statistical model of length as a function of the factors of tone, speaker, type (isolation or carrier sentence) and their interactions was made using the `lm` function in R. All of these

factors, (tone, speaker, sentence type) had significant predictive power and there was also a statistically significant interaction between type and tone.

```

Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.114136  0.003739  30.525 < 2e-16 ***
TONE=Rising      0.104835  0.004414  23.751 < 2e-16 ***
TYPE=Sentence    -0.017666  0.004324  -4.086 5.68e-05 ***
SPEAKER=B        0.013710  0.003841   3.570 0.000418 ***
SPEAKER=C        0.009026  0.003781   2.387 0.017610 *
TONE=R:TYPE=SEN -0.065403  0.006241 -10.480 < 2e-16 ***
-----|
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.027 on 294 degrees of freedom

Multiple R-squared:  0.7555,    Adjusted R-squared:  0.7514

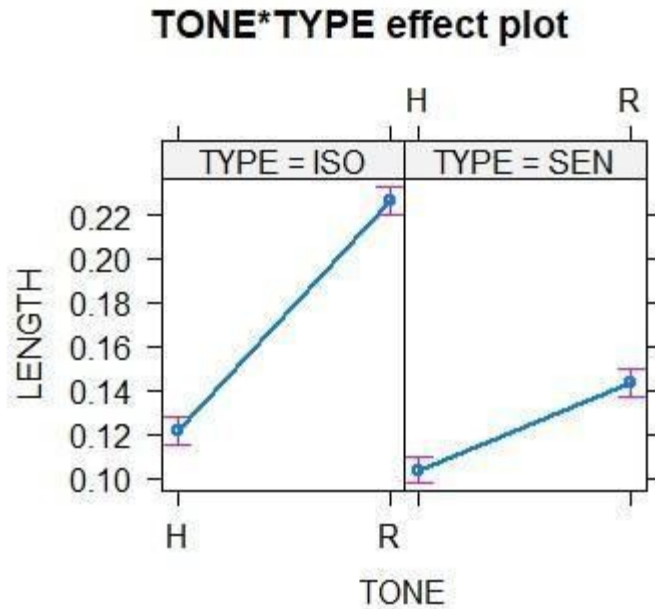
F-statistic: 181.7 on 5 and 294 DF, p-value: < 2.2e-16

```

*Figure 56.* Statistical model of length as a function of tone, speaker, type

Figure 56 shows the interaction between tone and type as well as the asymmetry of this interaction.





*Figure 57.* Interaction between tone and environment type in predicting length

Figure 57 shows that there is a length difference between the H and R tone types both in isolation and in the carrier sentences, but that this difference is much less robust for the forms within the carrier sentences. This could be interpreted as an utterance final lengthening effect which affects the rising toned words more greatly than the high-toned words.

*A note on frequency*

Forms with the high pitch are much more common than forms with the low-rising pitch pattern.

An investigation of the monosyllabic Yonghe Qiang forms through the lens of the Swadesh list found that of the 100 forms in the Swadesh list, 53 were monosyllabic in Yonghe. Of these, 42 had the high pitch pattern whereas only 11 had the low-rising pitch pattern.

### 3.3.1 Possible origins of the two-way tonal contrast

The origins of the tonal contrast in Yonghe Qiang are explored in Sims (2020, *forthcoming*). In short, the tonal contrast appears to have emerged from a loss of Proto-Tibeto-Burman consonant codas. Smooth syllables, those without codas or with resonant codas, yielded high pitch patterns whereas checked syllables, those ending in *\*p*, *\*t*, and *\*k*, induced low-rising pitch patterns. Table 4 gives examples showing this correspondence with Written Tibetan, which preserves consonant codas. Pre-Tibetan forms follow Hill (2019a). Note that the regular vowel correspondences, *\*a* > [i] and *\*ak/ɣ* > [æ], support the cognancy of these forms.

<i>Sambhota</i>	<i>Wylie</i>	<i>Pre-Tibetan</i>	<i>Yonghe</i>	<i>Gloss</i>
མ་	<i>-ma</i>	<i>*-ma</i>	-mí	‘female suffix’
མ་	<i>ma-</i>	<i>*ma-</i>	mí-	‘negating prefix’
གསར་	<i>gsar</i>	<i>*ksar</i>	sí	‘new’
ཕག་	<i>phag</i>	<i>*pak</i>	pǎ	‘pig’
བཏག་	<i>btag</i>	<i>*ptak</i>	tǎ	‘to weave’
ཡག་	<i>jag</i>	<i>*jak</i>	jǎ	‘to be good’
དགའ་	<i>dga’</i>	<i>*dgay</i>	gǎ	‘to love’

Table 33. Correspondence of Tibetan syllable type with Yonghe tone

Having discussed the tonal patterns for monosyllabic forms, we now turn to discussion of the tonal contrasts for disyllabic forms.

### 3.4 Pitch contours on disyllabic forms

Pitch patterns on disyllabic forms present a four-way distinction. The patterns can be described as high-initial, high-final, and rising-initial, and rising-final. These might be analyzed as H-L, L-H, LH-L, and L-LH respectively. These pitch patterns are clearly distinct and each pitch pattern is independent of the consonant onset type. Yet, there are very few minimal pairs between any two of the pitch patterns, and we have not found an exact minimal set for all the pitch-patterns. This is typical of tonal Himalayan languages in which minimal pairs may not abound, but tone is nonetheless a crucial part of the phonology of the language (see Lin Y. 2012 for discussion).

The high-initial and high-final pitch patterns are found in both Nouns and Verbs alike whereas the rising-initial pattern is exclusive to Nouns. The rising-final pattern is exclusive to certain inflected verbs. This section will discuss each of the pitch patterns and give examples as well as quantitative measurements.

### 3.4.1 The high-initial pattern

The high-initial pattern has a high pitch on the first syllable and a mid-pitch on the second syllable. In the Chao number system, this pitch pattern could be described as CV<sup>55</sup>CV<sup>32</sup>. The accent pattern for these forms is trochaic and the second syllable is shorter in length than the first syllable. Examples of disyllabic forms of this type are given in Table 34.

<i>Form</i>	<i>Gloss</i>
lápà	‘flower’
múk <sup>h</sup> λ	‘smoke’
wátsù	‘stick’
éitéy	‘scythe’

tápù	‘to like’
mútè	‘to search’
látè	‘to fly’
éítè	‘to drag’
zétè	‘to pound, knock’
jétè	‘to write’
sútè	‘to jump’
p <sup>h</sup> útè	‘to blow’

Table 34. Forms with the high-initial pitch pattern.

Figure 58 gives an illustration of this type using the word *lápà* ‘flower’. Pitch traces are given in dots and intensity is given as a solid line.

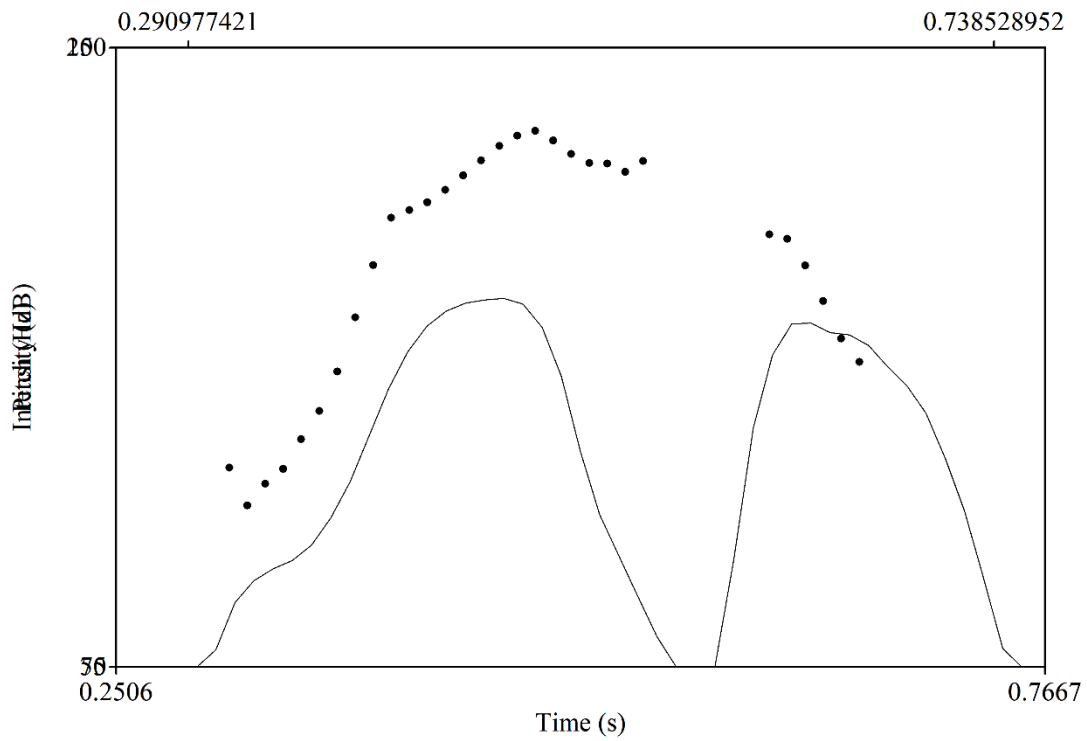


Figure 58. Pitch and intensity for the form *lápà* ‘flower’

### 3.4.2 The high-final pattern

Disyllables with the high-final pattern have a low-level pitch on the first syllable and a high pitch on the second syllable. In the Chao number system, this pitch pattern could be described as roughly CV<sup>32</sup>CV<sup>55</sup>. Examples of disyllabic forms of this type are given in Table 35.

<i>Form</i>	<i>Gloss</i>
tàwá	‘hat’
màtʂá	‘cooked rice’
mùéí	‘sun’
pàná	‘thing’
wàsá	‘monkey’
kàwú	‘bowl’
lùkú	‘sausage’
èimí	‘fruit’
l̀t́é	‘to sprinkle’
z̀t́é	‘to cry’
m̀t́é	‘to rub’
k̀t́é	‘to beat to death’

Table 35. Forms with the high-final pitch pattern.

Figure 59 gives an illustration of this pitch pattern using the word *màtʂá* ‘cooked rice’.

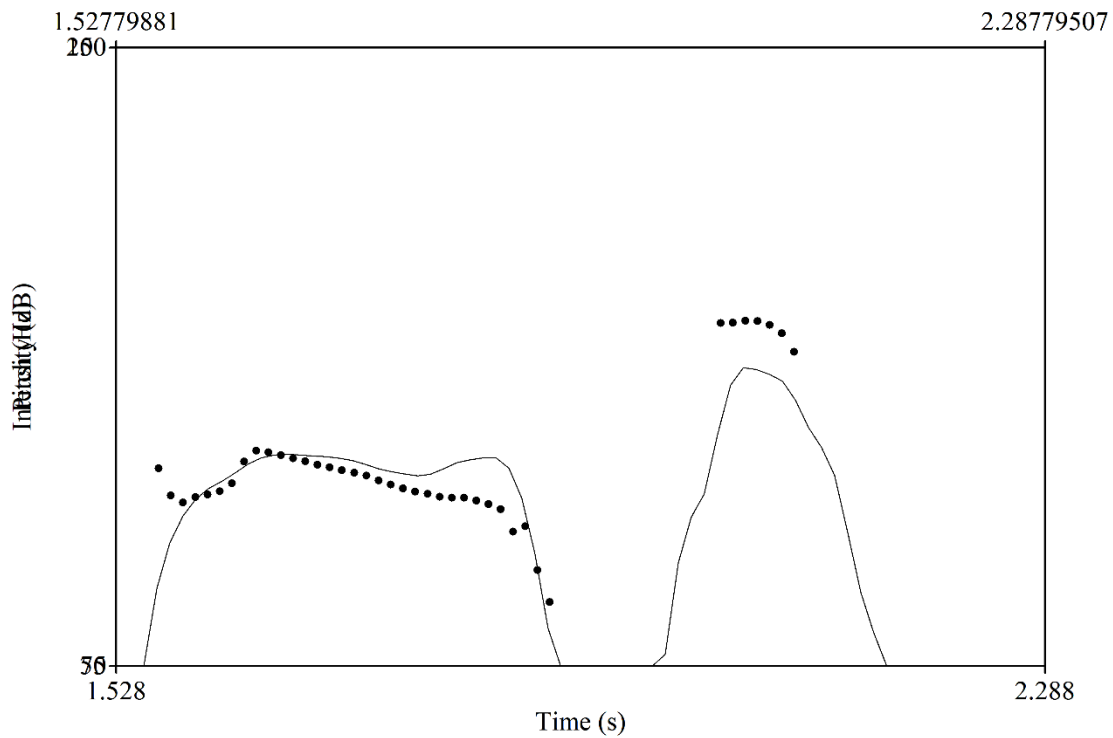


Figure 59. Pitch and intensity for the form *màtʂá* ‘cooked rice’

The accent pattern for these forms is *not* the inverse of that of the high-initial forms. The high-initial forms are straightforwardly trochaic. However, for the high-final pattern, the first syllable is long, and the second syllable is short, sharp, and punctuated. If this were simply the inverse of the high-initial prominence pattern, the first syllable would be reduced and shorter than the second syllable. For the high-final forms, it is difficult to say which syllable is more prominent. The first syllable is much longer than the second syllable, yet it has a lower pitch and intensity.

Note that while there are no segmentally identical minimal pairs contrasting high-initial and high-final forms, there are many near minimal pairs. Thus, *zétè* ‘to pound, knock’ vs. *zàté* ‘to weep’, *mútè* ‘to search’ vs. *màté* ‘to rub’, as well as *látè* ‘fly’ vs. *lètè* ‘to sprinkle’.

### 3.4.3 The initial-rising pattern

Disyllabic forms with the initial rising pattern have a low rising pitch on the first syllable and a mid-level pitch on the second syllable. In the Chao number system, this pattern could be described as roughly CV<sup>13</sup>CV<sup>43</sup>. Example forms with this pitch pattern are given in Table 36.

<i>Form</i>	<i>Gloss</i>
mǔnà	‘sun’
mǔzì	‘rain’
gǔsì	‘clothing’
bǔnà	‘worm’
tǎkỳ	‘loom’
tsěkà	‘springtime’
dzwě̀nà	‘millstone’
lǔpù	‘demon’
jǎtè	‘dinner’
t <sup>h</sup> òmù	‘brother’
dzǐkỳ	‘money’

Table 36. Forms with the rising-initial pitch pattern.

The rising-initial pitch pattern is unusual in several respects. First, it is unlike the high-initial and high-final patterns in that it involves a contoured pitch pattern not found in the other two. Secondly, while the high-initial and high-final occur with both Nouns and Verbs, the initial-rising pitch pattern occurs almost exclusively with Nouns.

Many, if not all, of the Nouns with the rising-initial pattern are historically composite forms. For example, both *mǔnà* ‘sun’ and *mǔzì* ‘rain’ have the [mu] ‘weather / sky’

morpheme found in other words, such as *músi* ‘air’ and *mùtú* ‘sky’. The form ‘clothing’ is a deverbal nominal composed of ‘wear’ + the nominalizer *-si* (see LaPolla & Huang 2003: 43). The form for ‘worm’ has same initial element found in *bùsá* ‘spider’ (see Matisoff 2003 for discussion of this prefix). The form *těky* ‘loom’ clearly contains the form for ‘weave’ *tě*. The form *tsěkl* ‘springtime’ has the same formative suffix found in *súkλ* ‘wintertime’. The word *dzwěnl* ‘millstone’ is transparently a compound of *dzwě* ‘to grind’ + *nλpála* ‘stone’. The form *jǎtè* ‘dinner’ is a composite form with the first element is *jǎ* ‘to be good’ (see LaPolla & Huang 2003: 341 on this form). The form for ‘demon’ may have the *\*pu* suffix discussed in Chapter 6. The etymology of *t<sup>h</sup>òmù* ‘brother’ is unclear. The first syllable in the word for ‘money’ may be an old loan from Chinese 钱 *qián* ‘money’ (Sun 1988: 58).

Aside from Nouns, there is also a small number of intensifiers with the rising-initial pattern. A full list of those observed in the corpus is given in Table 37. There is some variability in the initial of these forms, yet the tonal pattern is the same.

<i>Form</i>	<i>Gloss</i>
fǎtλ ~ jǎtλ	very, really
fǎki ~ jǎki	very, really
fǎpì ~ jǎpì	alot

Table 37. Intensifiers with the rising-initial pattern

Figure 60 gives an illustration of this pitch pattern using the word *tsěkl* ‘springtime’.



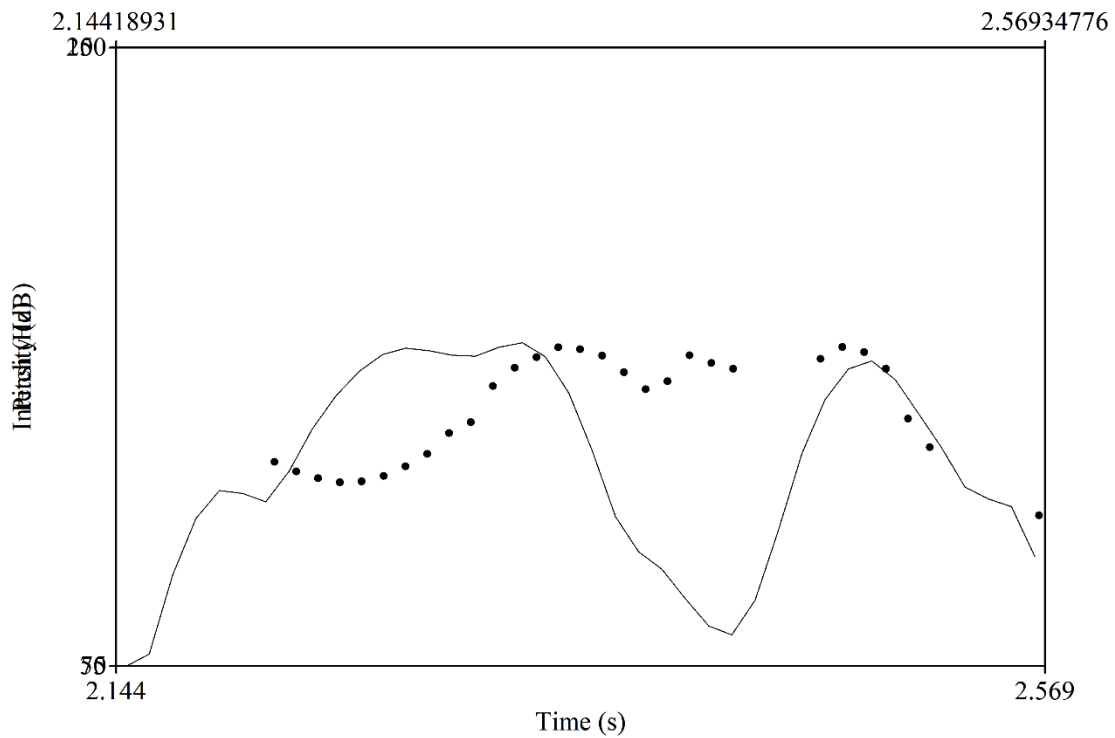


Figure 60. Pitch and intensity for the form *tsɛkà* ‘springtime’

The rising-initial pitch pattern may be described as marginal within the Yonghe Qiang tonal system and since there are no verbs with this tonal pattern it will not be further discussed here.

*A note on frequency*

Of the four pitch patterns, the high-final type is the most common. The high-initial type is approximately half as common. The rising-initial type is rarer. Again, we can use the Swadesh list as a measure of this frequency. Among the 45 disyllabic words found in the Swadesh list, 27 were of the high-final type, 12 were of the high-initial type, and only 6 were of the rising-initial type.

### 3.2.3.4 Phonetic measurements of the three types found on Nouns

Figure 61 gives pitch measurements of the high-initial (blue), high-final (yellow), and rising-initial (red) pitch patterns types averaged over 12 instances of Nouns said in isolation by Mr. Yang Zhiquan.

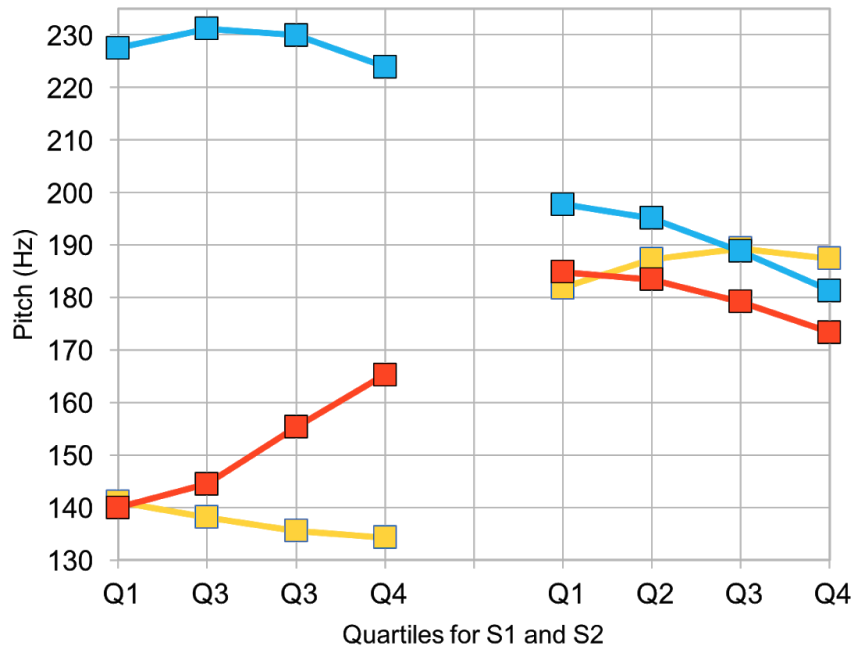


Figure 61. Average pitch values for the three pitch patterns found on Nouns

Note that Figure 61 shows average pitch values at quartiles of the syllables. Thus, this figure does not capture the differences in duration and intensity across syllables for the three types. Since this is not a detailed account of the various exponents of Yonghe tone, this relationship will not be explored here, but the asymmetry in this respect should be kept in mind.

### 3.4.4 The rising-final pitch pattern

Disyllables with the rising-final pitch pattern have a mid-level pitch on the first syllable and a rising pitch pattern on the second syllable. In the Chao number system, this pattern could be

described as roughly CV<sup>33</sup>CV<sup>35</sup>. The accent pattern for these forms is iambic. The second syllable is longer than the first syllable.

This pattern is unlike the high-initial, high-final, and initial-rising pattern in that there are no Nouns with this pattern. The rising-final pattern is unlike the high-initial and high-final pattern in that there are no verb stems with this pattern. The rising-final pattern only emerges when certain types of verbs are prefixed and in the perfective aspect. Some examples of inflected verbs with this pattern are given in Table 38.

<i>Citation Form</i>	<i>Gloss</i>	<i>Inflected Form</i>	<i>Gloss</i>
tè-zyé	‘to finish’	tè-zyǎ	‘I’ve finished’
tλ-xλ	‘to get full’	tλ-xǎ	‘I’ve gotten full’
ʔè-mé	‘to forget’	ʔè-mǎ	‘I’ve forgot’
ɦλ <sup>1</sup> -wλ <sup>1</sup>	‘to get tired’	ɦλ <sup>1</sup> -wǎ <sup>1</sup>	‘I’ve gotten tired’
ʔè-tý	‘to see	ʔè-tyǎ	‘I’ve seen’
ʔà-sá	‘to hear’	ʔa-sǎ	‘I’ve heard’
ʔλ-n λ	‘to know’	ʔλ-nǎ	‘I’ve known’

Table 38. Verbs with the morphologically derived rising-final pattern

The verbs in the leftmost column have in their citation form, prefixes which are spatial/orientational in nature. These prefixes are obligatory in the perfective aspect and also used in imperative constructions (see Chapter 5). For verbs of this type, there is a tonal change from a high pitch to a low-rising pitch in the perfective aspect. While all of the verbs in perfective form are also in the first person, this pitch pattern is not restricted to first person perfective and also occurs in forms not marked for person.

### 3.4.4.1 Quantitative Measurements

Figure 62 gives comparisons of pitch and intensity of the citation form of the verb ‘to forget’ with the same verb inflected for first person and perfective aspect.

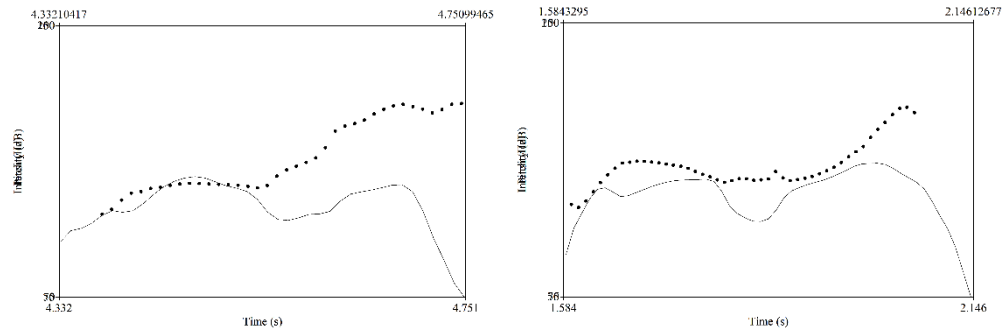


Figure 62. Pitch and intensity traces of *ɣè-mé* ‘to forget’ vs. *ɣè-mǎ* ‘I’ve forgotten’

## 3.5 Tone in local varieties of Sichuanese

The influence of Sichuanese Mandarin on Qiang cannot be overstated (Evans 2001b; Stanford & Evans 2012). The overwhelming majority of new terms in the language are either direct loans from Sichuanese or are Qiang calques on Sichuanese constructions. For younger speakers, even words with Qiang equivalents are being replaced by Sichuanese forms at a rapid pace. Because of the strong influence of Sichuanese on the Qiang lexicon, it is necessary to discuss how the tones of Sichuanese are incorporated into Qiang.

The four tones of Mandarin Chinese are a useful point of entry for discussing tone in Sichuanese. Table 39 gives a comparison of the four tones of Standard Mandarin with those of Sichuanese.<sup>45</sup>

<sup>45</sup> Although some varieties of Sichuanese along the Min River have an additional checked tone or ‘entering tone’, I have not found this to be the case for Mao County varieties of Sichuanese. The influence of standard (Chengdu) Sichuanese has grown dramatically over the past few decades, and the loss of the entering tone may be part of this larger shift towards dominant varieties.

<i>Tone</i>	<i>Mandarin</i>	<i>Sichuanese</i>	<i>Gloss</i>	<i>Character</i>
1	ma <sup>55</sup>	ma <sup>45</sup>	‘mother’	妈
2	ma <sup>35</sup>	ma <sup>21</sup>	‘hemp’	麻
3	ma <sup>213</sup>	ma <sup>51</sup>	‘horse’	马
4	ma <sup>51</sup>	ma <sup>213</sup>	‘to scold’	骂

Table 39. The tones of Standard Mandarin and Sichuanese

Some points of departure from Mandarin are worth noting here. The high-level tone of Mandarin (1) has a slight rise in Sichuanese. The low rising tone of Mandarin (2) is a low falling tone in Sichuanese. The dipping tone of Mandarin (3) is a high-falling tone in Sichuanese. The falling tone of Mandarin (4) is a dipping tone in Sichuanese.

### 3.5.1 Monosyllabic Sichuanese loans

The four tonal categories are important for understanding how words become loaned into Yonghe Qiang. When monosyllabic forms are used by Yonghe Qiang speakers, there is a loanword marking suffix [-t<sup>h</sup>à ~ -t<sup>h</sup>á].<sup>46</sup> The tone of both the loanword and the loanword making suffix depend on the word’s tonal category in Sichuanese.

The high-rising [45] tone of and high-falling [51] tones of are borrowed with a high pitch and a low-pitch pattern on the loanword marker, forming a high-initial pitch pattern. The low-falling tone [21] and dipping tone [213] of Sichuanese are borrowed with a low pitch on the first syllable and a high pitch on the loanword marker, forming the high-final pitch

<sup>46</sup> This suffix is also found in other varieties of Qiang (see Evans 2004).

pattern. Thus, it is the pitch at the onset of the borrowed word which determines whether it is borrowed as either high or low. Table 40 gives examples illustrating this pattern.

<i>Tone</i>	<i>Sichuanese</i>	<i>Yonghe Loan</i>	<i>Gloss</i>	<i>Character</i>
1	[k <sup>h</sup> wǎ̃ <sup>45</sup> ]	k <sup>h</sup> wǎ̃n-t <sup>h</sup> à	‘to be wide’	宽
2	[mǎn <sup>21</sup> ]	màn-t <sup>h</sup> á	‘to be busy’	忙
3	[jyǎ̃ <sup>51</sup> ]	jwǎ̃n-t <sup>h</sup> à	‘to be far’	远
4	[k <sup>h</sup> wǎj <sup>213</sup> ]	k <sup>h</sup> wǎj-t <sup>h</sup> á	‘to be fast’	快

Table 40. Sichuanese loanwords followed by a toneless suffix *-tha*

Some examples from connected speech are given below. Example (1) gives a usage of the Chinese form 兴 *xīn* ‘to allow, to permit, to practice’. This form has Tone 1 in Mandarin and the high-rising tone in Sichuanese.

- (1) ʔán            ɛín-t<sup>h</sup>à-j  
 DISC            practice-BOR-EVID  
 ‘yeah, (they) practice (shamanism)’

Example (2) shows the Sichuanese word 远 *yuǎn* ‘to be far’ borrowed into Yonghe Qiang. This word has tone 3 in Mandarin and the high-falling tone in Sichuanese.

- (2) jín.wèj            fǎ̃tλ            jwǎ̃n-t<sup>h</sup>à-j  
 because            very            far-BOR-EVID  
 ‘because it’s very far’

Example (3) shows the use of the Chinese loan 胖 *pàng* ‘to be fat’ which has Tone 4 in Mandarin and the low-dipping tone in Sichuanese.

- (3) ʔá-w      p<sup>h</sup>àn-t<sup>h</sup>á      p<sup>h</sup>àn-t<sup>h</sup>á      kí      wù-j      háj̩sì  
 one-bit      fat-BOR      fat-BOR      thus      COP-EVID      still  
 ‘(he) is still quite chubby’.

### 3.5.2 Monosyllabic Sichuanese loans

There is a tendency for disyllabic Sichuanese forms to have a strong-weak pattern of emphasis. This tendency towards a trochaic accent pattern is independent from the tonal pattern of the syllables. Table 41 illustrates this pattern using reduplicated Sichuanese forms.

<i>Tone</i>	<i>Chinese</i>	<i>Pinyin</i>	<i>Sichuanese</i>	<i>Gloss</i>
1	包	<i>bāo</i>	[‘paw <sup>45</sup> paw <sup>45</sup> ]	‘bag, pocket’
2	瓶	<i>píng</i>	[‘p <sup>h</sup> in <sup>21</sup> p <sup>h</sup> in <sup>21</sup> ]	‘bottle’
3	款	<i>kuǎn</i>	[‘k <sup>h</sup> wǎ̃ <sup>51</sup> k <sup>h</sup> wǎ̃ <sup>51</sup> ]	‘section’
4	袋	<i>dài</i>	[‘taj <sup>213</sup> taj <sup>213</sup> ]	‘sack’

*Table 41.* Examples showing a tendency towards first syllable prominence in Sichuanese

Despite this tendency within Sichuanese, disyllabic loanwords from Sichuanese are generally borrowed with the high-final pitch pattern. Table 42 gives examples of disyllabic loans from Sichuanese.

<i>Chinese</i>	<i>Pinyin</i>	<i>Sichuanese</i>	<i>Yonghe</i>	<i>Gloss</i>
草鞋	cǎoxié	ts <sup>h</sup> aw <sup>51</sup> xaj <sup>21</sup>	ts <sup>h</sup> ò'xá	'straw sandals'
辣椒	làjiāo	la <sup>21</sup> teaw <sup>55</sup>	là'teý	'pepper'
干净	gānjìng	kæ <sup>45</sup> tein <sup>21</sup>	kæn'tsí	'clean'
河坝	hé bà	xo <sup>21</sup> pa <sup>213</sup>	φù'pá	'riverbank'
皮球	píqiú	p <sup>h</sup> i <sup>21</sup> te <sup>h</sup> Λw <sup>21</sup>	p <sup>h</sup> i'te <sup>h</sup> Áw	'ball'
北京	běijīng	pe <sup>21</sup> tein <sup>45</sup>	pè'teí	'Beijing'
牦牛	máoniú	maw <sup>21</sup> njΛw <sup>21</sup>	màw'njÁw	'yak'

*Table 42.* Disyllabic loans from Sichuanese borrowed with the high-final pattern

Apart from these older loans, which generally have the high-final prosodic pattern, there are many more recent loans which have the full tonal range that is native to Sichuanese. These forms do not conform to the four-way distinction for disyllabic native forms and are identical in pitch pattern to the original Sichuanese.

### 3.6 Summary

Tone in Yonghe Qiang is characterized by asymmetry in many respects. There is a basic asymmetry in the inventory. This can be seen in the inventory for monosyllables, which have a contrast between high and rising rather than high vs. low or falling vs. rising. This asymmetry is also evident in the inventory of disyllabic forms. Even the disyllabic forms which are most symmetrical, the high-initial and high-final pitch patterns, are asymmetrical with respect to vowel length and syllable prominence.



Having introduced the segmental and suprasegmental building blocks of the language, the following chapters will look at the Verb-complex, the focus of this dissertation.

## *Chapter 4: The Yonghe Qiang Verb-Complex*

### **4.1 Introduction**

This chapter is the first of three focused on the Yonghe Qiang Verb-Complex. The Verb-complex is the most complicated element of the different Qiang language varieties (LaPolla & Huang 2003: 120-121; Evans & Sun 2013). This chapter follows LaPolla & Huang (2003: 120) in using the term ‘verb-complex’, defined as “the predicating part of the clause, not including the clause final mood particles” because there are multiple elements to the Verb-complex, which function together as a single predicate.”

Before going forward with the Yonghe Qiang Verb-Complex, it is necessary to define this construction distributionally. Within the framework of RCG, construction types can be defined by their language internal properties of distribution (see Croft 2001).

For Yonghe Qiang, we can recognize ‘parts of speech’ (as well as sub-classes for some categories) as emergent, partially overlapping families of constructions which can be defined distributionally. A simplistic, but powerful definition would be to define the Yonghe Qiang Verb-complex as a predicative element which can take the negating prefix. Thus, *ká* ‘to be able’ is a ‘verb’ because it can be negated with the negating prefix *mà-*, yielding *mà-ká* ‘unable’. On the other hand, the form *màtʂá* ‘cooked rice’ is a ‘noun’, as it cannot be negated. The would-be negated form, *\*ma-matʂa*, is seen as ridiculous by native speakers. This definition is sufficient for distinguishing Yonghe Nouns and Yonghe Verbs in a rough way, but, as will be discussed, does not fully capture the complexity of their differences.

Table 43 gives evidence for the distinction between different constructions. Following the conventions set out in Croft (2001: 12), occurrence is indicated with  $\checkmark$  and nonoccurrence with  $\star$ .

<i>Construction</i>	<i>Form</i>	<i>Type I</i>			<i>Type II</i>	<i>Type III</i>	<i>Type IV</i>
		a	b	c			
argument of predicate	X + Type I	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\star$
linking element	<i>-næ</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\star$
exception marking	<i>-ti</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$
female marking suffix	<i>-mi</i>	$\star$	$\star$	$\star$	$\checkmark$	$\star$	$\star$
plural marker	<i>-le</i>	$\star$	$\star$	$\star$	$\checkmark$	$\star$	$\star$
compounding	L-H tone pattern	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$
source marking	<i>-si</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$
causative	<i>-zɹ</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
interrogative suffixes	varied	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
human agent	<i>-mu</i>	$\star$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
human non-agent	<i>-pu</i>	$\checkmark$	$\star$	$\star$	$\star$	$\star$	$\star$
negator	<i>mi-</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
applicative	<i>-wu</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
orientation prefix	varied	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$
inchoative aspect	<i>-ji</i>	$\checkmark$	$\checkmark$	$\checkmark$	$\star$	$\star$	$\star$

continuative aspect'	<i>tæ-</i>	√	√	√	*	*	*
person marking	varied	√	√	√	*	*	*
reduplication type II	X- reduplicate+ <i>hu</i>	√	*	*	*	*	*
property nominalizer	<i>-kɿ</i>	√	*	*	*	*	*
reduplication type I	tone pattern	*	√	*	*	*	*
'associated motion'	<i>-ki, -ly</i>	*	√	*	*	*	*

Table 43. Distribution-based typology of constructions in Yonghe Qiang

For Yonghe Qiang we can recognize four major types of Constructions, and at least three subtypes of Type I. The provisional names for the types are as follows:

- Type I – Yonghe Verbs
  - Type Ia – Stative Verbs
  - Type Ib – Active Verbs
  - Type Ic – Existential Verbs
- Type II – Yonghe Nouns
- Type III – Yonghe Ideophones
- Type IV – Yonghe Interjections

These are emergent categories, and can be imagined as ant hills (to borrow a metaphor from Steels 1995). In this case, the base layer, shared by all categories except Type IV is the ability to be linked by *-næ* (see Chapter 6). One might want to say that *-næ* is inherently flexible in that it can occur with different categories of constructions including ‘nouns’ and ‘verbs’, but this is just an inverse way of looking at the same situation. Another commonality between Types I-III is their ability to occur before certain Type I predicates. Consider the examples in (1-10), offered by Bai Jianqiong.

- (1) p<sup>h</sup>iteɿw t<sup>h</sup>é  
beer drink

‘to drink beer’, ‘beer-drinking’

- (2) p<sup>h</sup>iteÁw tápù-nì  
beer like-2S  
‘you like beer’
- (3) t<sup>h</sup>é tápù-nì  
drink like-2S  
‘you like to drink’, ‘you like drinking’
- (4) p<sup>h</sup>iteÁw t<sup>h</sup>é tápù-nì  
beer drink like-2S  
‘you like drinking beer’, ‘you like beer drinking’
- (5) bǎ<sup>1</sup> tápù-nì  
big like-2S  
‘you like em’ big’ OR ‘you like being big’
- (6) jé tápù-nì  
exist.animate like-2S  
‘you like to live’ or ‘you like being alive’
- (7) bíjbíjbójbó tápù-nì  
ideophone like-2S  
‘you like playing drums’
- (8) bíjbíjbójbó k<sup>h</sup>íj<sup>h</sup>k<sup>h</sup>íj<sup>h</sup>wáj<sup>h</sup>k<sup>h</sup>wáj tápù-nì  
ideophone ideophone like-2S  
‘you like playing drums and/while barking like a dog’

There are also smaller classes such as the Yonghe Adverbial marker *kátà* which can occur in this construction as well (9).

- (9) kátà tápù-nì  
thus like-2S  
‘that’s what you like’, ‘you like (it) so’, ‘you like (doing) that’, ‘you’re so happy’

This construction can also occur without any of these other constructions before the ‘predicate’, as in (10).

- (10) tápù-nì  
like-2S  
‘you like (it)’, ‘you (are) happy’, ‘(it makes) you happy’

One might want to call this position the head of a Noun Phrase because it bears a family resemblance to such constructions in English or other languages. It is unnecessary to say that Type I, Type II and Type III and also the form *kátλ* are all heads of Noun Phrases in this position. For example (8), it would be unclear which of the two Type III constructions is the head of the Noun Phrase.

Recall that in RCG we do not need to assume Nouns, Verbs, Subjects, Objects, or Noun Phrases *a priori* (Croft 2001) and I see no need to invoke those here. In English, we have clear evidence for a transformation of a Verb like ‘drink’ to the head of a Noun Phrase ‘drinking’ or ‘to drink’ through the gerundive and the infinitive. Yet there is no valid evidence for this in Yonghe. There is no morphological or phonological for any kind of derivation which would here transform the Qiang Type Ia Verb, ‘drink’, into a Noun Phrase. It is more empirical and simpler to just state that there is a Yonghe Predicating Construction which can have multiple types of constructions as an optional first part of the construction. Example (11) shows that this construction can be built up recursively and the order of the elements within each part is not random.

- (11) p<sup>h</sup>iteÁw t<sup>h</sup>é tápù jí-nì  
beer drink like say-2S

‘you said (that) (they) like drinking beer’

This example in (11) bears a close similarity to the way English constructions are built up using the structure N+V=NP. But again, there is no direct evidence for this kind of constituency in Qiang.

Type IV consists of what we might call ‘interjections’ that do not participate in any construction frames. Some examples include *ʔájà* ‘dammit’, *ʔòxó* ‘oh no!’, *jé* ‘oh my’, among others. These cannot be linked together with the *-næ* linking constructions and do not participate in any other construction slots.

Each unique type of construction frame, such as the female or plural marking suffix used with certain Type II constructions, represents another tier or layer of definition to that construction type. Viewed this way, we see that Verbs are the most highly evolved type of structure, and having three prongs with Type Ia and b and Type Ic being the most developed or differentiated, and the Existential Verbs less so.

Note that the constructions which distinguish Type II from Type I, *-mi* and *-le*, do not occur on all instances of Type II but on only a subset. This dissertation will not deal further with the ‘Yonghe Nouns’ (Type II) which would include sub-classification of this category.

Table 43 obscures some of the complexity of the situation for Type I. For example, the Existential Verbs can occur with an Associated Motion suffix, but only when also occurring with the imperative inwards orientational prefix.

Another example is that Table 43 excludes the copula, which takes the continuative aspect marker, but does not take orientational prefixes. The copula does not have any pattern of reduplication and takes a special negative marker *nì-*, unlike all over Verbs, which are

negated with an *mV*- prefix. One could find many more such examples of constructions which do not fit the mold exactly. In the interest of space, this dissertation will deal with these constructions individually but does not include all of them in Table 1.

Table 43 also does not account for the Yonghe Bipartite Verbs, which pose serious problems to the definition of ‘word’ in Qiang. Table 1 does not provide a clear-cut case for ‘wordhood’ in Yonghe Qiang. This is consistent with other Tibeto-Burman languages, in which there are partial or overlapping definitions for ‘words’ (see e.g. Post 2009; Schiering et al. 2010; Doornenbal 2009; Jacques 2020) making an unambiguous definition of ‘words’ problematic if not impossible. This fits with the Yonghe Qiang language itself. In Yonghe Qiang there is a form *sá* which means something like ‘utterance’ and can refer to any length of speech.

Note also that the distributional analysis (Croft 2001) does not give consideration to the shape of the constructions with respect to phonology. Therefore, distributional analysis alone does not fully capture the defining traits of some of these different construction types, some of which have special phonological characteristics. Consider the case of Type III, the Yonghe Ideophones. These constructions do participate in the *-næ* linking construction slot, but has not no unique construction frames in which they occur. However, the unique phonological form of the parts of speech themselves are definitional. Ideophones are, by definition, forms with unique phonological properties that distinguish them from other constructions which can be linked by *-næ*. The different types of ideophones attested in the corpus are as follows:<sup>47</sup>

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<sup>47</sup> This set of Ideophone types is probably not exhaustive, but is sufficient to show the differentiation in structure from other word classes. Note the English parallels for many of these Ideophones. For issues relating to iconicity and sound symbolism across languages and cultures (see Greenberg 1963; Haiman 1980; Croft 1990; Givón 1991; Newmeyer 1992).



- a. CV<sub>1</sub>.CV<sub>1</sub>
- b. CV<sub>1</sub>C.CV<sub>1</sub>C
- c. CV<sub>1</sub>.CV<sub>1</sub>.CV<sub>2</sub>.CV<sub>2</sub>
- d. CV<sub>1</sub>C.CV<sub>1</sub>C.CV<sub>2</sub>C.CV<sub>2</sub>C

Note that consonant codas are not found in constructions belonging to Type I or Type II (see Chapter 2). Examples of Type Ia are given in (12-13).

- (12) p<sup>h</sup>já.p<sup>h</sup>já  
'sound of slapping'
- (13) xú.xú  
'sound of an owl (cf. English 'hoot')

Examples of Type Ib are given in (14-16)

- (14) tɛ<sup>h</sup>ý<sup>h</sup>k.tɛ<sup>h</sup>ý<sup>h</sup>k  
'sound of a small bird (cf. English 'chirp').
- (15) p<sup>h</sup>ák.p<sup>h</sup>ák  
'sound of something falling (cf. English plop')
- (16) gýl.gýl  
'sound of sneaking about'

An example of Type Ic is given in (17).

- (17) pí.pí.pá.pá  
'sound of small animal walking (cf. English pitter-patter).'

Examples of Type IV are given in (18-20)

- (18) híŋ.híŋ.hón.hón  
'sound of a large animal walking through thick brush'

- (19) bíŋ.bíŋ.bón.bón  
 ‘sound of beating a drum; shamanizing’ (cf. English ‘bang’)
- (20) k<sup>h</sup>íŋ.k<sup>h</sup>íŋ.k<sup>h</sup>wáŋ.k<sup>h</sup>wáŋ  
 ‘sound of dogs on a hunt’

Aside from ideophones, we also find phonological distinctiveness to be relevant for the other categories such as Type Ic, the Existential Verbs. These Verbs, which constitute a small set, have the same rhyme and show no tone class differences: *jé* (animate), *sé* (inanimate), *jyé* (attached), and *lé* (contained). Like other emergent structures, such as paths through a field, these shapes are not purposefully created outcomes, but are too regular to be pure accidents. In the case of the Existential Verbs, they are probably the result of phonological convergence.

Lastly, the Active Verbs have six different inflection classes based on tone whereas the Stative Verbs have only four. Lastly, many, but by no means all, of the Active Verbs end in *-te* whereas none of the Existential or Stative Verbs have this ending.

For Yonghe Qiang, there is little or no derivation of Type I from Type II. Thus, unlike in English one doesn’t ‘foot’ a bill or ‘elbow’ someone. While a definition based on negatability serves to distinguish Nouns and Verbs in most cases, there is, however, overlap in Verbs and certain Numeral Classifiers. Thus, *ts<sup>h</sup>wá* ‘to chop’ vs. *sà ts<sup>h</sup>wá* ‘three chops’. These cognate object verbs are found in other Tibeto-Burman languages, such as Lahu (Matisoff 1996). For the Cognate Object Verbs in Yonghe, it appears that the direction of derivation is from the Yonghe Verb to the Yonghe Nouns, but there is no way to be certain

about the directionality. It may be more productive to think of these constructions as inherently flexible rather than undergoing a derivation in either direction.

As this chapter is the first of three on the Verb-complex, it will introduce the Yonghe Verb template, though the main focus of this chapter is on the Yonghe Verb stem and the three major subtypes of Yonghe Verbs: Active, Stative, and Existential.

### **4.1.1 Overview**

The remainder of this chapter is organized as follows. The verbal template is introduced in 4.2. Verb stems are introduced in 4.3. Active Verbs are discussed in 4.4. Stative Verbs are discussed in 4.5. Existential Verbs are discussed in 4.6. The copular verb is discussed in 4.7. Noun incorporation is discussed in 4.8. Bipartite Verbs are discussed in section 4.9. The incorporation of Chinese borrowings into the Qiang Verb is discussed in 4.10. A chapter summary is given in 4.11.

## **4.2 The Verb-template**

The Qiang verbal morphology is basically agglutinative, with both prefixes and suffixes. There is, in many cases, a degree of fusion for the prefixes and suffixes. Fusion is more commonly found in the prefixes, but is also found in the suffixes, particularly the Associated Motion suffix, and the first-person marking suffix. Building on work by Evans (2004), this section introduces the templatic nature of the Qiang Verb-complex.

There are four prefixal slots and five suffixal slots. The minimal Verb is a bare stem, in which the zero marking expresses imperfective aspect for non-speech-act-participants. An

example of a bare Verb is given in (21). An example of an inflected Verb from connected speech is given in (22).

- (21) ká  
 be.able  
 ‘(the lighter) can (light the juniper)’.
- (22) pàè-dzỳpá fiè-mè-tàè-dzý-kì-j  
 pig-foot ORT:down-NEG-CONT-bring-AM:go-EVID  
 ‘(she) hadn’t yet gone to bring down the pig foot.’

The template can be represented as follows:

ORT-MOOD.1-CONT-STEM-CAUS-AM-APPL-ASP-AUX-MOOD.2-PERSON/EVID

Table 44 presents the elements that can occur in each constructional slot.

		<i>Slot</i>	<i>Numbers</i>
-3	tV- ‘up’ fiV- ‘down’ sV- ‘downriver’ nV- ‘upriver’ ʔV- ‘in’ hV- ‘out’ dzV- ‘towards’ dV- ‘away’	Orientational markers	8
-2	mi- NEG tΛ(si)- PROH	Negatives Prohibitive	5

	ta- 'where' ni- 'what'	Interrogatives	
-1	ei- REC tæ/a- CONT	Recent past Continuative aspect	2
0	Σ-TYPES I-IV	STEM	4
+1	-za 'make'	Causative	1
+2	-ki 'go' -ly 'come'	Associated Motion	2
+3	-wu APPL	Applicative	1
+4	-wa PROS	Prospective aspect	3
	-ji CSM	Change of state marker	
+5	-mi 'have' -ma 'are' -tea 'where' -teima 'why' -sa HORT	Interrogatives Adhortative mood	4
+5	-a 1 -ei 1:NVOL	Verb final endings	9

	-ni 2S		
	-j 2PL		
	-j EVID		
	-nu IMP		
	-mbo POL		
	-næ LNK		
	-la COND		

Table 44. The Yonghe Qiang verbal template

The affixal slots have varied internal paradigmatic complexity. Some slots, such as the causative (+1), show only a privative opposition. Others are highly schematic. For example, the orientational prefix slot (-4) may be occupied by one of eight different orientational prefixes, or be left empty, yielding nine different possibilities. Certain prohibitions on co-occurrence are construction specific and do not apply to entire slots. However, the Verb *dĩ* ‘to have done before’, cannot occur with the present tense question marker *-má* (\*‘Are you ever Xed?’) or the adhortative marker *-sà ~ sá*. \*‘Let’s have Xed!’.

### 4.3 Yonghe Verb stems

Some conservative varieties of Qiang have causative and simplex verbal pairs distinguished by onset voicing. These sets are thought to come from derivational processes in Proto-Tibeto-Burman (see Gates et al. *forthcoming*). For example, the Shiguzi *k<sup>h</sup>.lə* ‘to break (a rope)’, vs. *g.lə* ‘to be broken (of a rope)’.<sup>48</sup> The Mawo variety has several such pairs. The Ronghong

<sup>48</sup> These are thought to be a reflex of an anti-causative marking \*N- prefix. For a discussion of the history of these types of forms in the family, see Lai et al. (2020).

variety has only three pairs (LaPolla & Huang 2003). In Yonghe we find no pairs of this type. For example, the cognate form *kʰɑʰ* ‘break’ may be used either causatively or to denote a state of being broken. Thus, this element of complexity found in some varieties has been smoothed out in Yonghe Qiang.

In many languages, verbs may be organized into different valency classes depending on the number of core arguments that they take (Dixon 2010: 125). Yonghe Qiang has intransitive, transitive, ditransitive verbs, and some labile verbs. One such verb is *dzi* ‘to eat’, which can be either transitive or intransitive. Some intransitive verbs can be made into transitive verbs through the addition of the applicative suffix. For example, *ji* ‘to speak’ vs. *ji-wù* ‘to tell’ (lit. to speak to). Valency changing derivations will be discussed further alongside the discussion of suffixes in Chapter 6.

As discussed above, there is an important distinction to be made between *active* and *stative*, and Existential Verb stems. The following sections lay out the attributes of each of these types.

#### **4.4 Active Verbs**

Active Verbs are defined as those which take the first of two reduplication patterns and which take the Associated Motion suffixes. Active Verbs have a larger number of inflection classes than the other two types and can be classified (with few exceptions) as one of four types based on tonal behavior. A subset of the Active Verbs has a fossilized [-te] suffix. Another individuating characteristic of the Active Verbs is that they can take the Associated Motion suffixes whereas Stative and Existential Verbs do not. Lastly, Active Verbs are the

only Yonghe Verbs with stem alternations. This section will explore each of these characteristics of Active Verbs.

#### 4.4.1 Inflection classes for Active Verbs

Inflectional irregularities are of interest for historical linguistics. Antonov & Jacques (2014) have pointed out irregularities and stem alternations for other northeastern Tibeto-Burman languages such as Tangut and Pumi and Rgyalrongic. J. Sun (2000) uses shared irregular stem alternations to argue for a cladistic relationship Rgyalrongic.

An analysis of the monosyllabic stems suggests, with few exceptions, that stems can be classified into one of four primary types. The latent contrast becomes evident when examining the tonal behavior in differing inflectional contexts. Table 3 gives an example of Verbs of each four Types in three different frames: the adhortative mood (HORT) ‘let’s X!’, the imperative+associated motion frame ‘go and verb!’ (ORT:IMP-Σ-AM:go), and the perfective aspect (ORT:PFV-Σ-EVID) ‘s/he verbed’.

Type I stems have an invariant high tone. Type II stems have low tone except for in the perfective aspect. Type III stems are like Type II, but have low tone in the adhortative mood where Type II has a high tone. Type IV stems are like Type I, but have low tone in the imperative+associated motion and perfective frames. Table 45 gives a list of one of each tonal type.

<i>Type</i>	<i>Σ-HORT</i>	<i>ORT:IMP-Σ-AM:go</i>	<i>ORT:PFV-Σ-EVID</i>	<i>Gloss</i>
I	k <sup>h</sup> á <sup>1</sup> -sà	ʔá <sup>1</sup> -k <sup>h</sup> á <sup>1</sup> -kì	fiá <sup>1</sup> -k <sup>h</sup> á <sup>1</sup> -j	‘break’
II	hù-sá	ʔà-hù-kí	ʔà-hú-j	‘cook’
III	kjè-sá	ʔè-kjé-kì	dè-kjé-j	‘open’



IV	t <sup>h</sup> é-sà	ʔé-t <sup>h</sup> è-kì	sí-t <sup>h</sup> è-j	‘eat’
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Table 45. Inflection classes for monosyllabic Verb stems

There are only two stem types for disyllabic Active Verbs: high-initial (Type I) and high-final (Type II). Table 46 gives examples of these types.

Type	$\Sigma$ -HORT	ORT:IMP- $\Sigma$ -AM:go	Gloss
I	látè-sà	ʔà-látè-kì	‘fly’
II	l <sup>h</sup> áté-sà	ʔ <sup>h</sup> à-l <sup>h</sup> átè-kì	‘sprinkle’

Table 46. Tonal classes for disyllabic Active Verbs

#### 4.4.2 Reduplication of Active Verb stems

In Yonghe Qiang we find different types of reduplication of Verb stems depending on the type of verb. For Active Verbs, complete reduplication is used as an iconic marker of repetition of activity. Table 47 gives examples of this type of reduplication with monosyllabic and disyllabic stems.

Type	Form	Gloss	Reduplicated	Gloss
1.1	k <sup>h</sup> á <sup>1</sup>	‘to break’	k <sup>h</sup> á <sup>1</sup> =k <sup>h</sup> á <sup>1</sup>	‘to break and break’
1.2	kǐ	‘to go’	kí=ki	‘to go and go’
1.3	kjé	‘to open’	kjé=kjè	‘to open and open’
1.4	t <sup>h</sup> é	‘to drink’	t <sup>h</sup> é=t <sup>h</sup> è	‘to drink and drink’
2.1	wújè	‘to call’	wújé=wújè	‘to call and call’
2.2	zítá	‘to say	zítá=zítà	‘to say and say’

Table 47. Reduplication of Active Verb stems

For the monosyllabic reduplicated forms, the second syllable is lengthened slightly. This will not be represented here. Note that the two tonal patterns are neutralized within this frame. All four inflection types have the same tonal shape when put into this frame. For the disyllabic forms, both types have the pattern L-H-L-L. Examples from connected speech are given in (23-24).

(23) zítá=zítà kátà sí-kà¹-j  
 talk=RED thus ORT:downstream-go.PFV-EVID  
 ‘He talked and talked as he went downstream’.

(24) a. tʂà nàpá¹ ʔé-j tà-ʂá-næ  
 then rock one-CLF ORT:up-take-LNK  
 ‘then, taking up a rock’

b. kà.nú  
 1S.REFL  
 ‘I myself,’

c. wùjé=wùjè kátà  
 call-RED thus  
 ‘calling and calling,’

d. ɛ́yɛ́y tsí-tà wùjé=wùjè kátà tɛ́w kjèn-tsa ʔè-tʰjæ  
 soul this-CLF call=RED thus just house-here ORT:in-put:1  
 calling and calling this soul, I set the rock down at home’

For these reduplicated forms, the initial form can be understood as being the base and the final form seen as the reduplicant. This is because the base form retains the tonal melody of the citation form, whereas the reduplicant has a muted pitch pattern. Pitch traces of the form [wùjé-wùjè] ‘call=RED’, from (24c) are given in Figure 63.

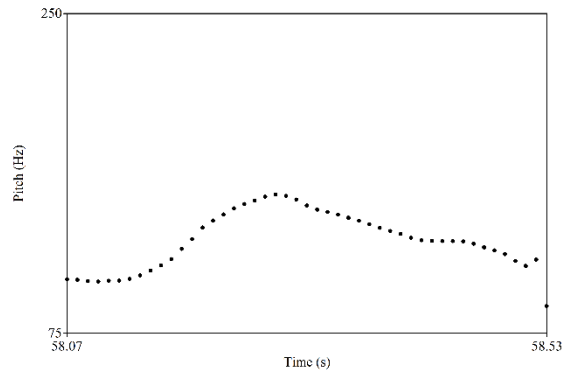


Figure 63. Pitch traces of *wùjé=wùjè* from example (24c)

Note that there is only one peak, corresponding to the second syllable of *wùjé=wùjè* and that the tone pattern is neutralized for the reduplicant.

#### 4.4.3 Active Verbs with the *-te* formative suffix

In Yonghe, we find many examples of disyllabic Active Verbs in which the second syllable is *-te*. Table 48 compares Verbs with this suffix in Yonghe with cognate Verbs in the Ronghong (LaPolla & Huang 2003) and Longxi (Evans 2001a) varieties.

<i>Longxi</i>	<i>Ronghong</i>	<i>Yonghe</i>	<i>Gloss</i>
--	--	ts <sup>h</sup> útè	‘to kick’
--	--	tʂútè	‘to bind’
--	--	te <sup>h</sup> ýtè	‘to flip’
--	--	teǎtè	‘to blink’
--	--	zítè	‘to play’
--	--	màté	‘to rub’
--	--	lǎté	‘to sprinkle’
ʒa	ʒɛ	jétè	‘to write’
lá	la	látè	‘to fly’
ts <sup>h</sup> ó tà	χsutu	sútè	‘to dance’
ɛí dà	ɛete	xítè	‘to smell’
--	wəte	wǎtè	‘to stir’
ts <sup>h</sup> uá dà	ts <sup>h</sup> uate	ts <sup>h</sup> wátè	‘to chop’
zà tá	zɛte	zétè	‘to pound’
ŋá tá	ɲete	nǎtè	‘to lick’
p <sup>h</sup> ú tà	p <sup>h</sup> əte	p <sup>h</sup> útè	‘to spit’
ɛué dà	sue	swétè	‘to peel’
za	zei	zǎté	‘to cry’
--	mə <sup>1</sup> ʒ	mútè	‘to search’
	qəti, qəta	kǎté	‘to beat’
--	ɛe	lítè	‘to fry’
	ʂe	éitè	‘to drag’

--	p <sup>h</sup> ete	--	'to pat'
----	--------------------	----	----------

Table 48. Verbs with the -tV formative suffix in three Qiang varieties

For the Ronghong variety, LaPolla & Huang (2003) recognize these verbs as a special subtype of verbs. In Ronghong, these verbs end in either [-te] or [-tu] depending on the preceding vowel. In the southern Longxi variety, there is a similar verb ending [-ta].

Table 48 shows that Yonghe has a greater number of verbs with this suffix than the Ronghong and Longxi varieties. Not all Yonghe Verbs with this suffix have corresponding cognates in other varieties. Also, some Verbs that have the suffix in Yonghe have cognate forms in other varieties which do not have the suffix. An example of this type is the Verb 'to fly': Yonghe *látè* vs. Ronghong *la* 'to fly', Longxi *lá* 'to fly'.

In Ronghong, verbs with the -tV formative suffix typically do not have the suffix when used in context (LaPolla & Huang 2003: 122). In Yonghe, however, the -te element is not dropped. An example is given in (14) of the Verb 'to search', with the formative suffix maintained on the inflected Verb.

- (25) tsù-t<sup>h</sup>ó.t<sup>h</sup>ò            ʔλ-tá            dzí-mùtè-kì-nàè  
water-bucket            one-CLF            ORT:towards-search-AM:go-LNK  
'(he) went to look for a water bucket and then...'

In Yonghe, there is evidence that the -te element is not a core part of the Verb stem, as it is not present in certain registers. Consider example (26), taken from a Yonghe Qiang epic poem in which many lines have a fixed meter: 1-2-3-4, 1-2-3 and a fixed tonal melody L-H-L-L H-L-L. Note again the use of tone to demarcate a certain construction type, in this case,

the ritual language register. Note that the Verb ‘to drag’ does not have the *-te* element in these lines of the poem.

- (26) a. *bà mí-kà-nà éi-teilàè*  
 carry NEG able-LNK drag-?  
 ‘When (Father Bumo) couldn’t carry (barking deer), (he) dragged (him)’
- b. *èi mí-kà-nà bǎe-teilàè-nǎe*  
 drag NEG-able-LNK carry-?-LNK  
 ‘When (Father Bumo) couldn’t drag (barking deer), (he) carried (him)’

Regarding the possible diachronic origins of this suffix, there are too many Active Verbs with this shape for it to be merely a coincidence, yet the function of the *-te* element is unclear. Note that all of the verbs in Table 1 are Active Verbs and none are Stative or Evidential Verbs. The majority of the Verbs involve actions with agents and patients. However, at least some, such as *látè* ‘to fly’ do not fall into this category. The origins or functions of this suffix are still opaque, but the recognition of these forms in Yonghe brings us one step closer to a full history of these Qiang verbal formatives.

#### 4.5 Stative Verbs

The Stative Verbs express property concepts and correspond to what would be adjectives in English (see LaPolla & Huang 2003; LaPolla 2004). Whereas Active Verbs can be either monosyllabic or disyllabic, Stative Verbs are only monosyllabic. There are two tone classes for Stative Verbs. The difference between these tone classes can be seen in the reduplicative construction involving Stative Verbs discussed below.

### 4.5.1 Reduplication of stems

There is a reduplicating construction unique to a subset of Verbs. The reason why this particular subset can occur in this construction and not others is unclear. This construction involves both reduplication and also the addition of a formative suffix *-hú* to give the meaning ‘to be X-er than X’. This is a restricted and idiomatic construction. An exhaustive list of examples found thus far are given in Table 49.

<i>Form</i>	<i>Gloss</i>	<i>Reduplicated</i>	<i>Gloss</i>
tsǎ	‘to be small’	tsǎ=tsǎ-hú	‘to be smaller than small’
bǎ <sup>1</sup>	‘to be big’	bǎ <sup>1</sup> =bǎ <sup>1</sup> -hú	‘to be bigger than big’
lǎě	‘thick (of snow)’	lǎě=lǎě-hú	‘to be thicker than thick’
teý	‘deft’	teý=teý-hú	‘to be defter than deft’
bǐ	‘to be thin’	bǐ=bǐ-hú	‘to be thinner than thin’
bú	‘to be tall’	bú=bú-hú	‘to be taller than tall’
şá	‘pretty’	şá=şá-hú	‘to be prettier than pretty’

*Table 49.* Reduplication of Stative Verbs

Again, the initial form can be considered the base, as it retains the citation tone and the final form can be considered the reduplicant as it has an invariant low tone. Again, we see the use of segmental morphology and tone coming together to demarcate a construction type.

While both Active and Stative Verbs can be nominalized, they take different nominalizers. This will be discussed further in Chapter 6 on verbal suffixes.

## 4.6 Existential Verbs

Like other languages of western Sichuan (Chirkova 2012: 162; Huang C. 2013), Yonghe Qiang has a robust set of Existential Verbs used for predicating different types of existence and location. Unlike the active and Stative Verbs, the Existential Verbs do not have a pattern of reduplication.

The Verbs that form a paradigm are *jé* (animate), *sé* (inanimate), *jyé* (attached), and *lé* (contained). The Verb *hú* is used for predicating non-locative existence. The following sections give examples of each of these Verbs.

### 4.6.1 The Verb *hú*

The most general of the Verbs is the simple existential *hú*, which has no locational function. It denotes that something exists or is available or accessible; if negated, it indicates that something does not or no longer exist. Example (27) is from a conversation about wild mushrooms.

- (27) *súkà*                      *mò-hú-j*  
wintertime NEG-exist-EVID  
'(wild mushrooms) don't exist in the wintertime'.

This Verb does not predicate location and does not share the same phonological shape, *Ce*, as the Existential Verbs.

### 4.6.2 The Existential Verb *jé*



The Existential Verb *jé* is used for animate entities. Example (28), a portion of a traditional song shows the use of *jé* for animate entities such as gods, tigers, and government officials.

- (28) a. ʔo ʂwa lo ti ʂo:: si-jé            zípù    k<sup>h</sup>wèteí            wú-næ            o ʂwa lo ti  
           ʂo  
           refrain            god-exist            land    Yonghe            COP-LNK            refrain  
           ‘Yonghe is a land where deities live’
- b. ʔo ʂwa lo ti ʂo:: hwλ<sup>1</sup>-jé            zípù    k<sup>h</sup>wèteí            wú-næ            o ʂwa lo ti  
           ʂo  
           refrain            tiger-exist            land    Yonghe            COP-LNK            refrain  
           ‘Yonghe is a land where tigers live’
- c. ʔo ʂwa lo ti ʂo:: zi-jé            zípù    k<sup>h</sup>wèteí            wú-næ            o ʂwa lo ti  
           ʂo  
           refrain            official-exist            land    Yonghe            COP-LNK            refrain  
           ‘Yonghe is a land where government officials live’

One of the basic meanings of the Verb is ‘live’ or ‘reside’. When paired with the upwards marking orientational prefix, it has the meaning of ‘to arrive’. An example is given in (29).

- (29) sí-kλ<sup>1</sup>-næ                                    xλ<sup>1</sup>lý            tè-jé-næ-ni  
       ORT:downriver-go.PFV-LNK    Mao County    ORT:up-arrive-LNK-TOP  
       ‘He went downstream and having arrived in Mao County...’

It also has the meaning of ‘to sit’. Example (30) is a sentence from a story where a woman welcomes a guest into her home.

- (30) hwásé                                    ʔè-jé-mbǒ  
       EXCL                                    ORT:in-live/sit-2S:POL  
       ‘Ah, please sit!’

Note that a verb with a dual meaning of ‘live/sit’ is not uncommon in the language family (see LaPolla 2013).

#### 4.6.3 The Existential Verb *sé*

The Verb *sé* is used to predicate the existence of inanimate objects. An example of this Verb is given in (31).

- (31) nɔ́pá¹      ʔɔ́-tújtúj      sé-j      tʰí  
 rocks      one-CLF      exist-EVID      there  
 ‘There was a pile of rocks, over there.’

This Verb can be used with a directional prefix with the meaning ‘to put’. An example is given in (32).

- (32) ɛ̀i-háé¹      tʰí      fiè-sé      dzàémáé tʰí      fiè-sé-wuna  
 cow-feed      there      ORT:down-put      lunch      there      ORT:down-place-TOP  
 ‘(She) put down the cow feed and having put down the lunch there...’

Another fixed usage of this Verb is the Verb ‘to take’ or ‘to put’ a wife. This usage reflects traditional marriage arrangements. The following is an example from a traditional story involving patrilocal polyandry.

- (33) b̀l̀lé-lò      ʔè-tɛ́í      ʔè.éy      dzi-sé-sà      ʔó  
 wife-TOP      one-all      together      ORT:towards-put-HORT      DISC  
 ‘As for a wife, let’s take one together, eh?’ (the two brothers said).

#### 4.6.4 The Existential Verb *lé*

The Verb *lé* is used to predicate existence within a container. Example (34) is from a traditional story about building a well.

- (34) ʔèlé            tsétsè            tsú    mè-lé-j  
 2PL            here            water   NEG-have-2PL  
 ‘You all don’t have water here’

Example (35) shows that *lé* can be used for animates as well, but with a focus on the contained aspect of the predicated object.

- (35) wǎjíwùtsá kùkù-há            tɛǎw wǎjí ... wǎjí-tɛy̆    jǐ-j    lé-j  
 bird nest    inside-LOC    just bird    bird-DIM    two-CLF exist-EVID  
 ‘Inside the bird nest there were two baby birds.’

This Verb can also be used metaphorically to talk about abstract properties such as age (36), strength (37), or ability (38).

- (36) ká    té-pù            lé    hǎ-pù            lǎ<sup>1</sup>zì-ɛy̆-kjǎe  
 1s    seven-year    exist    that-year            book-study-AM:go:1  
 ‘When I was seven, I went to school.’

- (37) míe            kǔ            mè-lé-mù-næ            wàwá-lè  
 person    strength    NEG-have-NMZ-LNK            child-PL  
 ‘People without strength and small children ...’

- (38) ʔèlé mǎ    tɛǎw tɕhùɛé    ʔá-w    lé  
 2pl mother just    ability    one-CLF exist  
 ‘Your mother has some (peppercorn picking) skills!’

#### 4.6.5 The Existential Verb *jyé*

The Verb *jyé* is used to predicate attached entities. Examples of physical entities with literal attachment are given in (39-40).

- (39) xwá.teáw m̀è-jyé-jì-j  
 peppercorn < Ch. NEG-exist-CSM-EVID  
 ‘There aren’t any more peppercorn (on this tree)’
- (40) zwètú jät̀ k<sup>h</sup>wán-t<sup>h</sup>à kát̀ jyé  
 road very wide-BOR thus exist  
 ‘(the) road is very wide (lit. exists in a wide way).

The Verb *jyé* can also be used to define negative space (i.e., absence of an expected substance, as with a hole in a piece of cloth or absence of cellphone service) see Sims & Genetti (2017) for more examples. The Verb *jyé* can also be used to predicate abstract properties such as likeness or traits. An exhaustive list of these types of constructions as attested in the corpus is given in Table 50.

<i>Form</i>	<i>Gloss</i>	<i>Form</i>	<i>Gloss</i>
dzǎ	‘to be ashamed’	dzǎ-sì jyé	‘to be shameful’
k <sup>h</sup> ú	‘to hate’	k <sup>h</sup> ú-sì jyé	‘to be detestable’
hà <sup>h</sup> á <sup>h</sup>	‘to annoy’	hà <sup>h</sup> á <sup>h</sup> -sì jyé	‘to be annoying’
kǔ	‘to be scared’	kǔ-sì jyé	‘to be scary’
kùpá <sup>h</sup>	‘to irritate’	kùpá <sup>h</sup> -sì jyé	‘to be irritating’
bèdý	‘to think’	bèdý-sì jyé	‘to be worth considering’

Table 50. Nominalized constructions with the Existential Verb *jyé*

Note that Table 50 shows that this construction can take Active Verbs such as ‘to annoy’ and Stative Verbs, such as ‘to be scared’ as the first part of the construction.

An example from connected speech is given in (41).

- (41) ʔèlé jáw.tɔ̀w.tɛ̀w hál-tɔ̀ ʔá-w hà<sup>h</sup>há<sup>h</sup>-sì jyé kátɔ̀ wú-j  
2PL youngest.uncle that-CLF one-bit annoy-NMZ exist thus COP-EVID  
'Your youngest uncle is a bit obnoxious'

See Sims & Genetti (2017) for further discussion of the Yonghe Existential Verbs.

#### 4.7 The copula *wú*

There is a single copular Verb, *wú*, which has some unique properties. The copula can inflect for aspect and person and take evidential markers but does not take orientational prefixes.

The copula can be used in identificational constructions, attributive constructions, and after nominalized verbs. An example of an identificational usage of the copular Verb is given in (42).

- (42) tɔ̀-sí-næ tɛ̀w ʔù-wú-nì  
ORT:up-look-LNK just you-COP-2  
'(I) looked up and it was you (at the door).'

An example of an attributive usage is given in (43).

- (43) píe tsí-tɔ̀-wù-næ tɕwá kátɔ̀ wú-j  
father this-CLF-TOP rich thus COP-EVID  
'As for this father, (he) was so wealthy.'

An example of the copula occurring after a nominalized Verb is given in (44).

- (44) dé            jé-wà-næ            pǎ-teí-sì            wú-j  
 new year's arrive-PROS-LNK    pig-kill-NMZ COP-EVID  
 'when it's going to be newyears is (the day for) pig-killing.'

Unlike the Ronghong variety of Qiang, in which the copula does not take aspectual marking (LaPolla & Huang 2003), we find that in Yonghe the copula can take the continuative aspect prefix.

- (45) tsé    péteè            teɬw páw.kàn.tàw.fù    tà-wú-j  
 1PL    now            just *baogandaohu*    CONT-COP-EVID  
 'for us now it's still *baogandaohu* (policies)'.<sup>49</sup>

The copular Verb differs from all other Verbs in that it takes a special negating prefix *nì-*. All other Verbs have a negator beginning with a bilabial nasal [m-]. An example of a negated copula is given in (46).

- (46) jáw.teɬw.teɬw    nì-wú-j  
 youngest.uncle    NEG-COP-EVID  
 'it's not youngest uncle'

The copular Verb is probably cognate with Tangut 𐞗 [0508] *ɲwu* 2.1 < pre-Tangut \**ɲo* 'to be; right, true' (written as 𐞗 *ngu* in Tibetan transliterations of Tangut), Japhug Rgyalrong *ɲu* 'to be the case', and possibly with Tibetan 𐄧 *ngo.ma* 'veritably, truthfully' (see Jacques 2014: 61-62).

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<sup>49</sup> 包干到户 *bāogān dào hù* is the name of an economic reform policy that went into effect in rural China during the 'reform and opening' period.

## **4.8 Noun-Verb compounds**

Noun incorporation refers to the integration of Nouns into the Verb-complex. Yonghe Qiang exhibits some 'light' noun-incorporation (Mithun 1984). Yonghe Qiang demonstrates characteristics of Mithun's (1984) Type I incorporation as the argument is demoted and the incorporated Noun cannot be marked for definiteness. There is also prosodic evidence for this kind of incorporation. Prosodic evidence comes in the form of changes to either the Noun or the Verb. Yonghe Qiang does not exemplify characteristics of Mithun's Type II noun incorporation in that it does not permit another argument to take the role of the

argument that is removed via noun incorporation. Some examples of noun incorporation with Yonghe Active Verbs are given in Table 51.

<i>Noun</i>	<i>Verb</i>	<i>Composite</i>	<i>Meaning</i>
k <sup>h</sup> ý ‘dog’	éí ‘to release’	k <sup>h</sup> ý-éí	‘to hunt’
lé ‘rope’	té <sup>h</sup> í ‘to set’	lè-té <sup>h</sup> í	‘to trap’
téí ‘house’	tşí ‘to build’	téí-tşì	‘to house-build’
xǎ ‘incense’	tswé ‘to burn’	xý-tswé	‘to burn incense’
mú ‘fire’	p <sup>h</sup> ú ‘to blow’	mù-p <sup>h</sup> ú	‘to blow fire’
ts <sup>h</sup> é ‘goat’	tý ‘look’	ts <sup>h</sup> è-tý	‘to herd goats’
şí ‘feces’	éí ‘to release’	şì-éí	‘to shit’
bĭe ‘urine’	éí ‘to release’	bĭe-éí	‘to urinate’
tsú ‘water’	ýá ‘to pour’	tsù-ýá	‘to irrigate’
zú ‘field’	lí ‘to plow’	zú-lì	‘to plow fields’
pǎ ‘pig’	téí ‘to kill’	pǎ-téí	‘to slaughter pigs’
k <sup>h</sup> á <sup>1</sup> ‘rice’	pú ‘buy’	k <sup>h</sup> á <sup>1</sup> -pù	‘to buy rice’

Table 51. Monosyllabic noun and monosyllabic Verb stem composite forms.

The majority of composite forms in Table 51 have the high-final pitch pattern yet a few, such as *téí-tşì* ‘to house-build’, have the high-initial pitch pattern.

Examples of Type II-Type I ‘Noun-Verb’ compounds in which the Noun is monosyllabic, and the Verb is disyllabic are given in Table 52.



<i>Noun</i>	<i>Verb</i>	<i>Composite</i>	<i>Meaning</i>
dzý ‘door’	zétè ‘to strike’	dzý-zétè	‘to knock’
ɛý ‘tooth’	ɸùlá ‘to wash’	ɛý-ɸùlá	‘to brush teeth’
k <sup>h</sup> ʌ <sup>1</sup> ‘rice’	ɸùlá ‘to wash’	k <sup>h</sup> ʌ <sup>1</sup> -ɸùlá	‘to wash rice’
jý ‘horse’	ɛítè ‘to drag’	jý-ɛítè	‘to lead a horse’

Table 52. Monosyllabic noun and disyllabic verb stem composite forms.

For these examples, it is as if there is a slot, one syllable before the Verb, into which the preceding element fits, giving it a low tone. We see this with other verbs as well and not limited to the Active Verbs. Consider example (47), which involves the copular verb. In this example the second person singular pronoun, which can stand alone and has a high tone in isolation, is ‘pulled’ into this pre-verbal slot. This use of a L-H pattern, with the H tone serving to mark the stem is also found when there are multiple prefixes (see Chapter 5).

- (47) tɿ-sí-næ                      tɛʌw ʔù-wú-nì  
 ORT:up-look-LNK just you-COP-2  
 ‘(I) looked up and it was you (at the door)’.

The second person singular pronoun has high tone outside of this context, ʔú, but in this context it fits into the ‘preverbal slot’ and has a low tone. This is also the case for Existential Verbs. Examples (48-49) are offered by Bai Jianqiong.

- (48) tsù-lé-j  
 water-exist-EVID  
 ‘there’s water (in the cup)’

- (49) kỳ-lé-j  
 vegetable-exist-EVID  
 ‘there’s vegetables (in the pot)’

The forms *tsú* ‘water’ and *kỳ* ‘vegetable’ have high and low-(rising) tones in isolation respectively, but this tonal pattern is neutralized in this construction. Table 53 gives examples of disyllabic Nouns incorporated into monosyllabic Verbs.

<i>Noun</i>	<i>Verb</i>	<i>Incorporation</i>	<i>Meaning</i>
dzìkỳ ‘money’	zí ‘search’	dzìkỳ-zí	‘to dun for money’
zæǹ ‘song’	ts <sup>h</sup> wá ‘to sing’	zæǹ- <sup>h</sup> ts <sup>h</sup> wá	‘to sing’
lǎ <sup>1</sup> zì ‘book’	ὲy ‘study’	lǎ <sup>1</sup> zì-ὲy	‘to attend school’
zímù ‘spell’	tá ‘recite’	zímù-tá	‘to chant’

Table 53. Disyllabic nouns with monosyllabic verb stems

In these cases, we see a pattern of L-L-H that predominates. However, there are some exceptions such as in the case of ‘to attend school’. Thus, this pattern is a strong tendency but is not an absolute ‘rule’. The specific patterns for these constructions are not entirely predictable and must be learned. Table 54 gives examples of disyllabic nouns with monosyllabic verb stems.

<i>Noun</i>	<i>Verb</i>	<i>Incorporation</i>	<i>Meaning</i>
dzýpá ‘foot’	ὲitè ‘drag’	dzýpá-ὲitè	‘to limp’
dzýpá ‘foot’	sùtè ‘jump’	dzýpá-sùtè	‘to stamp one’s feet’
dzìkỳ ‘money’	zítè ‘to play’	dzìkỳ-zítè	‘to gamble’
dzìkỳ ‘money’	kútsù ‘earn’	dzìkỳ-kútsù	‘to earn wages’

Table 54. Disyllabic nouns with disyllabic verb stems

Although not all tonal combinations are attested, we see that, again, the tonal patterns are not entirely predictable and must be learned.

There are also a small number of sets of Noun-Verb combinations that occur as idiomatic doublets. These include *k<sup>h</sup>ỳ-εí lè-tε<sup>h</sup>i* ‘to hunt and trap (lit. dog-release, trap-set)’ and also *mù-p<sup>h</sup>ú jàen-tswé* ‘to smoke tobacco (lit. fire-blow smoke-burn)’. This construction pattern is marked with a L-H-L-H tonal melody.

Unlike Rgyalrongic languages (Jacques 2012), incorporated nouns may not be negated. Similar to the situation described in Lahu, another Tibeto-Burman language (Matisoff 1981 from Mithun 1984), negation of these constructions involves the placement of a negating morpheme immediately before the verb, in which case the noun can no longer be considered to be incorporated and is part of a separate phonological word. Example (50) gives two instances of this type.

- (50) ká jé                      k<sup>h</sup>ý    mè-εì-j-ǎ                      lé    mè-tε<sup>h</sup>ì-j-ǎ  
       1s   also                      dog   NEG-release-CSM-1                      trap   NEG-set-CSM-1  
       ‘I won’t hunt and trap anymore’.

## 4.8 Bipartite Verbs

There are some Bipartite Verbs. When these Bipartite Verbs are negated, the negating morpheme comes after the first element but before the second element. These bipartite verbs pose challenges for definitions of wordhood in Yonghe Qiang. This is also the case for bipartite verbs in Japhug Rgyalrong, which pose problems for definitions of wordhood in that language as well (Jacques 2020: 485). As previously mentioned, ‘Wordhood’ is not an unproblematic notion for many languages (see Schiering et al. 2010). Table 55 gives an exhaustive list of the Yonghe Bipartite Verbs found in the corpus.

<i>Form</i>	<i>Gloss</i>	<i>Negated</i>	<i>Gloss</i>
teè=kwa	'to fight'	teè=má=kwa	'to not fight'
zì=sá	'to be good'	zì=má=sà	'to not be good'

Table. 55 Bipartite verbs in Yonghe Qiang

These Bipartite Verbs have a tonal pattern of L-H in the affirmative mood and L-H-L when negated. There are very few instances of verbs of this type and more examples would be needed before anything more could be meaningfully said about them.

#### 4.9 Incorporation of Chinese forms into Yonghe Qiang

The incorporation of Chinese forms into the Qiang language is interesting for several reasons. Firstly, while Qiang and Chinese are related languages, they have radically different morphological profiles. Second, while the 'verb' is relatively well defined in Qiang (see LaPolla & Huang 2003: 121), these categories are much more difficult to pin down in Chinese.

Chinese forms are incorporated differently depending on whether they are monosyllabic or disyllabic. Like many other varieties of Qiang, Yonghe has a loanword marking suffix  $-t^h\grave{a} \sim t^h\acute{a}$  for Chinese verbs. Thus,  $xw\acute{a}n-t^h\grave{a}$  'to deceive' from Chinese 哄  $h\bar{o}ng$  'ibid. This suffix is a powerful tool for nativizing Chinese forms. The phonotactics of these incorporated forms were discussed in Chapter 2.

Disyllabic Chinese loans do not take the  $-t^h\grave{a} \sim t^h\acute{a}$  suffix but are treated as Type II Nouns and then subsequently 'verbalized' using the Qiang Verb  $ts\acute{u}$  'to do'. This is a complement taking Verb in Qiang. An example of this verb 'to do' is given in (51).

- (51) ʔó hé-pì tsú-ji-wù-j tì  
 EXCL that-CLF do-CSM-APPL-EVID DISC  
 ‘Well, (he) began to do those kinds of things to them.’

Examples (52-55) are from connected speech and illustrate Chinese forms being incorporated with the use of the Qiang verb *tsú*.

- (52) ʔètsùlé tʰwàné tsù-sá ʔó  
 1pl celebrate.newyears<sup>50</sup> do-HORT EXCL  
 ‘let’s celebrate the new year, eh?’

- (53) ɛàwʃwá mò-tsú-ɛí  
 be pious<sup>51</sup> NEG-do-NVOL  
 ‘I was not pious’

- (54) jísi tɛǎw xwàjí fìò-tsú  
 meaning<sup>52</sup> just suspect<sup>53</sup> ORT:down-do  
 ‘meaning that they were suspicious’

- (55) tákòŋ fìò-tsú-kì dì-mí-nì  
 work<sup>54</sup> ORT:down-do-AM:go have.done-Q-TOP  
 ‘Has (she) ever gone to do (migrant) work?’

Note that these borrowings are verbalized regardless of their internal makeup in Chinese.

Examples of the ‘Verb-Verb’ type are given in Table 56.

<sup>50</sup> From Chinese 团年 *tuánnián* ‘celebrate newyears’.

<sup>51</sup> From Chinese 孝顺 *xiàoshùn* ‘be pious’.

<sup>52</sup> From Chinese 意思 *yìsi* ‘meaning’

<sup>53</sup> From Chinese 怀疑 *huáiyí* ‘suspect’.

<sup>54</sup> From Chinese 打工 *dǎgōng* ‘work’.

<i>Chinese</i>	<i>Pinyin</i>	<i>Gloss</i>
讨论	<i>tǎolùn</i>	‘to discuss’ (lit. study-discuss)
怀疑	<i>huáiyí</i>	‘to suspect’ (lit. harbor-suspect)
孝顺	<i>xiàoshùn</i>	‘to be filially pious’ (lit. be pious-follow)
解放	<i>jiěfàng</i>	‘to liberate’ (lit. loosen-release)
相信	<i>xiāngxìn</i>	‘to believe’ (lit. think-believe)
培养	<i>péiyǎng</i>	‘to train (lit. accompany-foster)’

Table 56 Verb-Verb compounds

Examples of the ‘verb-object’ type are given in Table 57.

<i>Chinese</i>	<i>Pinyin</i>	<i>Gloss</i>
开会	<i>kāihuì</i>	‘to hold a meeting’ (lit. open-meeting)
打工	<i>dǎgōng</i>	‘to work a job’ (lit. hit-work)
结婚	<i>jiéhūn</i>	‘to get married’ (lit. tie-marriage)

Table 57. Verb-object compounds

At first glance, it appears possible that *tsú* ‘to do’ is itself a borrowing from Chinese 做 *zuò* ‘do’. However, a comparison with known loanwords, given in Table 58, suggests that this is a perhaps a coincidental similarity, as the vowel correspondence is unexpected for a loanword.

<i>Chinese</i>	<i>Pinyin</i>	<i>Yonghe</i>	<i>Gloss</i>
戳	<i>chuō</i>	ts <sup>h</sup> ó-t <sup>h</sup> à	‘to poke’
锁	<i>suǒ</i>	sòpú	‘lock’
做	<i>zuò</i>	tsú	‘to do’

*Table 58.* Comparison of *tsú* ‘do’ with Chinese loans

#### 4.10 Conclusion

This chapter has given an overview of the Verb-template, and discussed different types of Verb stems as well as sub-classes. The distributional method of RCG allows for classification of constructions into different types according to which frames they participate in. However, we have seen that this approach does not account for the fact that some of the resulting types also are further distinguished by phonological shape or by semantic traits. For example, the Existential Verbs are distinguished by distribution, by their phonological shape, and by their common semantics. This chapter has given some discussion of how Chinese loans are incorporated into the language. This is an interesting issue as Chinese does not have clear language-internal evidence for ‘parts of speech’, yet Qiang speakers borrow Chinese forms as Type II Nouns and then ‘verbalize’ them through light Verb constructions.

The following two chapters will give an in-depth account of how these verb stems interact with prefixes and suffixes and also delve into the morpho-phonological alternations that are present when affixes are used with the different stems.

## ***Chapter 5: Verbal Prefixes***

### **5.1 Introduction**

This chapter pertains to the verbal prefixes of Yonghe Qiang. Verbal prefixes are bound elements which come before the verb stem. There are eight orientational prefixes with spatial and aspectual meanings, two additional aspectual prefixes, a negative prefix, a prohibitive prefix, and three interrogative prefixes.

One typological metric along which prefixes in different languages may be evaluated is in terms of their degree of boundedness relative to a Verb-stem. In some languages, constructions which are normally affixal may occur independently as well. For example, English *anti-*, which can be used prefixally, ‘anti-corruption’, or as an independent form. ‘I’m not pro but I’m not anti’, or as a fused part of a form, as in words such as, ‘antithesis’, or ‘antiquated’. In Qiang prefixes are much less flexible. The Qiang prefixes are not used as standalone forms.

Another typological metric used for evaluating morphemes is along an inflection-deviation continuum. Derivational processes are often described as forming a new word from an existing word, whereas inflection modifies an existing word (see Crystal 1999). These types of definitions rely on a coherent definition of ‘word’. This is not possible for Yonghe Qiang, as is the case for many other Tibeto-Burman languages (Jacques 2019). Regardless, within the framework of construction grammar, these distinctions are irrelevant, as the resulting forms in both cases are constructions. Dixon (2010) notes that the distinction between inflection and derivation is neither useful nor necessary for some languages. This is the case for Yonghe Qiang, where some prefixes such as the orientational prefixes have



characteristics of inflection, in that they mark aspectual distinctions, and are obligatory in the perfective aspect. However, the directional prefixes also have some some unpredictable semantics, which is more characteristic of derivation. The idiomatic semantics of some of the prefix-stem collocations lend themselves nicely to an explanation within RCG, which was developed in part to help explain the presence of idioms, or forms with unpredictable semantics more generally.

Qiang prefixes exhibit significant morphophonological variation, which is stem-specific. For example, the Yonghe Qiang negating prefix has many segmental allomorphs which are conditioned by the stem. For example, the negating prefix mV- has different allomorphs when paired with different stems. Thus, *mà-ká* ‘unable’, *mà-ʂá* ‘unattractive’, and *mò-kú* ‘unafraid’, *mè-te<sup>hi</sup>* ‘unnecessary’. In addition to vocalic variation, Qiang negating prefixes exhibit tonal variation. The Qiang negating prefix can be either high or low depending on the tonal class of the verb stem. Example (1) illustrates both segmental variation and tonal polarity.

- (1)    *mé-t<sup>hè</sup>*                      *mà-ká*  
          NEG-drink/smoke    NEG-able  
          ‘to be addicted (lit. can’t not drink/smoke)’

The tonal class of the verb stem determines the tonal pattern for the different prefixes. For example, consider the tones of the prefixes with the verbs ‘come’ (Type II) and ‘eat’ (Type IV).

- (2)    a. *sì-lý*            ORT:downstream-come  
          b. *ʔè-lý*        ORT:in-come

- |     |                                     |                      |
|-----|-------------------------------------|----------------------|
|     | c. m <sup>h</sup> -l <sup>h</sup> y | NEG-come             |
|     | d. t <sup>h</sup> -l <sup>h</sup> y | CONT-come            |
| (3) | a. s <sup>h</sup> -t <sup>h</sup> e | ORT:downstream-drink |
|     | b. ʔ <sup>h</sup> -t <sup>h</sup> e | ORT:in-drink         |
|     | c. m <sup>h</sup> -t <sup>h</sup> e | NEG-drink            |
|     | d. t <sup>h</sup> -t <sup>h</sup> e | CONT-drink           |

The alternations are prefix specific, sometimes stem-specific, and also sensitive to the place of a prefix within a string of prefixes.

### 5.1.1 Overview

This chapter is organized as follows. Orientational prefixes are discussed in 5.2. Negative and prohibitive prefixes are discussed in 5.3. Section 5.4 briefly discusses a recent past prefix. The continuative aspect marking prefix is discussed in 5.5. Vowel harmony is discussed for each prefix, but a broad view of vowel harmony is given in 5.6. A summary is given in 5.7.

## 5.2 Orientational prefixes

Qiang dialects have between six and ten orientational prefixes (LaPolla & Huang 2003; Evans 2004; Evans & Huang 2007).<sup>55</sup> The Yonghe variety has eight. The prefixes occur in paired sets which indicate motion along four different axes: up-down, upstream-downstream, in-out, and towards-away.

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<sup>55</sup> These prefixes are also called ‘spatial prefixes’ or ‘directional prefixes’ in the literature.

One of the functions of these prefixes is to express spatial orientation for the verb. In this respect, their function is similar to that of phrasal verbs in English. For example, the Qiang forms  $\text{ʔ}\lambda\text{-tʂ}^h\lambda$  ORT:in-chase and  $h\lambda\text{-tʂ}^h\lambda$  ORT:out-chase can be translated into English as ‘chase in’ and ‘chase out’ respectively. They are also similar to English phrasal verbs in that there is a fair amount of idiomaticity and unpredictability of the pairings which must be learned. cf. English ‘throw in’, ‘throw out’, ‘throw up’, ‘throw down’, each of which has a more literal meaning and a more figurative meaning.

Of course, the prefixes are different from phrasal verbs in that they are bound and have no meaning when not prefixed to a verb. Another difference is that the prefixes are used to express perfective aspect. For example, the perfective form of the verb  $t^h\acute{e}$  ‘to drink’ is  $s\acute{i}\text{-}t^h\acute{e}$  ORT:downstream-drink. The perfective form for the verb  $s\acute{a}$  ‘to listen’ is  $\text{ʔ}\grave{a}\text{-}s\acute{a}$  ORT:in-listen ‘listened’. Non-motion verbs can take different prefixes with different shades of semantic nuance. A list of the Yonghe orientational prefixes is given in Table 59. The prefix vocalism, which dependent on the vowel quality of the verb stem, is represented here as <V>.

<i>Form</i>	<i>Gloss</i>	<i>Axis</i>
tV-	‘upwards’	vertical
hV-	‘downwards’	
nV-	‘upriver’	riverine
sV-	‘downriver’	
ʔV-	‘inwards’	containment
hV-	‘outwards’	
dzV-	‘towards’	cis/trans-locative
dV-	‘away’	

Table 59. Orientational prefixes of Yonghe Qiang

Yonghe orientational prefixes occur as the initial element of the verb. While they frequently attach directly to the verb stem, other prefixes can intervene. Many of the eight prefixes have multiple allomorphs stemming from segmental and suprasegmental allomorphy. While the segmental allomorphy is prefix specific, the suprasegmental alternations appear to be uniform across prefix types. See example (3) above.

The semantics of these orientational prefixes are complex. The verbal prefixes are used in the perfective aspect and also often as part of the citation form of the verb (LaPolla & Huang 2003; Huang C. 2004; Sims & Genetti 2017). Like other varieties of Qiang, Yonghe uses the ‘inward’ prefix as a default imperative marking prefix (see Evans 2004). However, unlike other varieties of Qiang, such as the Luoduo variety or the Mianchi variety (Evans 2001a), Yonghe Qiang does not have a ‘directionless’ or ‘general direction’ prefix that is used as a default perfective marker. Instead, verb stems take a range of subsets of the orientational prefixes which may lend orientational, aspectual, or modal meanings depending on context.

Example (4), taken from an elicited narrative by Yang Zhiquan, gives an illustration of the ubiquity of the orientational prefixes in the language. Mr. Yang recounts a time when he went from Ka’er Village to Lapu Village and encountered a ghost on the road during his return.

- (4) a. ká            hál-jàè            mùŋxwá  
          1S            that-night            sky.be.dark  
          ‘that night I,’
- b. nápù<sup>1</sup>-j-há            sí-kλ<sup>1</sup>-næ  
          PN-DAT-LOC    **ORT:downriver**-go.PFV-LNK  
          ‘having gone downstream to Lapu,’

- c. ǎpù      tǎ-tsu-næ  
ghost      **ORT:up**-meet.by.chance-LNK  
'and having ran into a ghost,'
- d. dō-kù-næsi  
**ORT:away**-fear-LNK  
'because I got scared,'
- e. nǎpá¹      ʔé-j      tǎ-ʂá-næ  
rock      one-CLF      **ORT:up**-pick.up-LNK  
'picked up a rock and,'
- f. kǎnú      kǎnú      wùjé=wùjè<sup>56</sup>      kǎtǎ      ʔè-lyáé  
1S.REFL 1S.REFL      shout=RED      thus      **ORT:in**-come:1  
'came in while calling to myself.'

Every perfective verb in this example takes an orientational prefix, but the relationships between the prefixes and the stems are varied. The general trend is for verbs of motion to take one of a subset of possible orientational prefixes and for non-motion verbs to have a one-to-one or 'fixed' collocation with one of the orientational prefixes in the perfective aspect. Example (4) illustrates both motion and non-motion verbs with the orientational prefixes. The first and last verbs, 'go' and 'come' are clearly motion verbs. The choice of prefix with these verbs is motivated by the speaker's perspective. The use of the downstream marker is because Lapu Village is downstream from the speakers' residence in Ka'er Village. The use of the inwards prefix in describes the speaker coming into his house upon return.

While there are motion verbs with flexible prefixation (e.g., 'come', 'go'), there are also motion verbs with rigid prefixation. This is the case for the verb ʂá 'to grab with one's hand'. This verb is clearly a motion verb, but it cannot take other directional prefixes. That is, the semantics of the verb are redundant with the semantics of the prefix.

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<sup>56</sup> This verb does not have a prefix as it is imperfective and reduplicated.

The verb *kũ* ‘to fear’ is obviously a non-motion verb and has a rigid (or ‘fixed’) collocation with the trans-locative prefix. For examples of this type, it is tempting to speculate as to why a prefix is the default prefix for a given verb. For the verb *kũ* ‘to fear’, it could be said that the choice of the *dV-* trans-locative prefix may have to do with beliefs about a person’s spirit being separated from ones’ body upon being frightened or witnessing something inauspicious (see Graham 1958). However, these kinds of explanations are speculative and in the absence of deep comparative work it is not possible to distinguish these kinds of explanations from folk-etymology.

Lastly, there are some verbs that are less clearly motion verbs. The division of verbs into motion and non-motion categories is not always clear cut. In example (4), the verb ‘to meet by chance’ ‘or to happen upon’, implies motion on part of the speaker, but the verb itself is not necessarily a motion verb.

Having introduced some of the general properties of Qiang prefixes, the following section will discuss the basic phonological and semantic characteristics of each of the eight orientational prefixes by pairs (5.2.1-5.2.4). Each section includes illustrations with waveforms and spectrograms, as well as formant measurements of the prefixes from a sample of the corpus. This is followed by a discussion of prefix-stem relationships (5.2.5), reduplicated verbal compounds with opposing orientational prefixes (5.2.6), and the use of prefixes with Chinese borrowings (5.2.7).

### **5.2.1 The vertical axis**

The vertical axis contains the */tV-/* ‘upwards’ prefix and the */hV-/* downwards prefix. Examples of this type are given in Table 60.

<i>Form</i>	<i>Gloss</i>
tè-kí	‘go up’
fiè-kí	‘go down’
tè-lý	‘come up’
fiè-lý	‘come down’

*Table 60.* Examples of motion verbs with vertical axis prefixes

These two prefixes are commonly used to mark perfective aspect. An example from connected speech is given in (5).

- (5) fiã      tɔ̀-swá-wù-j  
 very    ORT:up-to.be.full-APPL-EVID  
 ‘(the storage room) really filled up on them.’

For verbs which take a vertical axis prefix in the perfective aspect, most take either ‘up’ or ‘down’, though some can take both. Examples of verbs taking either ‘up’ or ‘down’ are given in Table 61.

<i>Form</i>	<i>Gloss</i>
tɔ̀-ʂá	ORT:up-grab
tè-bèdý	ORT:up-think
tɔ̀-bă <sup>1</sup>	ORT:up-big
fiɔ̀-tsǎ	ORT:down-small
fiɔ̀-lǎ	ORT:down-hot
fiò-tsú	ORT:down-do

*Table 61.* Verbs which take either ‘up’ or ‘down’ in the perfective aspect

There are other verbs, such as *zità* ‘to speak’ which can take either ‘up’ or ‘down’ prefixes resulting in the meanings ‘to tell’ and ‘to explain’, respectively. In addition, *zità* takes the ‘inward’ prefix in the imperative. Examples are given in (6a-6c).

- (6) a. *tà-zità*  
ORT:up-speak’  
‘to speak’
- b. *fià-zità*  
ORT-down.PFV  
‘to explain’<sup>57</sup>
- c. *ʔà-zità*  
ORT:in.IMP-speak’  
‘speak!’

An exhaustive list of the non-motion verbs in my corpus which can take both ‘up’ and ‘down’ in the perfective is given in Table 62.

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<sup>57</sup> This use is less common (Bai Jianqiong, personal communication) and has some of the negative connotations of English ‘talk down’.



<i>Form</i>	<i>Gloss</i>
tè-jý	‘to stand upright’
fiè-jý	‘to stand upside down’
tà-pá	‘to bloom (of flowers)’
fià-pá	‘to come out (of stars)’
tà-kú	‘to win’
fiò-kú	‘to lose’
tà-zítá	‘to tell’
fià-zítá	‘to explain’

*Table 62.* Verbs with flexible prefixation which take the vertical axis prefixes

Again, we see that the semantics of these pairings are somewhat idiomatic, and that this can be explained by positing that they are constructions within the framework of RCG.

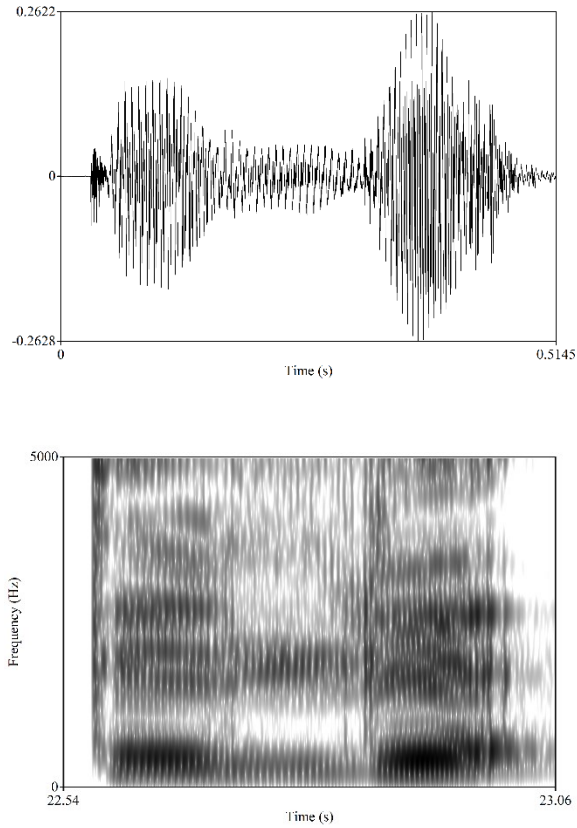
#### 5.2.1.1 *The upwards prefix tV-*

The upwards prefix is a voiceless alveolar stop with a variable vocalism. An example is given in (7).

- (7) tè-ly  
 ORT:up-come  
 ‘come up’

A waveform and spectrogram are given in Figure 64. The waveform and spectrogram are given to show the relative timing of the prefixes and the suffixes. In some Tibeto-Burman languages, prefixes are semi syllables or ‘sesquisyllabic’ (Matisoff 1973: 86). This is not usually the case in Yonghe Qiang. In many cases, the prefix-stem collocations with the L-H

tonal pattern have a long-short length pattern. Thus, the prefix has more phonetic substance than the stem.



*Figure 64.* Waveform and spectrogram of *tè-ly* ‘come up’

The segmental allomorphs of the ‘upward’ prefix are given in Table 63.

<i>Type</i>	<i>Prefix Form</i>	<i>Verb Form</i>	<i>Gloss</i>
I	t̀-	ʂá	‘to pick up’
	t̀-	sútè	‘to jump up’
	t̀-	pó	‘to become’
	t̀-	pá	‘to bloom’
II	tè-	lý	‘to come up’
	tè-	jé	‘to arrive’
	tè-	bǎe	‘to carry on one’s back’
	tè-	ɛí	‘to release’
III	t̀ <sup>1</sup> -	k̀ <sup>1</sup>	‘to go (stem II)’

Table 63. Allomorphs of the upwards prefix in Yonghe Qiang

Table 63 shows that there are three basic forms of this prefix. Note that vowels written with /i/, but which are phonetically apical vowels, do not trigger vowel harmony. Thus, when the ‘upwards’ prefix is paired with the verb *sí* ‘to look’, the form is [t̀-*sí*]. The prefixed form for the ‘upwards’ prefix when paired with the verb *ɛí* ‘to release’ is [tè-*ɛí*].

In careful speech of some older speakers, there is also rhotic harmony such that the prefix is [a<sup>1</sup>] before [a<sup>1</sup>] and [ʌ<sup>1</sup>] before [ʌ<sup>1</sup>]. The distinction between [a<sup>1</sup>] and [ʌ<sup>1</sup>] is very slight and often barely perceptible. For some speakers, the upwards prefix vocalism assimilates completely to [i] before verbs with high front vowels [i] and [y]. More evidence from speakers from different age groups and from different villages would be needed to draw conclusions about the nature of this variation.

Note that there is a tendency for the ‘upwards’ prefix vocalism to avoid the [æ] vowel space and the prefix vowel is [e] before [æ] rather than [æ] before [æ]. This is possibly due to

avoidance of homophony with the continuous aspect marking prefix [tæ-], as both can be the first and only prefix for a verb. Thus, *tɔ̀-tsà̀mɛ́* ‘looked up’ vs. *tæ̀-tsà̀mɛ́* ‘still looking’ (see discussion in 5.6)

### 5.1.1.2 The downwards prefix *hV-*

The ‘downwards’ orientational prefix is a voiced glottal fricative with a variable vocalism. This prefix exhibits similar allomorphy to the ‘upwards’ prefix, though there are some differences. A waveform and spectrogram are shown using the example form *hè̀-lý* ‘come down’ in Figure 65.

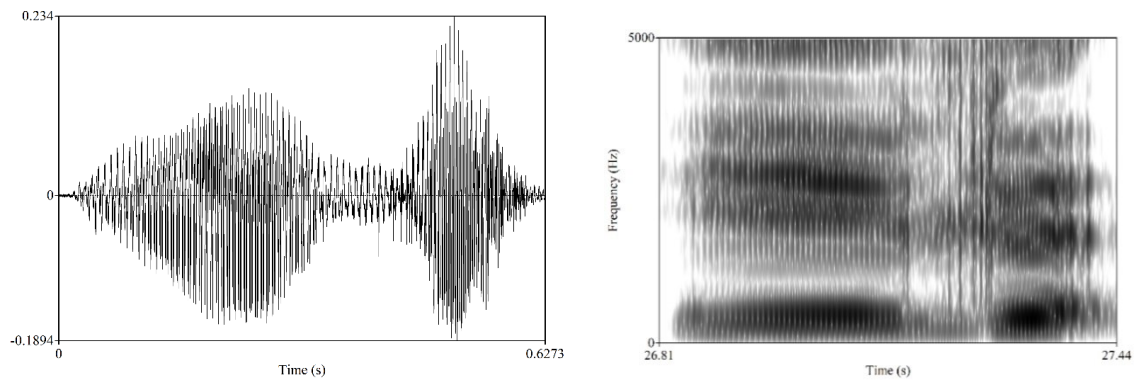


Figure 65. Waveform and spectrogram of *hè̀-lý* ‘come down’

Table 64 gives examples of the different vocalisms with which this prefix can occur with.

<i>Type</i>	<i>Prefix Form</i>	<i>Verb Form</i>	<i>Gloss</i>
I	fiλ-	sǎ	‘to spill’
II	fiò-	sútè	‘to jump’
III	hè-	lý	‘to come’
	hè-	lé	‘to give’
	hè-	tʰí	‘to put’

IV	fià-	látè	‘to fly’
V	fiǎ̀-	ts <sup>h</sup> wǎ̀é	‘to plant’
VI	fiǎ <sup>1</sup> -	kǎ <sup>1</sup>	‘to go’
VII	fiǎ <sup>1</sup> -	kǎ <sup>1</sup>	‘to peel off’

Table 64. Allomorphs of the *fiV*- ‘downwards prefix’

The downwards prefix vowel is close to [ʌ] before [ʌ] and [u], close to [e] before the front vowels [i], [e], and [y], closer to [a] before [a] and also closer to [æ] before [æ]. The downwards prefix vowel is sometimes rhotacized before [a<sup>1</sup>]. The downwards prefix also tends to rhotacize before verb stems with post-alveolar onsets, regardless of whether the vowel of the verb stem is rhotacized. Phonetically apical vowels do not trigger vowel harmony. Thus, *fiǎ<sup>1</sup>-tʃí* ‘to build’. Verb stems with [o] vowels are rare, and thus a combination of a verb stem with an [o] vocalism and a downwards prefix is as of yet unattested. Note that the ‘downwards’ prefix assimilates to [æ] before stems with [æ] whereas the ‘upwards’ prefix does not. An example from connected speech is given in (8).

- (8) hǎ-tǎ=hǎ            jǎmǎ fiǎ̀-<sup>h</sup>ts<sup>h</sup>wǎ̀é-j  
that-DEF=LOC    corn    ORT:down-plant-EVID  
‘There (they) planted corn.’

### 5.2.2 Riverine axis

The riverine axis prefixes are *nV*- ‘upstream’ and *sV*- ‘downstream’. The primary reference point for the use of this prefix is the Min River when speaking outside of the Yonghe Valley, and the tributary to the Min River when in the Yonghe Valley.

There are two noteworthy extended uses of this prefix. The first is when these prefixes are used to describe motion in relation to cultural spaces within the household. The ‘upstream’ and ‘downstream’ prefixes are used to denote motion towards or away from the seat of honor in the household, typically the seat closest to the altar near the fireplace. This household-internal orientation does not necessarily correspond to the direction of the local river (see Sims & Genetti 2017: 123).

Similar systems have been described for Ronghong Qiang (Huang C. 2015) and also for many Rgyalrongic languages, including Eastern Rgyalrongic: Situ (Lin Y. 2012: 37; Nagano 1984b), Tshopdun (J. Sun 2017), Japhug (Jacques 2008: 251-258, 2017), as well as Western Rgyalrongic languages such as Khroskyabs (Lai 2017: 79-80, 122-124).

This second extended use of this axis is when the prefixes are used to describe motion as ‘with’ or ‘against’ the natural flow of motion. For example, *sì-mátè* ‘to rub with the grain’ vs. *nà-mátè* ‘to rub against the grain’. The motivation for this extension, having to do with the ‘flow’ of motion is clear.

#### 5.2.2.1 *The upstream prefix nV-*

The upstream prefix is an alveolar nasal onset with variable vocalism. An example of the ‘upstream’ directional prefix is given in (9).

- (9) nè-ly  
 ORT:upstream-come  
 ‘come upstream’

A waveform and spectrogram are given in Figure 66.

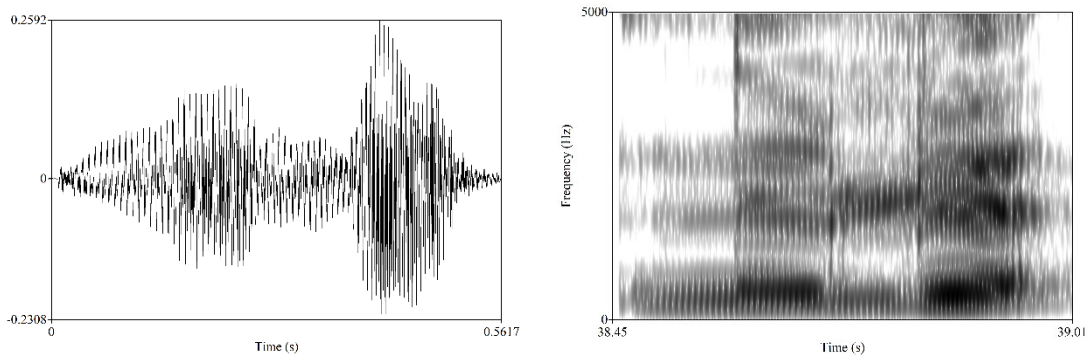


Figure 66. Waveform and spectrogram of *nè-ly* ‘come upstream’

Table 65 gives examples of the allomorphs of the upstream directional prefix.

Type	Prefix Form	Verb Form	Gloss
I	nλ-	ʒá	‘to pick’
	nλ-	sútè	‘to jump’
	nλ-	látè	‘to fly’
II	nè-	lý	‘to come’
	nè-	lé	‘to put inside’
	nè-	læjyè	‘to bend’
	nè-	xítè	‘to toss’

Table 65. Verbs which take the riverine orientational prefixes

There are two vowel qualities for this prefix [ʌ] and [e]. Thus, we see that this prefix does not harmonize as extensively as do the ‘upwards’ and ‘downwards’ prefixes.

#### 5.2.2.2 The downstream prefix *sì-* ~ *sí-*

The downstream prefix is a voiceless alveolar fricative with a fixed vocalism. Table 66 gives examples of the ‘downstream’ orientational prefix.

<i>Prefix Form</i>	<i>Verb Form</i>	<i>Gloss</i>
sì-	sútè	‘to jump’
sì-	látè	‘to fly’
sí-	kλ <sup>1</sup>	‘to go’
sì-	lý	‘to come’
sí-	t <sup>h</sup> e	‘to drink’
sì-	t <sup>h</sup> jæ	‘to bring:1’
sì-	xítè	‘to toss’

Table 66. Downstream orientational prefix

Figure 67 gives an illustration of the downstream orientational prefix.

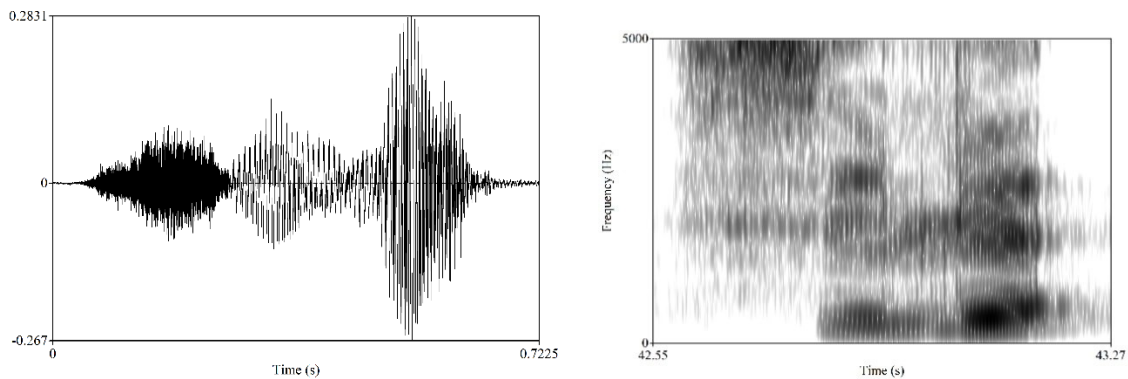


Figure 67. Waveform and spectrogram of *sì-lý* ‘come downstream’

The downstream marker exhibits relatively low variability in terms of prefix vocalism (see discussion in 5.6).

### 5.2.3 The cis/trans-locative axis

This cis/trans-locative axis is the most semantically general and is used for movement where there is no clear vertical ascent or descent, and where the motion does not lead inwards or



outwards or upstream or downstream. There are two prefixes, *dzV-* and *dV-*, which indicate motion toward and away from the deictic center respectively. The vocalism for the ‘towards’ prefix is an apical vowel and not affected by vowel harmony, whereas the vocalism for the ‘away’ prefix is variable.

Evans (2004) has pointed out that the cis/trans-locative prefixes can have the meaning of clockwise and counterclockwise. In Yonghe we find this extended meaning which is evident in verbs such as *dzi-tɛ́y* ‘to turn counterclockwise’ vs. *dè-tɛ́y* ‘to turn clockwise’.

### 5.2.3.1 The cis-locative prefix *dzi-*

The towards prefix is a voiced alveolar affricate with a fixed vocalism. Table 67 gives examples of the cis-locative orientational prefix.

<i>Prefix form</i>	<i>Verb Form</i>	<i>Gloss</i>
dzi-	mútè	‘to seek’
dzi-	tá	‘to take’
dzi-	ká¹	‘to go’
dzi-	wà’sé	‘to seek help’
dzi-	lý	‘to come’
dzi-	sé	‘to put’
dzi-	tʰĩ	‘to bring’
dzi-	tʰá	‘to embrace’

Table 67. The cis-locative orientational prefix

Figure 68 gives an illustration of the downstream orientational prefix.

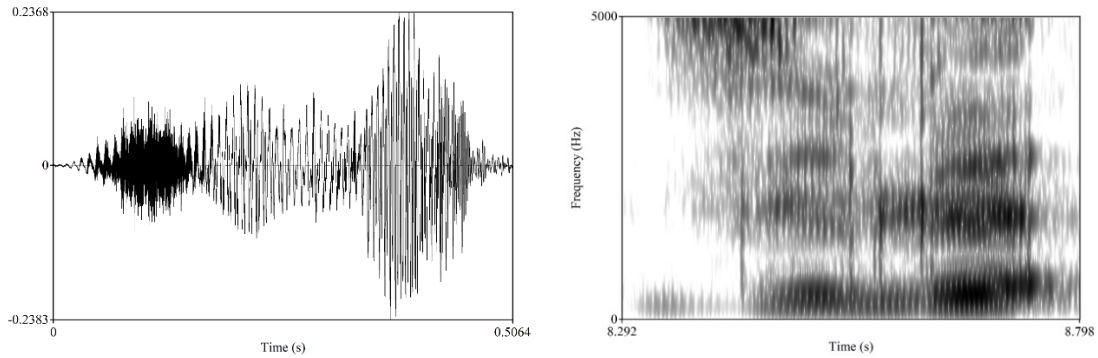


Figure 68. Waveform and spectrogram of *dzi-lý* ‘come towards’

An example of this prefix is given in (10). In (10), the cis-locative marker is predictably used to refer to motion towards the speaker. In this example the speaker is in China and the addressee is in America.

- (10) ?ú n'ákl' dzi-lý-wà  
 2s when ORT:towards-come-PROS  
 ‘When will you come (to China)?’

However, in (11-12), the cis-locative prefix indicates motion towards the hearer, indicating that a shift is possible in conversational discourse. We also find that motion can be construed relative to third person referents in narrative discourse.

- (11) télin hædy-kjè ?ú-j=hà dzi-lý-næ  
 PN ten-CLF 2S-PAT=LOC ORT:towards-come-LNK  
 xókò tsù-wá-j wà  
 hotpot make-PROS-MED DISC  
 ‘Nate, is it so that ten people will come over and make hotpot?’

- (12) ?ú tsàwp<sup>h</sup>jæ dzi-ş'áw-t<sup>h</sup>à-mì  
 2SG pictures < Ch. ORT:towards-receive-BOR-Q  
 ‘Did you receive (the) pictures?’

The cis-locative can be used with the verb stem *ly'* 'come' to indicate the arrival of a particular time. Thus, we see a metaphorical extension of the spatial to the temporal realm, a common cross-linguistic pattern (Haspelmath 1997; Lakoff & Johnson 1980). In these cases, time is conceptualized as moving towards the deictic center, as in (13). This is not unlike the conceptualization of time seen in English phrases such as 'spring is coming' or 'the holidays are upon us'.

- (13) dzæmə́ ʃíxù            dzi-lǎ-j                    dzæmə́ kyè-k-ú-j  
 lunch time < Ch. ORT:towards-come-MED lunch gather-AM:go-APPL-  
 MED  
 'Lunch time arrived. (His mother) collected (the) lunch (for him).'

Note that the cis-locative prefix is not used with the verb *ki* 'to go', as this inherently means 'motion away from deictic center', the opposite of cis-locative. However, the Associated Motion suffix -*ki* ~ -*ki* can occur on verbs which have the 'towards' prefix as shown in (14).

- (14) tʃʰíʃì            pʰí=jì            dzi-wá'sè-ki-nè  
 sapling white=PAT ORT:towards-look.for.help-AM:go-LNK  
 '(Father Bumo) went to seek the help of a white sapling and ...'

### 5.2.3.2 *Trans-locative prefix dV-*

The trans-locative or 'away' prefix is a voiced alveolar stop with a variable vocalism. Table 68 gives examples of the allomorphs.

Type	Prefix Form	Verb Form	Gloss
I	d $\lambda$ w- ~ d $\grave{o}$ -	kú	‘to fear’
	d $\lambda$ w- ~ d $\grave{o}$ -	p <sup>h</sup> ú	‘to flee’
II	dà-	ts <sup>h</sup> á	‘to be in the wrong’
III	dæ-	ts <sup>h</sup> é	‘to stack’
IV	d $\grave{\lambda}$ -	k $\acute{\lambda}$ ’	‘to go across (stem II)’
V	dè-	kí	‘to go across (stem I)’
	dè-	kjé	‘to open’
	dè-	zyé	‘to finish’

Table 68. The trans-locative orientational prefix.

There is variation between [o] and [ $\lambda$ w] when the prefix occurs before stems with [u]. The vowel harmony pattern for this prefix is somewhat idiosyncratic compared to the other prefixes. This will be discussed in section 5.6 below.

Figure 69 gives an illustration of the trans-locative orientational prefix.

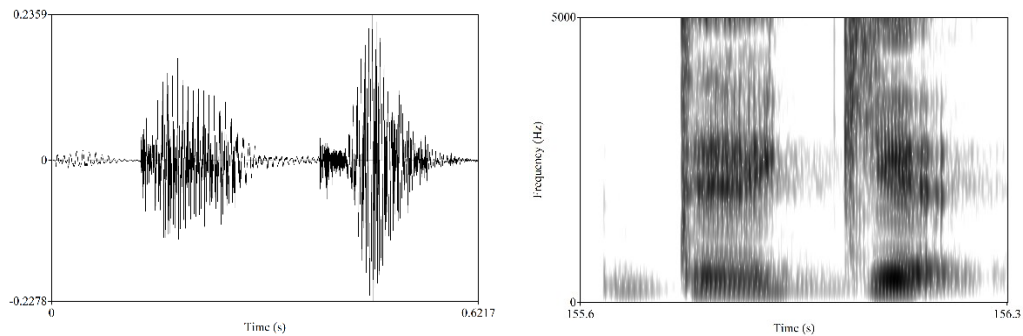


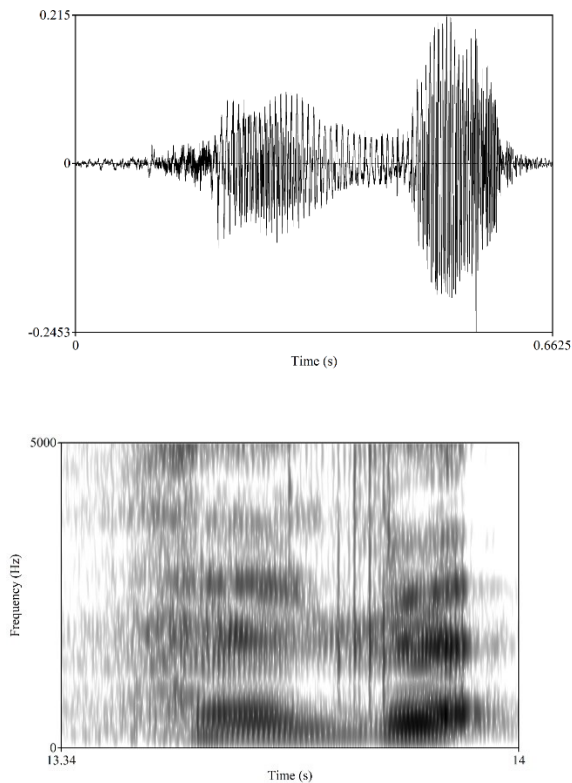
Figure 69. Waveform and spectrogram of *dè-kí* ‘go away’

## 5.2.4 Containment-based axis

The containment-based axis is made up of the ‘in’ and ‘out’ prefixes. The semantics of these two prefixes is straightforward. Though there is some metaphorical extension of the ‘outwards’ prefix (see below).

### 5.2.4.1 *The outwards prefix hV-*

The outwards prefix is a syllable with an [h] onset and a variable vocalism. Figure 70 gives an illustration of this prefix.



*Figure 70.* Waveform and spectrogram of *hè-ly* ‘come out’

Table 69 gives examples of the types of harmony exhibited by this morpheme.

Type	Prefix Form	Verb Form	Gloss
I	há-	k <sup>h</sup> álè	‘to take out’
	há-	wù	‘to turn around’
II	hà-	kwá	‘to close (a door)’
III	hè-	tsàemé	‘to look out’
IV	hè-	lý	‘to come out’
	hè-	kí	‘to go out’
V	hà <sup>1</sup> -	kà <sup>1</sup>	‘went out’

*Table 69. The outwards prefix hV-*

Many verbs that involve motion away from the body – such as reaching the arms above the head, pointing, kicking, and waving – take the outwards prefix. This suggests that the body is conceptualized as a container, and motion away is construed as outwards movement rather than movement away. For example, *hà-tɕ<sup>h</sup>á* ‘to reach out’.

#### *5.2.4.2 The inwards prefix ?V-*

The containment-based axis refers to motion into or out of a container. The most typical use of these verbs is to refer to motion into or out a house. Table 70 gives examples of verbs which take the inwards prefix in the perfective.

Type	Prefix Form	Verb Form	Gloss
I	ʔǎ-	nǎ	‘to know’
	ʔǎ-	tsú	‘to do’
II	ʔà-	sá	‘to hear’
III	ʔǎ-	tsǎmǎ	‘to look’
IV	ʔò-	lótì	‘to understand’
V	ʔè-	ʂé	‘to die’
	ʔè-	lý	‘to come’
	ʔè-	kí	‘to go:IMPF’
VI	ʔǎ <sup>1</sup> -	kǎ <sup>1</sup>	‘to go:PFV’

Table 70. The inwards prefix ʔV-

As in other varieties of Qiang, the Yonghe variety uses the inwards prefix as the default imperative form. In daily life, inviting someone to come in to visit, ʔè-jé ‘ORT:in-live/sit, is the most common imperative phrase, and this may have facilitated the development of the inwards prefix into a general marker of imperatives. Though at the moment, this claim is speculative and would need to be confirmed using more data.

The verbs which take the inwards directional prefix in the perfective tend to be verbs of cognition and perception (see LaPolla & Huang 2003). When verbs which take the inwards directional prefix are used in the imperative, the inwards prefix is often accompanied by a 2S imperative suffix *-nù*. For example, ʔà-sá-nù ORT:in-listen-IMP:2 ‘You listen!’. A useful way to think about this is as similar to the difference between English ‘listen in’ and ‘listen up’. The only difference being that for Yonghe Qiang the ‘in’ meaning has the imperative semantics.

### 5.2.5 Prefix-stem relationships: pairings of orientational prefixes

This section discusses the co-occurrences of the prefixes with different stems. The majority of verbs take a subset of the directional prefixes as opposed to all eight. The distribution of the verbs which take less than all of the prefixes is complex. See Huang C. (2006) for a quantitative study of pairings of prefixes and verbs in the Ronghong variety.

There are at least two verbs, *hú* ‘to have / exist’ and *hwát<sup>h</sup>à* ‘to want, desire’ which do not take any orientational prefixes. There are a small number of verbs which can take only one orientational prefix. One such verb is *ɣá* ‘to pick up’. This verb occurs only with the upwards directional prefix. An example is given in (15).

- (15) wátsù            tɿ-ɣá                    tɕ<sup>h</sup>í-tɕì-m-bǒ  
stick            ORT:up-pick.up        need-PART-2P-POL  
‘you’ll need to pick up a stick’

Verbs which take two directional prefixes are generally those which have one conventionalized pairing with a prefix in the perfective aspect, along with the use of ‘inwards’ in the imperative mood. An example is the word *jétè* ‘to write, draw’. This verb takes the ‘downwards’ prefix in the perfective aspect, *hè-jétè* ‘wrote’, and takes the ‘inwards prefix’ in the imperative mood *ʔè-jétè* ‘write!’. Other verbs which take two directional prefixes have a different collocation for the perfective. Table 71 gives examples of these types.



<i>Verb</i>		<i>Form</i>	<i>Gloss</i>
'write'	--	jétè	'to write'
	down	hè-jétè	'wrote'
	in	ʔè-jétè	'write!'
'study'	--	ɛ́y	'to study'
	down	hè-ɛ́y	'studied'
	in	ʔè-ɛ́y	'study!'
'drink'	--	t <sup>h</sup> é	'to drink'
	downriver	sí-t <sup>h</sup> è	'drank'
	in	ʔé-t <sup>h</sup> è	'drink!'

Table 71. Verbs which take two directional prefixes

Certain Active Verbs, such as the verb *látè* 'to fly', can take any of the eight prefixes, as illustrated in Table 72.

<i>Form</i>	<i>Gloss</i>	<i>Axis</i>
tà-látè	'to fly upwards'	vertical
fià-látè	'to fly downwards'	
nà-látè	'to fly upriver'	riverine
si-látè	'to fly downriver'	
ʔà-látè	'to fly inwards'	containment
hà-látè	'to fly outwards'	
dzi-látè	'to fly towards'	cis/trans-locative
dà-látè	'to fly away'	

Table 72. The verb *late* 'to fly' with the orientational prefixes

A list of verbs which can take all eight directional prefixes are given in Table 73.

<i>Form</i>	<i>Gloss</i>
látè	'to fly'
te <sup>h</sup> ýtè	'to kick'
xítè	'to throw'
wú <sup>l</sup> tè	'to mix, stir'
màté	'to wipe, plaster'
ká <sup>l</sup>	'to go'

Table 73. Verbs which take all eight prefixes

Even for the verbs which can take all eight prefixes, there are sometimes special relationships between certain prefixes and the verbs stem. Consider the verb 'to throw', given in Table 74.

<i>Form</i>	<i>Gloss</i>	<i>Axis</i>
tè-xítè	'to throw upwards'	vertical
fiè-xítè	'to throw downwards'	
nè-xítè	'to throw upriver'	riverine
sì-xítè	'to throw downriver'	
ʔè-xítè	'to throw inwards'	containment
hè-xítè	'to throw outwards'	
dzì-xítè	'to throw towards'	cis/trans-locative
dè-xítè	'to throw away'	

Table 74. The verb *xítè* 'to throw'

Although all prefixes can occur with this verb, there is an understanding amongst native speakers that 'downstream' is the default prefix for the perfective form of this verb. That is,

there is a sense in which the ‘downstream’ directional prefix has less semantic import than other prefixes for this verb and is that ‘downstream-throw’ is closer to the meaning of ‘to throw’ than it is ‘to throw in a downstream direction’.

### 5.2.6 Reduplicated verbal compounds with opposing orientational prefixes

For some Active Verbs, there is a construction in which the stem is reduplicated and the base and reduplicant are paired with an opposing orientational prefix. An example of such a construction with the verb *látè* ‘to fly’ is given in (16). Note that the form *látè* ‘to fly’ has the high-initial tonal melody in citation form.

- (16) tλ-látè=fà-làtè  
ORT:up-fly=ORT:down-fly  
‘to fly up and down’

This construction resembles the reduplicating constructions observed in Chapter 4 in that the initial part of the construction has the same tonal pattern as the citation form whereas the second part of the construction has a neutralized tonal pattern.

There is an additional degree of neutralization with this construction. For example, consider (17) which has this construction based on the verb *màté* ‘to wipe’.

- (17) tλ-mátè=fà-màtè  
ORT:up-wipe=ORT:down-wipe  
‘to wipe up and down’

The tonal melody for (16) is identical to that of (17) despite the fact that the verbs have different tonal melodies in citation form. Thus, the melody for this construction, when applied to disyllabic verbs is L-H-L-L-L-L. Instead of position rules for tonal neutralization, we can simply note that this is a fixed construction and that melody of L-H-L-L-L is part of what serves to demarcate this construction. This pattern obtains even when other prefixes are used. For example, the verb ‘to fly’ can be paired with the containment-based prefixes as in (18), with the same tonal melody.

- (18) ʔà-látè=hà-làtè  
 ORT:in-fly=ORT:out-fly  
 ‘to fly in and out’

The verb *màté* ‘to wipe’ can also be paired with the riverine axis prefixes (5.1.2). This example might be used to describe the way in which someone rubs the hair on the back of a horse.

- (19) sì-mátè=nà-màtè  
 ORT:up-wipe=ORT:down-wipe  
 ‘to wipe with and against the grain’

Note again that (18) and (19) have the same tonal melodies: L-H-L-L-L-L.

For monosyllabic verb stems, the tonal pattern for the construction is L-H-L-L-L-L and this pattern is used regardless of the lexical tone of the Verb. Examples from connected speech are given in (20-21).

- (20) tɿ-kɿ¹=fɿɿ¹-kɿ¹  
 ORT:up-go.PFV=ORT:down-go.PFV  
 ‘to go up and down’
- (21) dzi-mié=dè-mié  
 ORT:towards-feed=ORT:away-feed  
 ‘(the mother bird) fed (her chicks) to and fro’

Pitch traces for (21), which is from a narrative by Mr. Yang Zhiquan are given in Figure 71.

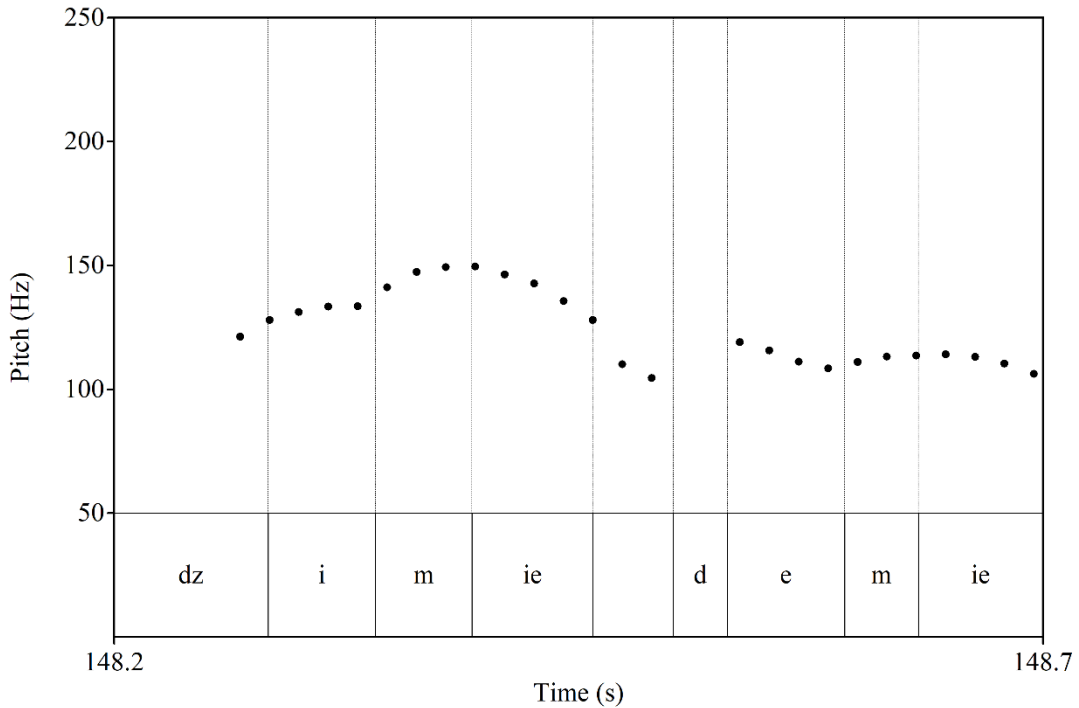


Figure 71. A pitch traces of the reduplicated construction *dzi-mié=dè-mié* ‘to feed to and fro’

Whether or not reduplicated constructions can be applied to a given stem depends on the stem and the orientational prefixes with which it may be paired. That is, these are constructions which must be learned as such. Table 75 gives a list of the combinatorial possibilities for different Verb-stems examples of these types of constructions.

<i>Verb Gloss</i>	<i>Form</i>	<i>Construction Gloss</i>	<i>Axis</i>
‘to fly’	<i>tɿ-látè=hà-làtè</i>	‘to fly up and down’	vertical
	<i>ʔà-látè=hà-làtè</i>	‘to fly in and out’	containment
	<i>dzi-látè=dà-làtè</i>	‘to fly back and forth’	cis/trans-locative
‘to wipe’	<i>tɿ-mátè=hà-mátè</i>	‘to wipe up and down’	vertical
	<i>sì-mátè=nà-mátè</i>	‘to wipe with and against the grain’	riverine
‘to come’	<i>tɿ-lý=hè-lý</i>	‘to come up and down’	vertical
	<i>ʔè-lý=hè-lý</i>	‘to come in and out’	containment
	<i>sì-lý=nè-lý</i>	‘to come upstream and downstream’	riverine
‘to go’	<i>tɿ-káʔ=hà-káʔ</i>	‘to go up and down’	vertical
	<i>ʔà-káʔ=hà-káʔ</i>	‘to go in and out’	containment
	<i>sì-káʔ=nà-káʔ</i>	‘to go upstream and downstream’	riverine
	<i>dzi-káʔ=dà-káʔ</i>	‘to go to and fro’	cis/trans-locative

*Table 75. Verbs that can take the reduplicative construction*

This construction is interesting in several respects. First, we see the tonal neutralization typical of Yonghe Qiang reduplicative constructions. Second, we gain an insight into the ordering of the prefixes within a given orientational axis by native speakers. The ordering we find is more or less intuitive for native speakers of languages such as English and Chinese. Table 76 gives a comparison of these categories across languages.

<i>English</i>	<i>Chinese</i>	<i>Pinyin</i>	<i>Yonghe</i>	<i>Axis</i>
‘to X up and down’	上下	<i>shàngxià</i>	tV-X=fa-X	‘vertical’
‘to X in and out’	进出	<i>jìnchū</i>	?V-X=ha-X	‘containment’
‘to X to and fro’	来去	<i>láiqù</i>	dzV-X=dV- X	‘cis/locative’
‘to X with and against’	顺逆	<i>shùnnì</i>	sV-X=nV-X	‘riverine’

*Table 76.* Relative ordering of directions within each axis

This reduplicative construction is different from simple repetition of an inflected verb with orientational prefix because the tonal alterations present in the reduplicative constructions are not found in simple repetitions.

### 5.2.7 Orientational prefixes with Chinese loans

Qiang prefixes can be added to Chinese loans to convey orientational as well as aspectual and modal meanings. Table 77 gives examples of Chinese borrowings with Qiang prefixes. There are hitherto no examples of Chinese loans with the ‘away’ prefix. Most of the collocations are rooted in the semantics of the Chinese verb, although the ‘up’ and ‘down’ prefixes predominate with borrowings from Chinese, suggesting that these two prefixes are more common and more likely to be the default prefix for borrowings without strong spatial semantics.

<i>Axis</i>	<i>Prefix</i>	<i>Stem</i>	<i>Chinese</i>	<i>Pinyin</i>	<i>Gloss</i>
vertical	fià-	mán-t <sup>h</sup> à	忙	máng	‘to be busy’
	fiò-	hwán-t <sup>h</sup> à	哄	hǒng	‘to deceive’
	fià-	éa-t <sup>h</sup> à	下	xià	‘to take down’
	tà-	zán-t <sup>h</sup> à	认	rèn	‘to recognize as’
	tà-	k <sup>h</sup> áw-t <sup>h</sup> à	考	kǎo	‘to take a test’
	tà-	pjæn-t <sup>h</sup> à	变	biàn	‘to change’
	tà-	wá-t <sup>h</sup> à	挖	wā	‘to dig’
	tà-	şán-t <sup>h</sup> à	上	shàng	‘to work’
	tà-	p <sup>h</sup> án-t <sup>h</sup> à	碰	pèng	‘to bump’
riverine	sì-	tşáw-t <sup>h</sup> à	照	zhào	‘to take a photo’
	nà-	tón-t <sup>h</sup> à	冻	dòng	‘to freeze’
	nà-	tşwán-t <sup>h</sup> à	撞	zhuàng	‘to run into’
	nè-	wán-t <sup>h</sup> a	弯	wān	‘to bend’
cis/trans-locative	dzi-	şáw-t <sup>h</sup> à	收	shōu	‘to collect’
containment	hà-	fá-t <sup>h</sup> à	发	fā	‘to send out’
	hà-	fán-t <sup>h</sup> à	翻	fān	‘to translate’
	?à-	t <sup>h</sup> wáj <sup>h</sup> t <sup>h</sup> à	推	tūi	‘to push’
	?à-	tá-t <sup>h</sup> à	打	dǎ	‘to catch a ride’

Table 77. Chinese monosyllabic loans with Qiang orientational prefixes



Disyllabic Chinese loans are treated as arguments of Yonghe Verbs and occur with the Qiang light verb *tsú* ‘do’. The light Verb almost always takes the ‘downwards’ orientational prefix.

Examples are given in Table 78.

<i>Chinese</i>	<i>Pinyin</i>	<i>Qiang</i>	<i>Gloss</i>
放假	<i>fāngjià</i>	fàn.teá fiò-tsú	‘to be on holiday’
上班	<i>shàngbān</i>	ʂànpán fiò-tsú	‘to start work’
谢师	<i>xièshī</i>	ɛési fiò-tsú	‘to graduate’
下班	<i>xiàbān</i>	ɛàpán fiò-tsú	‘to finish work’
打工	<i>dǎgōng</i>	tàkóŋ fiò-tsú	‘to change’
分路	<i>fēnlù</i>	fánlù fiò-tsú	‘to dig’
开会	<i>kāihuì</i>	k <sup>h</sup> ájxwèj fiò-tsú	‘to work’

Table 78. Disyllabic Chinese loans with Qiang light verbs

For at least some disyllabic Chinese loans, the light verb is used with a different orientational prefix based on the semantics of the verb. For example, 入党 *rùdǎng* ‘to join the Communist Party’ (lit. enter-party) is borrowed as *zùtánj* fiò-tsú, with the inwards directional prefix to match the semantics of the Chinese borrowed form.

### 5.2.8 Historical origins of the orientational prefixes

Oriental prefixes are an areal feature of Western Sichuan (LaPolla 1994; Shirai 2009; Chirkova & Chen 2013). However, it is likely that at least some of the prefixes in some of the subgroups are cognate rather than independent developments (Thurgood 2017: 16-17).

Jacques (2014: 233–235) carries out a comparative study of the orientational prefixes of Tangut, Pumi, and Rgyalrongic.

It is too early to draw conclusions about the cognancy of Qiang orientational prefixes with languages in other subgroups. As an illustration of this point, consider the case of the ‘inwards’ orientational prefix in Qiang. Evans (2004) reconstructs the Verb-complex at the level of proto-Qiang. Evans notes that some southern varieties have vowel initial forms, whereas northern varieties have forms with initial velar stops and reconstructs two separate inwards prefixes: *\*u* ‘inwards’ for proto-Southern Qiang and *\*ku* ‘inwards’ for proto-northern Qiang. However, it is not necessary to reconstruct more than one ‘inwards’ prefix and the two prefixes are cognate. Consider the comparative evidence in Table 79.

<i>Wenchuan</i>	<i>Heishui</i>	<i>Li</i>	<i>Mao</i>		
<i>Longxi</i>	<i>Mawo</i>	<i>Taoping</i>	<i>Ronghong</i>	<i>Yonghe</i>	<i>Gloss</i>
ì lò	kuə liu	u <sup>55</sup> ly <sup>33</sup>	u-lu	ʔè-lý	‘to enter’
à tɛó	kuə tiu	--	u-tɛu	ʔè-tý	‘to see’
--	kuə tsi	kuə <sup>55</sup> tsi <sup>33</sup>	--	ʔè-tɛí	‘to catch’
--	kuə rmu	--	u zɿmu	ʔλ <sup>1</sup> -mú <sup>1</sup>	‘dream’

Table 79. Inward prefixes in different varieties

The cognancy of the forms has been obfuscated by what appears to be a sound change  $*k^w > ʔ > 0$ . The Taoping form for ‘to enter’ is likely the result of borrowing, as we would expect a velar onset for this form. The forms for ‘thou’ add support for this segmental correspondence.

- a. Longxi    ù
- b. Heishui    kuə
- c. Taoping    kuə<sup>55</sup>
- d. Ronghong    u

e. Yonghe ʔú

LaPolla & Huang (2003: 422) write about the form for ‘thou’ in Ronghong:

It is a puzzle why the second person pronoun has a glottal or zero initial (they don’t contrast) instead of /n/ or /ŋ/, as the rhyme /u/ would be a regular development from the usual Tibeto-Burman second person singular pronoun \*nang. (PTB \*n- has several reflexes in Qiang, but not usually [ʔ ~ Ø]).

A potential solution to this puzzle would be to posit that the glottal initial forms are cognate with the velar initial forms in other varieties and not the nasal initial forms found in other languages and in other varieties of Qiang. See Jacques (2007: 4) on pronouns in Qiang. More work would need to be done to show this sound correspondence is robust, but this example illustrates that the current state of knowledge does not even cover the Qiang-internal developments and that long-range comparisons with directional prefixes in other subgroups are probably not warranted.

As the purpose of this chapter is to discuss the synchronic characteristics of the prefixes in Yonghe Qiang, it will not address comparative or diachronic issues in depth. However, it is worth mentioning that one aspect of the prefixes which appears to be overlooked in prior discussions of the prefixes in the languages of Western Sichuan is the similarity with Chinese serial verb constructions (SVCs). Data illustrating the similarities are given in Table 80.

<i>Qiang Prefix</i>	<i>Gloss</i>	<i>SVC</i>	<i>Pinyin</i>	<i>Gloss</i>	<i>Axis</i>
tV-	‘upwards’	上去	<i>shàngqù</i>	ascend-go	vertical

hV-	‘downwards’	下去	<i>xiàqù</i>	descend-go	
nV	‘upriver’	--	--	--	riverine
sV-	‘downriver’	--	--	--	
?V-	‘inwards’	进去	<i>jìnqù</i>	enter-go	containment
hV-	‘outwards’	出去	<i>chūqù</i>	exit-go	
dzV-	‘towards’	--	--	--	cis/trans-locative
dV-	‘away’	过去	<i>guòqù</i>	cross-go	

Table 80. Similarity of Qiang prefixes and Chinese serial verb constructions

Although these are not, strictly speaking, prefixes in Chinese, their position and function of adding spatial orientation is the same and they have some overlap in terms of the orientational semantics. From the perspective of RCG, these collocations or ‘collostructions’ are both constructions at a basic level, even first elements of the Chinese constructions can occur independently is. Thus, the perspective of RCG allows us to see how similar these constructions are independent of the morphological profile of the rest of the languages.

Having examined in some detail the use of the orientational prefix, we now turn to the other verbal prefixes, which are less involved and more straightforward than the orientational prefixes.

### 5.3 Recent past prefix *ɛi-*

The prefix *ɛi-* occurs after the orientational prefix but before the verb stem. This morpheme lends the meaning of an action having just occurred. It is not found in other varieties of Qiang. Examples (22-23) illustrate the meaning of the *ɛi-* prefix.

- (22) sí-t<sup>h</sup>æ  
 ORT:downriver-drink/eat:1  
 ‘I’ve eaten’
- (23) sì-éí-t<sup>h</sup>æ  
 ORT:downriver-REC-drink/eat:1  
 ‘I’ve just eaten’

An example from connected speech is given in (24).

- (24) fiè-éí-èi  
 ORT:down-recent.past-release  
 ‘(This horse) just shit recently.’

This prefix is only very marginally attested in the corpus and not much can be said about it at this point. However, it does appear that this construction has a set tonal melody of L-H-L.

## 5.4 Mood marking prefixes

There are several mood-marking prefixes which are in complementary distribution with each other. The negative mood marking prefix *mV-* ‘not’, the prohibitive mood marking prefix *tá-* ‘don’t’, and two interrogative mood marking prefixes: *tá-* ‘where’ and *ní-* ‘what/why’. This section gives an illustration of each of these prefixes.

### 5.4.1 Negating mood

The prefix /mV-/ marks negative mood. The prefix exhibits both segmental and suprasegmental allomorphy. Table 81 gives examples of the different allomorphs of this verbal prefix.

<i>Type</i>	<i>Prefix Form</i>	<i>Verb Form</i>	<i>Gloss</i>
I	mà-	ǰá	‘to be not attractive’
	mà-	ná	‘to not know’
II	mè-	báé	‘to not carry on one’s back’
	mè-	jáé	‘to not good’
III	mà-	ká	‘to not be able’
	mà-	xwá	‘to not sell’
VI	mò-	tsú	‘to not do’
	mò-	lótì	‘to not understand’
V	mè-	lý	‘to not come’
	mè-	te <sup>h</sup> í	‘to not want’
VI	mà <sup>1</sup> -	ká <sup>1</sup>	‘to not go:PFV’
	mà <sup>1</sup> -	bá <sup>1</sup>	‘to not be big’
	mà <sup>1</sup> -	tǰí	‘to not build’

Table 81. The multiple allomorphs of the negating prefixes

There is another allomorph of this prefix, [mi], which only occurs in certain doublets in ritual texts. An example of this is given in (25).

- (25) nàjé                      mì-pá                      sì-téí                      mì-pá  
demon.temple              NEG-be.correct              god-house              NEG-be.correct  
‘(Bejaelypu) built both the demon house and the temple incorrectly’.

Another negator, *nì-*, is used only for copular verbs. Thus, *nì-wú-j* NEG-COP-EVID ‘(that’s) not it’.

#### 5.4.2 Prohibitive mood

The prefixes *tá-* and *tási-* mark prohibitive mood. Unlike other varieties, this form has not undergone palatalization (cf. Mawo *tei* PROH). In other varieties of Qiang, such as Ronghong, the negative imperative prefix is subject to vowel harmony and has a variable vocalism. In the Yonghe variety this prefix does not undergo significant harmony.

It appears that the prefix *tá-* occurs with disyllabic verbs whereas the disyllabic variant *tási-* occurs on monosyllabic stems. This is illustrated in (26).

- (26) *tási-kù*, *tá-zlàtè* *jì-wù-j*  
PROH-fear PROH-cry say-APPL-EVID  
‘Don’t be afraid, don’t cry (he said to her).’

Note that the prohibitive has a high tone on the first syllable and the tone of the following syllables are neutralized. Again, tone has a constructional nature and is determined by the construction into which the components are arranged. The form ‘to fear’ has a rising tone in isolation, yet has a low tone in this example.

Figure 72 shows the pitch trace for the form *zlàtè-j* cry-EVID ‘she cried’. Figure 73 gives the pitch trace for the phrase *tá-zlàtè* PROH-cry from example (26).

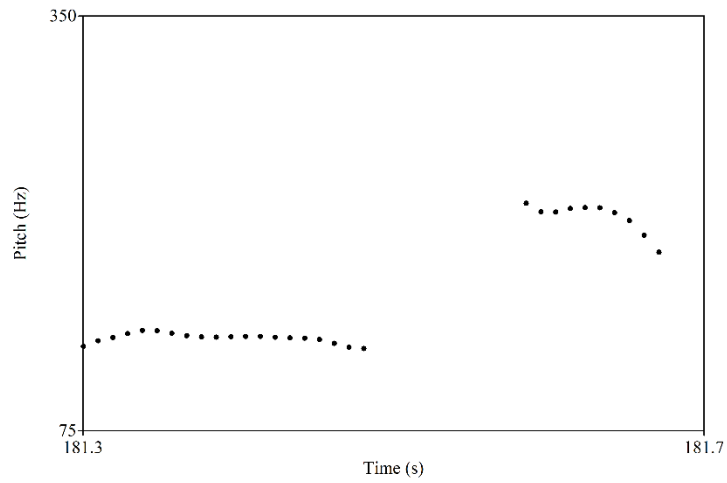


Figure 72. Pitch trace of *zàtè-j* cry-EVID ‘she cried’.

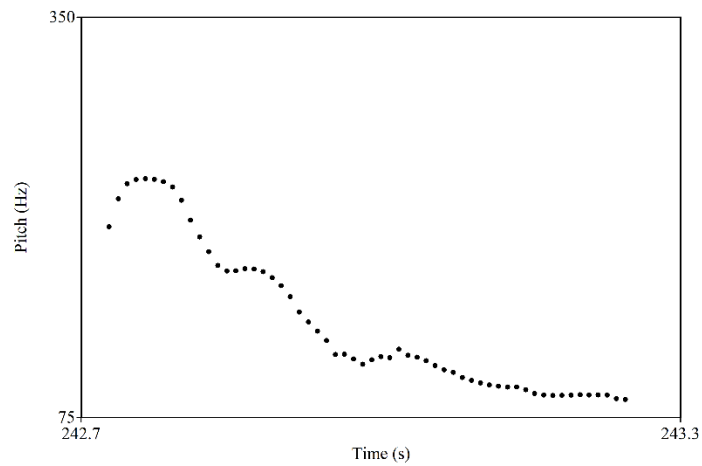


Figure 73. Pitch trace of *tál-zàtè* ‘don’t cry’

Chinese loans, which are marked with a loanword marking [-t<sup>h</sup>à ~ -t<sup>h</sup>á] suffix can also take the [tál-] prohibitive prefix. An example is given in (27).

- (27) *tál-màn-t<sup>h</sup>à*  
 PROH-be.busy-BOR  
 ‘don’t be busy! (don’t hurry)’



This form in isolation is *màn-thá* ‘to be busy’. This shows that the tonal neutralization applies to Chinese loans as well.

### 5.4.3 Interrogative mood

There are two interrogative prefixes: *ta-* ‘where’ and *ni-* ‘what’. Examples are given in (28-29).

- (28) ʔú píesì tá-kwà  
2S today where-AM:go.PROS  
‘where are you going today?’
- (29) twànǎé ní-tsù-kwà  
today what-do-AM:go.PROS  
‘What are you gonna go do tomorrow?’

Note that these mood marking prefixes have an invariant high tone and do not participate in vowel harmony.

## 5.5 Continuative aspect prefix

The continuative aspect marking prefix indicates that a state or an action is ongoing. This prefix covers semantic range of English ‘still’ and ‘yet’. It is also quite similar to the Chinese morpheme 还 *hái* ‘still’. Similar to the other Qiang prefixes, the continuative aspect prefix exhibits some phonological and semantic variation. This section will discuss phonological alternations first (5.5.1) and then discuss semantic nuances (5.5.2). Finally, I will discuss the use of the prefix with Chinese loans (5.5.3).

### 5.5.1 Phonological alternations

The continuative aspect marking prefix exhibits two different types of allomorphy. Firstly, there is an alternation between [tæ̀] and [tà]. The former occurs before front vowels whereas the latter occurs before back vowels. Examples illustrating this alternation are given in Table 82.

<i>Prefix Form</i>	<i>Verb Form</i>	<i>Gloss</i>	<i>Free Translation</i>
tæ̀-	tæ̀-jæ	CONT-good	‘still good’
	tæ̀-zí	CONT-delicious	‘still delicious’
	tæ̀-jé	CONT-live	‘still live’
	tæ̀-te <sup>h</sup> y	CONT-pick	‘still pick’
tà-	tà-ná	CONT-know	‘still know’
	tà-lóti	CONT-understand	‘still understand’
	tà-wú	CONT-COP	‘still be’
	tà-látè	CONT-fly	‘still fly’

Table 82. Continuative aspect marking prefix

### 5.5.2 Tonal alternations

The second type of alternation is a tonal one. Before monosyllabic Type I Verbs, the prefix has a low tone and the stem has a high tone. Before monosyllabic Type II Verbs (as well as irregular Verbs Type IV, such as ‘drink’), the prefix has a high tone. Example (31) illustrates both the vocalic and tonal alternation. Note that ‘to eat’ is a Type I Verb and ‘to drink’ is an irregular Type IV Verb.

- (31) ká hǐ tǎ-t<sup>h</sup>ǎ mòmó tà-dzá  
 1S wine CONT-drink:1 steamed buns CONT-eat:1  
 ‘I’m still drinking wine, still eating steamed buns’

Before disyllabic verbs, the prefix has an invariant low tone and there is a neutralization of the distinction between high-final and high-initial disyllabic verbs. Table 83 gives examples illustrating this point.

<i>Type</i>	<i>Citation Form</i>	<i>Prefixed Form</i>	<i>Gloss</i>
2.1	mútè	tà-mútè	CONT-search
	látè	tà-látè	CONT-fly
	zétè	tǎ-zétè	CONT-strike
2.2	máté	tà-máté	CONT-wipe
	lǎté	tà-lǎté	CONT-pour
	zǎté	tà-zǎté	CONT-weep

Table 83. Verbs showing tonal neutralization due to the CONT- prefix

We might look at this as neutralization, or as using tone to demarcate the continuative+Verb construction. Again, we see that the constructional nature of tone is pervasive.

### 5.5.3 Semantic nuances

The semantics of the continuative prefix are nuanced. It can denote continuation, as seen in example (31), which was said by Mr. Yang Zhiqun during the middle of having dinner.

Aside from a straightforwardly aspectual meaning, the prefix can also lend an emphatic

meaning. Example (32) illustrates the emphatic use in the story of a man who takes a horse from his son-in-law. Later on, his wife chastises him for taking the horse.

- (32) a. méj  
EXCL  
'my god!'
- b. mátà kátà mà-tswá-j,  
they thus NEG-have-EVID  
'those people are so poor'
- c. jý ʔà-tá dzí-pù-kì-næ  
horse one-CLF ORT:towards-buy-AM:go-LNK  
'(they) go and buy a horse,'
- d. ʔú tɛ<sup>h</sup>jáé tæ-jí-kù-nì  
2S want:1 CONT-say-AM:go:APPL-2  
'and yet you go and tell'em "I want (it)"  
OR 'and you **still** went and told them you want (it).

Note that the event denoted by the predicate that takes the continuative aspect prefix has already transpired, and the use of the prefix reflects the critical attitude of the wife speaking to her husband.

When used with Stative Verbs, the prefix can lend either an aspectual or superlative meaning. Thus, *tà-sá-j* CONT-pretty-EVID can mean 'still pretty' or 'prettier still'. The prefix can also be used with at least some Stative Verbs after the classifier construction 'one bit', in a way that is slightly emphatic and expresses a surpassing of expectations. An example of this type of usage is given in (33).

- (33) ʔá-w tæ-zí-j  
one-bit CONT-delicious-EVID

‘pretty tasty!’ cf. Chinese 还有点好吃 *háiyǒudiǎn hàochī* lit. ‘still a little good to eat’

#### 5.5.4 Use with Chinese forms

When this prefix is used with Chinese loans, the vocalic assimilation is still present.

Examples illustrating this point are given in Table 84.

<i>Prefix</i>	<i>Prefixed Form</i>	<i>Gloss</i>	<i>Chinese</i>	<i>Pinyin</i>
tà-	tà-mán-t <sup>h</sup> à	‘still busy’	忙	<i>máng</i>
	tà-ǰáw-t <sup>h</sup> à	‘still skinny’	瘦	<i>shòu</i>
	tà-lǰǎŋ.k <sup>h</sup> wǎj	‘still cool’	凉快	<i>liángkuai</i>
	tà-p <sup>h</sup> án-t <sup>h</sup> à	‘still fat’	胖	<i>pàng</i>
tǎ-	tǎ-kǎen.jì	‘still comfortable’	安逸	<i>ānyì</i>
	tǎ-éin-t <sup>h</sup> à	‘still practice’	兴	<i>xìng</i>
	tǎ-jyǎen-t <sup>h</sup> à	‘still far’	原	<i>yuán</i>

Table 84. Use of the Yonghe Qiang CONT- prefix with Chinese loans

The patterning for the first two syllables of these constructions is invariably low-high. Note that in citation forms, the Chinese loans *éin-t<sup>h</sup>à* ‘to practice’ and *p<sup>h</sup>án-t<sup>h</sup>à* ‘to be fat’ have different lexical tonal patterns but that these differences are neutralized when prefixed with the continuative aspect prefix. This speaks to the degree of integration of Chinese loans in Qiang. They trigger the same segmental alternations in the continuative aspect prefix, and are subject to the same kinds of tonal neutralizations when prefixed as Qiang verbs.

## **5.6 Vowel harmony for the prefixes**

Vowel harmony is a type of non-local assimilation (see Gordon 2016: 134-136). Vowel harmony processes are common in many varieties of Qiang (LaPolla & Huang 2003; Evans & Huang 2007; Sims 2011; Evans & Sun 2013), and also in other languages of the region (Evans & Huang 2007). See Chirkova (2020) for an introduction to vowel harmony systems in the family. Chirkova 2020, notes that “Qiang represents one of the most complex VH systems among Qiangic languages.” and that the vowel harmony systems tend to “simplify throughout the area of distribution of Qiangic languages, in the direction from north to south.”

### **5.6.1 Types of vowel harmony**

Types of vowel harmony in Qiang include horizontal and vertical harmony processes, rounding harmony, rhotic harmony (LaPolla & Huang 2003), and for varieties with secondary uvular vowel distinctions, uvular harmony (Evans & Sun 2013). In Yonghe, we find evidence for horizontal and vertical harmonization, as well as some evidence of rhotic harmony, sparse evidence of rounding harmony, and no evidence of uvular harmony. Each type of harmony will be discussed below.

### **5.6.2 Domain of vowel harmony:**

In Yonghe Qiang, we find vowel harmonic processes have occurred most frequently across affix-stem boundaries, but area also found in other compounds as well. This section will

discuss the compound harmony briefly before discussing the more relevant case of harmony across affix-stem boundaries.

#### 5.6.2.1 *Vowel harmony in compounds*

In Yonghe Qiang, most of the vowel harmony occurs across affix-stem boundaries. However, we find some evidence of harmony in noun-noun compounds. In subgroups such as Tibetan, vowel harmony has occurred primarily within compounds (Chirkova 2020). Consider the examples given in (34-35), which illustrate rhotic harmony within compounds. These show that, in principle, the rhotic harmony can be bi-directional. In the case of (34) we see that ‘pig’, which normally has a plain vowel, has a rhotic vowel due to the influence the form *hǎéʰ* ‘grass’. In (35) we see that the form for ‘village’, which normally has a plain vowel, has a rhotic vowel due to the influence of the form *kʰǎʰ* ‘Ka’er’.

(34) *pǎéʰ-hǎéʰ*  
pig-grass  
‘type of wild grass used for pigfeed’

(35) *kʰǎʰ-pùʰ*  
Ka’er-village  
‘Ka’er Village’

These examples are highly lexicalized and rhotic harmony in compounds is infrequent. As vowel harmony in noun-noun compounds is less frequent and more sporadic, this interesting topic will not be dealt with at length here.

#### 5.6.2.2 *Vowel harmony across stem-affix boundaries*

This section presents an overview of the vowel harmony patterns we find across stem-affix boundaries. The types of harmony observed are sometimes construction-specific and sometimes speaker-specific. The following is an account of the speech of Mr. Yang Zhiqian specifically.

Table 85 gives a side-by-side comparison of the various harmony patterns for the different prefixes when they occur with stems with different vowels.

<i>Stem</i>	<i>tV-</i>	<i>hV-</i>	<i>nV-</i>	<i>sV-</i>	<i>dzV-</i>	<i>dV-</i>	<i>hV-</i>	<i>ʔV-</i>	<i>mV-</i>	<i>tæ/a-</i>	<i>tʌ-</i>	<i>ta-</i>	<i>ni-</i>
i	e	e	e	i	i	e	e	e	e	æ	ʌ	a	i
y	e	e	e	i	i	e	e	e	e	æ	ʌ	a	i
e	e	e	e	i	i	e	e	e	e	æ	ʌ	a	i
æ	e	æ	e	i	i	æ	æ	æ	æ	æ	ʌ	a	i
u	ʌ	ʌ	ʌ	i	i	o	ʌ	ʌ	o	a	ʌ	a	i
o	ʌ	o	ʌ	i	i	--	o	o	o	a	ʌ	a	i
ʌ	ʌ	ʌ	ʌ	i	i	ʌ	ʌ	ʌ	ʌ	a	ʌ	a	i
a	ʌ	a	ʌ	i	i	a	a	a	a	a	ʌ	a	i
ʌ <sup>l</sup>	ʌ <sup>l</sup>	ʌ <sup>l</sup>	ʌ <sup>l</sup>	i	i	ʌ <sup>l</sup>	ʌ <sup>l</sup>	ʌ <sup>l</sup>	ʌ <sup>l</sup>	a	ʌ	a	i

Table 85. Prefix-stem harmonization patterns in Yonghe Qiang

Looking at the prefixes in this table, we notice that the prefixes fall into one of two groups: ‘harmonizing’ and ‘non-harmonizing’. The harmonizing prefixes include ‘up’, ‘down’, ‘in’, ‘out’, ‘downstream’, and ‘away’. The non-harmonizing prefixes include the prohibitive prefix, the ‘where’ prefix, and the ‘towards’ and ‘downstream’ prefixes. For ‘non



harmonizing' prefixes, the onset of the stem does have some minor effect on the quality of the vowels, but the vowels are relatively stable. Each group will be discussed below.

### 5.6.3 'Non-harmonizing' prefixes

There are two reasons for a prefix to fall into the non-harmonizing category. The first reason has to do with the segments of the prefix. The 'towards' and 'downstream' prefixes have sibilant onsets and apical or fricative vowels. Thus 'downstream' /si/ and 'towards' /dzi/, which are phonetically [sɿ] and [dzɿ], respectively. These phonetically apical vowels behave differently from other vowels in that they do not undergo vowel harmony. The 'towards' and 'away' prefixes can have high or low tone. I believe the reason they do not harmonize is that they are phonetically fricative vowels.

The other set of prefixes which do not harmonize are the prohibitive prefix, and the two interrogative prefixes. The reason why these do not participate in harmony is likely due to the fact that they always occur with a high tone. Chirkova (2020: 15) points out that tone and stress play a role in vowel harmony (VH) in Tibeto-Burman.

The importance of stress or tone as determinants for the direction of VH in Tibetic languages may be equally applicable to VH systems in Qiangic and Na languages. Recall that in those languages, VH is most commonly attested in prefixal structures, where it is regressive. This would be consistent with the fact that bound forms, such as prefixes, are normally unstressed (in languages with stress) or toneless (in tonal languages), and it is usually difficult to ascertain the quality of their

vowels. In this way, the stressed or toned syllables of the stem is likely to serve as the anchor of the harmony, while the unstressed / toneless vowels of the bound form serve as the target of the harmony process. While potentially worthwhile exploring, this assumption is presently difficult to test. This is because the prosodic organization of many local languages (including those better studied, such as Qiang) has not yet been described to any great extent.

The role of tone and prominence appears to be highly relevant for Yonghe Qiang vowel harmony. The first syllable of a L-H pair appears to be especially susceptible to harmonization whereas the only prefixes with invariant H tone, such as the prohibitive prefix, seem to be resistant to harmony. More work will be needed to treat this topic adequately, but Chirkova’s characterization of tone and accent as highly pertinent for vowel harmony seems to be true for Yonghe.

#### 5.6.4 The ‘harmonizing’ prefixes

Table 86 gives an overview of only the harmonizing prefixes. In this table the prefixes are arranged by their harmonizing pattern.

<i>Stem</i>	<i>tæ/a-</i>	<i>tV-</i>	<i>nV-</i>	<i>dV-</i>	<i>hV-</i>	<i>ʔV-</i>	<i>ɦV-</i>	<i>mV-</i>
i	æ	e	e	e	e	e	e	e
y	æ	e	e	e	e	e	e	e
e	æ	e	e	e	e	e	e	e

æ	æ	e	e	æ	æ	æ	æ	æ
u	a	ʌ	ʌ	o ~ ʌw	ʌ	ʌ	ʌ	o
o	a	ʌ	ʌ	--	o	o	o	o
ʌ	a	ʌ	ʌ	ʌ	ʌ	ʌ	ʌ	ʌ
a	a	ʌ	ʌ	a	a	a	a	a
ʌ <sup>ɹ</sup>	a	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>	ʌ <sup>ɹ</sup>

Table 86. The harmonizing prefixes

We see that for the eight harmonizing prefixes, there are no fewer than five different harmonizing patterns. One generalization that can be made is that the prefixes with glottal onsets pattern together.

However, onset type alone does not account for the irregularity that we find. For example, the ‘up’ and ‘away’ prefixes have the same place of articulation. They are both alveolar plosives, but behave differently with respect to how they harmonize. The ‘upwards’ prefix has [e] before [æ] whereas the ‘away’ prefix has [æ] before [æ]. Similarly, the ‘upwards’ prefix has [ʌ] before [a] whereas the ‘away’ prefix has [a] before [a]. One possible explanation for this relative lack of harmony for the upwards prefix is homophony avoidance with the continuative aspect prefix, which shares the same onset as the upwards prefix.

Using features as a shorthand for describing these five patterns, we could propose the following feature ‘specifications’.

- |                        |                           |
|------------------------|---------------------------|
| 1. CONT                | [+low], [-rhotic]         |
| 2. ‘up’, ‘upriver      | [-high], [-low], [-round] |
| 3. ‘away’              | [-high], [-round?]        |
| 4. ‘in’, ‘out’, ‘down’ | [-high]                   |
| 5. ‘NEG’               | [-high]                   |

The features listed above are constant for these prefixes and the other features are ‘copied’ from the features of the Verb stem. The pattern for the ‘away’ prefix is complicated by the variation between [o] and [ʌw] before [u]. These features still do not quite cover the differences between the negative prefix and the ‘in’, ‘out’, ‘down’ prefixes with respect to their behavior before [u] and [o]. Recall that [u] and [o] are not very distinct within the vowel space and so this fact may have to do with the irregular behavior seen here.

### 5.6.5 Harmony for strings of prefixes

The harmony processes are further complicated by the possibility of having multiple prefixes before one stem. Consider examples 37-38.

- (36) *fià-má-tà-mátè-kù-nì*  
 ORT:down-NEG-CONT-wipe-AM:go:APPL-2S  
 ‘you haven’t yet gone to wipe (it) down for them.’
- (37) *pàè-dzýpá*      *fiè-mé-tàè-dzý-kì-j*  
 pig-foot      ORT:down-NEG-CONT-bring-go-EVID  
 ‘(Mother) had not yet gone to bring down the pig foot’

These examples both have the maximal number of prefixes before the stem. In each case we see a pattern L-H-L for these prefixes. There is a strong tendency for the affix-stem boundary to be one of L-H, and the high tone helps to demarcate the stem. In the first example we have the low back vowel for all three prefixes. This example is not probative for the effect of prefix vowels on one another, because they all have the same quality and would have the same quality with another possible sub-combination of these prefixes. For example, *fià-mátè-kì-wù-nì* ‘you have wiped it down for them’ or *fià-mà-mátè-kì-wù-nì* ‘you haven’t

gone to wipe it for them’. Note also for these examples that L-H marks the shift from prefixes to stems.

However, in (38) we see that the downwards orientational prefix and the negative prefix do not harmonize with the [æ] vowel in the orientational prefix. If this were the case, we would expect the unattested \**hæ̀-mæ̀-tæ̀-dzʻ-ki-j*.

It is probably necessary to treat the strings of prefixes as separate constructions with their own properties with respect to vowel harmony. Examples of three prefixes strung together are rare in the corpus, and more data would be required to draw strong conclusions about the patterns that emerge in these data. This is a drawback of relying heavily on a corpus and not having more elicited paradigms.

## 5.7 Summary

This chapter has given an account of the bound elements which occur before the verb stem. The most complicated of these elements is the set of orientational prefixes. These prefixes are the most idiosyncratic with respect to semantics and this chapter has attempted to show how a constructional account can handle these irregular semantics. One of the recurring themes for the prefixes is that tonal alternations apply along with the prefixes and help to demarcate the construction type. Although tone plays a marginal role in differentiating lexical constructions, and minimal pairs are rare, tone plays a large role in the organization and differentiation of different construction as seen in the reduplicating constructions. Another major theme of this chapter is the degree to which Chinese loans are integrated into the Qiang Verb-complex. Chinese loans are subject to the same kinds of construction-based tonal neutralizations and also trigger the same types of vowel harmony effects on the

prefixes. This chapter has brought to light the relevancy of tone for understanding vowel harmony, which is a topic that may be fruitful to explore in more detail at a later time.

## ***Chapter 6: Verbal Suffixes***

This chapter will provide an analysis of the verbal suffixes of Yonghe Qiang. Verbal suffixes are bound forms which occur after the verb-stem. The verbal suffixes do not exhibit the same complexity as the verbal prefixes which occur in large paradigmatic sets, with as many as eight different possible prefixes in the case of the orientational prefixes, the suffixes occur as part of smaller paradigmatic sets. While the prefixes exhibit complex morphophonological alternations, most of the suffixes do not undergo vowel harmony or tonal alternations, though some are subject to both.

Qiang verbs exhibit a wide range of endings that serve to indicate both illocutionary force and the speaker's relationship to the utterance. It is useful to recognize that these endings cluster with or against each other in subsets or groups depending on the communicative function of the clause as a whole.

In Qiang narratives, topic-comment structures predominate (LaPolla & Huang 2003; Evans & Huang 2007). Huang C. (2007) has stated that for Ronghong Qiang, all clause types may be classified into topics or comments. However, for Yonghe, it is possible, on evidence from complementary patterns of verb-final endings in narrative and interactional data, to expand this typology to include: Topics, Comments, Questions, and Directives. Each of these types have a distinct set of possible endings.

In Yonghe there are four nominalizing suffixes, three aspect marking suffixes, two Associated Motion suffixes, one causative marking suffix, one adhortative suffix, one applicative suffix, three person marking suffixes, and two evidential or epistemic suffixes. Of particular interest are the person marking suffixes, the antiquity of which is a matter of some

debate in the field, and the interaction between the person marking suffixes and the epistemic marking suffixes.

The chapter is organized as follows: 6.1 introduces nominalizing constructions in Tibeto-Burman. 6.2 discusses the nominalizing suffixes, 6.3 discusses the causative marking suffix, 6.4 covers the Associated Motion suffixes, 6.5 discusses the prospective marking suffix, 6.6 covers the inchoative suffix, and 6.7 the ‘exception’ marking suffix. 6.8 deals with the adhortative, 6.9 discusses person marking suffixes, 6.10 discusses epistemic marking, 6.11 considers the interaction between person and evidential marking, and 6.12 discusses the interrogative mood marking suffixes. Finally, non-final clause markers and directives are introduced in sections 6.13 and 6.14, respectively.

## **6.1 Nominalizing constructions in Tibeto-Burman**

Nominalization is a term used to describe the creation of nouns from verbs (Comrie & Thompson 1985). Nominalization has garnered significant interest within Tibeto-Burman studies (e.g., Matisoff 1972; DeLancey 1986, 1989, 2002; Genetti 1992, 1994, 2011; Lahaussais 2002; Noonan 1997, 2008).

This section explores three recurring themes within the literature on Tibeto-Burman nominalizing constructions. The first theme is the observation that nominalizing constructions exhibit structural syncretism with relativization and genitivization. The second theme is the finding that these nominalizing constructions apply at the lexical and clausal level. The third theme regards the historical development of these constructions. For each theme, I then attempt to illustrate how the framework of Radical Construction Grammar



(Croft 2001) can be used to give a new perspective on some of the unique traits of these constructions as they exist in Yonghe Qiang.

### 6.1.1 Structural Syncretism

In the literature on nominalization in Tibeto-Burman languages, one of the recurring themes is an observation that nominalizing constructions exhibit pervasive *structural syncretism* between nominalization, relativization, genitivization, and complementation (Bickel 1999; *inter alia*; DeLancey 2002). This trait has long been recognized as characteristic of many languages of Mainland Southeast Asia (cf. Matisoff 1972; Bickel 1999; DeLancey 2002).

An example of this can be seen with the Lahu particle *ve*. Examples, from Matisoff (1972), are given in (1-3).

- (1) *ŋa ve mi-chə*  
 I PART shoulder-bag  
 ‘my shoulder-bag’
- (2) *vàʔ qhe chu ve Pichə-pā ô te yâ*  
 pig as fat PART Shan that one person  
 ‘That Shan over there who’s as fat as a pig’
- (3) *əʃi təʔ la ve thàʔ nə mâ ya mə lâ*  
 blood emerge come PART ACC you NEG get see Q  
 ‘Didn’t you see that blood that was coming out.’

Note that in these different examples we see that the Lahu particle *ve* can occur in constructions which correspond to genitive constructions, relative clauses and nominalizations in the English translations. Bickel (1995) refers to this as ‘Standard Sino-Tibetan Nominalization’ (SSTN) while Delancey (2002) has termed it ‘nominalization-

relativization syncretism’. The former term is preferred here. This is because the term ‘nominalization-relativization syncretism’ implies that two inherently distinct functions are fused together in Sino-Tibetan languages. The term SSTN describes the construction more on its own terms, without implying that there is syncretism.

If we say that a language exhibits syncretism, we are saying that it does so either relative to some other language or to some other stage of the same language. For example, we may say that a language exhibits syncretism if there is clear historical evidence to show that two once distinct categories have merged. Consider the example of Classical Tibetan. Classical Tibetan has ten distinct cases: absolutive, genitive, agentive, locative, allative, terminative, comitative, ablative, elative, and comparative (see Tournadre 2010; Hill 2012a and references therein). In the Lhasa variety of Tibetan, the genitive and agentive cases have merged due to regular phonetic sound change (see Tournadre & Dorje 2003). Thus, for Lhasa Tibetan, we may say that the Lhasa dialect exhibits structural syncretism *relative* to the structure of Classical Tibetan.

When dealing with cross-linguistic comparisons rather than different stages of the same language, the situation is more complicated. If the language upon which the comparison is being made is not made explicit, in some instances, it is what Sapir (1939) called ‘Standard Average European’. When looking at synchronic data, positing ‘syncretism’ relies on an assumption that two or more categories which should be conceptually distinct are indistinct or syncretic. It would be misguided to state that the Lahu *ve* construction exhibits ‘nominalization-relativization-genitivization syncretism’ just as it would be misguided for a Lahu-speaking linguist to write an account of English nominalization, relativization, and genitivization as having ‘*ve* disjunction’.

If we assume an implicit baseline of ‘Standard Average European’, in which genitivising, nominalizing, and relativizing constructions are clearly distinct, it is indeed surprising that many Tibeto-Burman languages use one construction for what we might assume are inherently conceptually distinct concepts. However, while genitivation, nominalization, and relativization are conceptually distinct from the perspective of ‘Standard Average European’, they are not necessarily so from the perspective of a Qiang speaker. If we do not assume a model of language based on ‘Standard Average European’ or any other language, we can recognize that languages are organized in radically different ways.

This issue of an assumed baseline of comparison is seen very clearly in grammatical descriptions of Native American languages by Jesuit scholars, which explicitly followed the “Latin model” in their descriptions. For example, writing about the Jesuit treatments of the Wendot language, Lukaniec (2018: 22) notes the following.

In grappling with grammatical analysis, the Jesuits often attempted to fit this Iroquoian language into a Latin mold, inventing infinitives to organize lexical entries, creating constructions to approximate the Latin subjunctive, and embarking on other misguided analyses.

The issue of a baseline for comparison is also an issue for grammatical treatments of Classical Tibetan. Consider again the example of the ten cases of Classical Tibetan. The earliest Tibetan grammarians modeled their descriptions of the Classical Tibetan case system on Sanskrit, which has eight cases (see Zeisler 2006; Hill 2004, 2010, 2012a; Tournadre 2010). Hill (2012a: 4) notes that, “The Tibetan indigenous grammatical tradition posits eight

cases to mirror the eight cases of Sanskrit, but this analysis does violence to Tibetan morphophonemics, drawing distinctions where none are warranted and failing to draw them where they are (Schiefer 1865: 178-180; Hill 2004: 79-81; Tournadre 2010: 92-96). Later Tibetan grammarians, such as Dorzhi Snyemlo Gdongdrug (1987), have also expressed clear criticism of this tradition.”

བོད་སྐད་ལ་རྣམ་དཔྱེ་བརྒྱད་དུ་བྱེས་པ་དེ། ལྷ་གར་གྱི་སྐད་ལ་དཔེ་ཐབས་པ་ཡིན་ཡང་། དཔེ་དེ་དོན་ལ་མི་འབྱོར་མི་ཉུང་བ་ཞིག་ཡོད་པ་  
 རེ། སྐུ་ལ་གཞིགས་རྟོགས་གནང་བའི་མཁའ་པ་སྤུས་ཡུང་ཤེས། སྐད་རིགས་གཞན་པའི་ཤན་ཤོར་དུ་མ་བརྟུག་པར། བོད་སྐད་རང་གི་ཐུབ་  
 ལུགས་དང་ལྷན་ཚུན་མཚན་ཐུབ་པ་ཞིག་གི་སྟེང་ནས་གཞི་རྩ་འཛིན་དགོས་སོ།།

The analysis of Tibetan into eight cases is based on a Sanskrit model. But the model does not work in many occasions. Every scholar who pays attention to grammar knows that very well. **Avoiding the bad habit of copying other languages, one should describe the Tibetan language only on the basis of its own structure and specificities** [emphasis added].<sup>58</sup>

Three different analyses of Classical Tibetan cases are given in Table 87. Forms bracketed by {} represent that the case in question has allomorphy and that only one of the relevant allomorphs is represented.

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<sup>58</sup> This English translation is not my own and is taken from Tournadre (2010: 94).

<i>Form</i>	<i>DeLancey (2003)</i>	<i>Hill (2004)</i>	<i>Tournadre (2010)</i>
zero	‘zero marking’	‘absolute’	‘absolute’
{-kyi}	‘genitive’	‘genitive’	‘genitive’
{-kyis}	‘ergative/instrumental’	‘agentive’	‘agentive’
-la	‘locative/allative’	‘allative’	‘dative’
-na	‘locative/illative’	‘locative’	‘locative’
{-tu}	‘terminative’	‘terminative’	‘purposive’
-las	‘ablative’	‘ablative’	‘ablative’
-nas	‘elative’	‘elative’	‘elative’
-dang	--	‘associative’	‘associative’
{-bas}	--	--	‘comparative’

Table 87. Three different analyses case in Classical Tibetan

We see that there are several differences in analysis. First, we see that the number of cases is different in each work. DeLancey (2003) lists only eight cases and Hill (2004) only nine. Hill (2012a) recognizes Tournadre’s (2010) contribution and concedes that there are ten cases in Classical Tibetan.

Another area of differences is in preference over what to call the cases. For the Tibetan case {-tu}, Delancey (2003) and Hill (2004) prefer ‘terminative’ whereas Tournadre (2010) prefers ‘purposive’. Yet, this difference is inconsequential. What is important is that it is recognized as a distinct case.

The last difference is in the use of compound forms by DeLancey (2003): {-kyis} ‘ergative/instrumental’, -la ‘locative/allative’, and -na ‘locative/illative’, which implies syncretism. About these kind of compound terms, Hill (2010: 258) states the following.

Such terminology suggests that these cases **do not exist in their own right, but rather consist of combinations of more basic components.** **The opposite is true:** the case marked with *-kyis* and the case marked with *-na* are structural components of Tibetan; how one chooses to analyze the semantics of these cases is a matter of taste. The Greek dative combines the functions which in Sanskrit are covered by the dative, instrumental, and locative. The Sanskrit instrumental combines the functions which in Finnish are covered by instructive (instrument of means) and comitative (instrument of accompaniment). It would be silly to call the Greek dative the 'dative-instructive-comitative-locative'. To do so would be to confuse a case with its use, and to describe one language by implicitly comparing it to others rather than by accepting the language on its own terms. [emphasis added].

I agree with Hill that the issue of whether to call Tibetan {-tu} a 'terminative' or 'purposive' is a matter of taste. What is important is to recognize that these cases exist in their own right and are not components of other more basic building-blocks. Within the framework of Radical Construction Grammar (Croft 2001), the construction is basic and are not instantiations of any universal set of building blocks of language (i.e. nouns, verbs, adjectives, nominalizers, genitivizers, relativizers, etc.). In the framework of Radical Construction Grammar, thus we might refer to the construction in (1-3) as 'the Lahu *ve*

construction' without a need to invoke syncretism, which would connote an implicit standard.

Syncretism is in the eye of the beholder. However, this is not to say that there is not any differentiation between the different uses of a given construction. A given construction will have more or less prototypical uses depending on the evolutionary pathway of that construction (Bybee & Pagculia 1985; LaPolla 2004). LaPolla (2004: 62-63) discusses the prototypicality with respect to the evolution of nominal relational morphology in Tibeto-Burman as follows.

There is abundant evidence that speakers often use existing linguistic units in new ways that are semantically related, but stretch the original category semantically, possibly encroaching on related categories. That is, the new usages often deviate to some extent from the prototype meaning of the form, and this not only gives the category its fuzzy edges, but is often also responsible for diachronic change (see in particular Brugman 1983, 1984; Sweetser 1990). Very often a form will be extended to more and more situations that are more and more at variance with the prototypical meaning of the form, possibly to the point of changing the definition of the category. Bybee & Pagliuca (1985: 75) argue that this type of metaphorical extension is what drives grammaticalization, and they suggest that human language users have a natural propensity for making metaphorical extensions that lead to the increased use of certain items. The metaphorical extensions are

cognitively based, and are similar across languages. The increased use of an existing form for new uses is a function of economic motivation (Haiman 1983), as it is easier to use a form already in the language than to create a new one. The extension is cognitively based on connections ('family resemblances', in Wittgenstein's terminology) that the speakers perceive between the meanings of the two uses. These connections are not objective, but subjective. As argued by Lichtenberk (1991: 477), 'what counts is the connections (such as similarity) that people perceive or indeed form between phenomena, not some objectively existing connections. Connections between phenomena exist only to a perceiving mind'. It is these connections that motivate the extensions of meaning, so the extensions are not arbitrary, though the connections in no way necessitate the extension.

In the case of Yonghe Qiang we find several nominalizing constructions with a range of related functions. One example is the *-sɿ* construction. The approach of this chapter will be to lay out the various uses of the constructions in question, while emphasizing that the uses share a family resemblance and trying to avoid invoking structural syncretism whenever possible.

### **6.1.2 Lexical nominalization and clausal nominalization**



Another noted characteristic of nominalizing constructions in many Tibeto-Burman languages is that they operate at the lexical level for derivational nominalization, and also at the clausal level, for clausal nominalization (Genetti et al. 2008; Genetti 2011).

In many languages, what is a lexeme and what is a clause is not entirely clear (see LaPolla 2015b). Within the framework of RCG, both are constructions with different degrees of schematicity and we do not need to invoke a difference between syntax and lexicon unnecessarily.

Consider the Qiang construction *dzi-sì* eat-NMZ. This is a Type I Active Verb in the *-sì* construction frame. This can be translated into English as a lexeme ‘food’ or a headless relative clause ‘that which is eaten’. We see that there are two translations possible in English, one lexical, and one syntactic, but there is only one structure in Qiang. I am agnostic about whether native speakers of Qiang process constructions such as *dzi-sì* as decompositional or non-decompositional. My intuition is that common forms like ‘food’ are processed as non-decompositional at least some of the time, but more rare forms with the *-sì* construction, such as *zi-téi tsi-sì* demon-house build-NMZ ‘demon house building instruments’ are rarely if ever processed as non-decompositional.<sup>59</sup> The general equivalency of ‘lexemes’ and ‘headless relative clauses’ in Yonghe Qiang is illustrated in (4).

- (4) a. tsí-tà    tɛ̀w    mə́zì    mà-ná  
       this-CLF just    Qiang NEG-know:1  
       ‘This one, well, I don’t know (the) Qiang (term)’
- b. mə́--    mə́zì    jáé  
       Qiang-    Qiang tobacco

<sup>59</sup> This is not unlike the difference in the *-er* suffix in *rule-follower* vs. the *-er* in *computer*. As a speaker of English, I do not generally think about a *computer* as *that which computes*. However, I may be induced into temporary awareness of the compositionality of *computer* if it is placed in juxtaposition with *washer dryer*, *panic buyer*, *climate change denier*, and other items with *-er* suffixes.

‘Qiang ... Qiang tobacco.’

c. mǎ'zì-le            tʰé-sì  
Qiang-PL            smoke-NMZ  
‘what Qiang smoke’

In this example the speaker cannot think of the relevant word and creates two novel forms that are coreferential. Within the framework of RCG, syntax and lexicon are treated as a continuum (see Croft 2001; Langacker 1987: 25-27). Thus, RCG can make sense of the reason why some constructions, such as the *-sì* construction are unitary constructions which or may not correspond to different types of structures in other languages.

### 6.1.3 Diachrony

The third issue is the historical relationship between nominalizing and relativizing constructions. Genetti et al. (2008: 135), discussing this issue note the following.

According to DeLancey, “the nominalization function is chronologically and systematically prior to relativization... merely one specialized function of nominalization” (2002: 66). On the other hand, LaPolla states that for the historically prior forms “we reconstruct ... a relative clause structure, not a nominalization structure...as it is the former that developed the function of the latter” (2006: 17).

Genetti notes that these this relationship depends on which type of nominalization is being referred to and conclude that “Derivational nominalization and relativization each give rise to

the other, like chickens and eggs.” (Genetti et al. 2008). This coincides with a view of these structures as being two sides of the same coin within Qiang. The unitary nature of these structures is also well accounted for in an RCG approach.

## 6.2 Nominalizing constructions in Yonghe Qiang

Tibeto-Burman languages vary in terms of the number of nominalizing constructions. Some Tibeto-Burman languages, such as Manange, have as few as one nominalizing suffix, which is used for all nominalizing constructions. Others, such as Mongsen Ao, have as many as seven different specialized nominalizers (see Genetti et al. 2008; Genetti 2011). In Yonghe Qiang, there are five nominalizing elements: *-sì*, *-mù ~ -mú*, *-pù ~ -pú*, and *-kà*. I use the term ‘nominalizing constructions’ for Yonghe Qiang out of convenience. Table 88 lists these different constructions.

<i>Construction Form</i>	<i>Primary Meaning</i>
<i>-sì</i>	source
<i>-mù ~ -mú</i>	human agent
<i>-pù ~ -pú</i>	human non-agent
<i>-kà</i>	property

Table 88. The four nominalizing suffixes of Yonghe

The suffixes *-mù ~ -mú* and *-pù ~ -pú* exhibit tonal alternations whereas the others do not. The degree of functionality of these forms is varied. In many Tibeto-Burman languages there are nominalizing constructions which are used in the citation form of the verb. For example, in the neighboring Rgyalrong language varieties, the use of *kV-* nominalizing prefixes for

citation forms is ubiquitous. We do not find these types of ‘gerundive’ nominalizing constructions in the citation form for Yonghe Verbs.

### 6.2.1 The *-sì* and *-mù* ~ *-mú* constructions

We begin our discussion of the nominalizing constructions with an overview of the two primary constructions, *-sì* and *-mù* ~ *-mú*, before discussing each in depth. Examples of *-sì* and *-mù* ~ *-mú* are given in (5) and (6).

- (5) a. t<sup>h</sup>é  
      ‘drink’,  
      b. t<sup>h</sup>é-sì  
          ‘drinks (n.)’ OR ‘that which is drunk’  
      c. t<sup>h</sup>é-mù  
          ‘drinker’ OR ‘s/he who drinks’
- (6) a. dzí  
      ‘eat’  
      b. dzí-sì  
          ‘eats (n.)’ OR ‘that which is eaten’  
      c. dzí-mù  
          ‘eater’ OR ‘s/he who eats’

Construction with *-sì* and *-mù* ~ *-mú* can have an incorporated Noun. This is illustrated in examples (7-8).

- (7) eý-hùlá-sì  
      tooth-wash-NMZ  
      ‘toothbrush’
- (8) mú<sup>1</sup>pà<sup>1</sup>-xùsì-mù  
      deity-worship-NMZ  
      ‘worshippers’

Examples (9-10) illustrate the use of the both *-sì* and *-mù ~ -mú* on the same Verbs. Importantly, these examples also illustrate that these constructions can take a composite construction such as ‘demon-house build’ as part of the X+Type I predicate construction.

- (9) a. [zìtèí tʂí-mù] tʂ-k<sup>h</sup>úlù-j  
 demon-house build-NMZ ORT:up-appear-EVID  
 ‘a demon house builder has shown up.’
- b. [tùwáj ɛyǎ-mù] tʂ-k<sup>h</sup>úlù jì-wù-j  
 hell light-NMZ ORT:up-appear say-APPL-EVID  
 ‘a lighter of hell has appeared (he) said to him’
- (10) a. pǎjǎlypù tɛʌw [zì-tèí tʂí-sì] ʔʌ-p<sup>h</sup>útù-wù-j  
 PN just demon-house build-NMZ ORT:in-ready-APPL-  
 EVID  
 ‘Pǎjǎlypu readied his demon-house-building instruments for them’
- b. [tùwáj ɛyǎ-sì] ʔʌ-p<sup>h</sup>útù-wù-nǎ-ni  
 hell light-NMZ ORT:in-ready-APPL-LNK-TOP  
 ‘and having readied his hell-lighting instruments for them ...’

In (9), ‘to build a demon house’ and ‘to light hell’ are suffixed with *-mù ~ -mú* to create ‘demon temple builder’ and ‘hell lighter’, respectively. In (10), the same two Noun-Verb combinations are suffixed with *-sì* to yield what might be translated as ‘demon house building tools’ and ‘hell lighting tools’, respectively.

In the majority of observed cases, there is no meaningful distinction between a ‘deverbal nominal lexeme’ and a ‘headless relative clause’. The only difference is the degree of routinization and frequency of retrieval, which may affect how a speaker thinks of the internal composition of the constructions. The form ‘toothbrush’ is a more likely candidate

for fossilization than ‘demon house building tools’, because brushing one’s teeth is a regular activity whereas building demon houses is not.

At least some of these nominalized constructions may be considered bistructural (*sensu* Genetti 2007: 375) in that they are amenable to two possible interpretations, both of which are available to the speaker. In this case, the nominalized constructions are bistructural in that they can at once facilitate a more literal interpretation of the constructions as compositional or as non-compositional. Consider the marginally idiomatic form given in example (11).

- (11) pǎ-tsʰi mλ-dzi-mú  
pig-flesh NEG-eat-NMZ  
‘Hui’

At first glance, this term looks like it can best be translated into English as ‘those who don’t eat pork’. In use, this word usually refers to the 回 *Hui* nationality residents of Rngaba Prefecture in Sichuan Province, who are predominately practicing Muslims. Thus, the usual meaning of the term is more specific, or non-predictable, than the structure alone suggests, indicating a certain degree of fossilization. However, this term *is* flexible in that the compositional reading is obvious, and accessible and could also be used to refer to practicing Muslims from other regions as well. This is unproblematic within the framework of RCG as this form is a unique construction with unique semantics.

Nevertheless, there are some instances where, upon close examination, a meaningful degree of fossilization can be recognized. Consider, for instance, the form gʷsi ‘clothing’. Etymologically, this is transparently a ‘deverbal nominal’ composed of the verb ‘to wear’

plus the *-sì* suffix. We find this construction in other Qiang varieties as well, e.g., Ronghong *guəs* ‘clothing’, Longxi *guí sì* ‘clothing’.

However, in Yonghe this form is unlike words such as *dzi-sì* ‘food / that which is eaten’, in that it cannot be as easily interpreted as decompositional. This is because the verb-stem has a different shape outside of this construction. The usual form for ‘to wear’ is [jý] and not \*[gǎ]. The verb *jý* ‘to wear’ takes the upwards directional prefix, *tì-jý*. Both the fossilized form of the stem and the regular form of the stem occur in (12).

- (12) *gǎsì*      *tì-jý*                      *tɛ<sup>h</sup>í-j*  
 clothing ORT:up-wear      need-EVID  
 ‘time to get dressed!’

The stem with the velar initial appears to be archaic, while the stem with a yod-initial appears to be innovative. Evidence for this analysis comes from comparison with other varieties of Qiang, all of which have velar initials.

- a. Longxi      *gù*      ‘to wear’,
- b. Mianchi      (*tè*) *gù* ‘to wear’
- c. Taoping      *guə<sup>33</sup>* ‘to put on / wear’
- d. Ronghong *guə*      ‘to wear’

Further evidence comes from apparent cognates outside of Qiang.

- a. Tibetan གོན *gon* < \**gwan* ‘to wear’
- b. Tangut 4906 □ *gjwi* 2.10 ‘to put on clothes, to wear (clothes)’ < \**ɲgwja*
- c. Chinese 冠 *guàn* < MC \**kwan* H < Old Chinese \**k.ʔon-s* ‘to crown, put on a cap’.

This is not to say the clear similarity between *gǎsì* ‘clothing’ and *dzi-sì* ‘food’, is lost on native speakers, only that the former cannot be as readily understood as decompositional, because the Verb has undergone phonetic change outside of this fossilized construction.

### 6.2.1.1 Phonological alterations

Neither the *-sì* nor *-mù* ~ *-mú* exhibit segmental alternations. That is, neither suffix exhibits vowel harmony. They do, however, exhibit different tonal behavior. The *-sì* suffix invariably has a low tone whereas the tone of the *-mù* ~ *-mú* suffix varies. This variation is dependent on the tone class of the verb stem, as well as other factors which will be discussed below.

### 6.2.1.2 Productivity

Both the *-sì* suffix and the *-mù* ~ *-mú* constructions are productive. Table 89 gives examples of novel forms created using *-sì* and *-mù* ~ *-mú*.

<i>Form</i>	<i>Gloss</i>	<i>English 1</i>	<i>English 2</i>
wújè-sì	call-NMZ	‘telephone’	‘that which is called’
wújè-mù	call-NMZ	‘caller’	‘s/he who calls’
tsàmǎe-sì	watch-NMZ	‘television’	‘that which is watched’
tsàmǎe-mù	watch-NMZ	‘viewer’	‘s/he who watches’
tɕʰá tɕʰà-sì	run-NMZ	‘automobile’	‘that which is run /operated’
tɕʰá tɕʰà-mù	run-NMZ	‘driver’	‘s/he who runs /operates’

Table 89. Chinese borrowings with Qiang nominalizing suffixes

For some of the nominalized pairs in Table 89, there is an asymmetry such that one of the forms is more conventionalized than the other. For example, the form given for ‘automobile’ is more widely used than the form given for ‘driver’. Although *-sì* and *-mù* ~ *-mú* have many similarities, there are also key differences. Below, each suffix will be discussed individually.



### 6.2.2 The *-sì* construction

The *-sì* nominalizing construction is widely used in Yonghe Qiang. Its uses encompass what typologists would call: nominalization, relativization, genitivization, adverbial clauses, ablative marking, and agentive marking constructions. As discussed above, this form nominalizer occurs in both fossilized and decompositional constructions. The use of *-sì* is also complicated by the possibility of recursive usage, as will be discussed below. Rather than alternating between the glossing labels such as INS, GEN, REL, ABL, and AGT, I will use the gloss NMZ for this form in all instances. My hope is that this will help the reader to understand *-sì* from the perspective of a speaker of Yonghe Qiang.

The suffix *-sì* can attach to Active Verbs or predicates to form Nouns. Example (13) illustrates the suffix being used to create deverbals nominals.

- |      |    |                  |            |     |                     |                 |
|------|----|------------------|------------|-----|---------------------|-----------------|
| (13) | a. | zítè             | ‘to play’  | vs. | zítè-sì             | ‘toy’           |
|      | b. | dzí              | ‘to eat’   | vs. | dzí-sì              | ‘food’          |
|      | c. | t <sup>h</sup> é | ‘to drink’ | vs. | t <sup>h</sup> é-sì | ‘drink(s) (n.)’ |

Deverbal nominals can also have incorporated Nouns when the Noun is the ‘object’ of the Verb. Examples are given in (14-15).

- |      |                 |
|------|-----------------|
| (14) | ὲy-hùlá-sì     |
|      | tooth-wash-NMZ  |
|      | ‘toothpaste’    |
| (15) | tsù-zá-sì       |
|      | water-scoop-NMZ |
|      | ‘ladle’         |

In some instances, the nominalizer may lend a meaning that is more locational than strictly instrumental. Examples are given in (16-17).

(16) mú'pà<sup>1</sup>-jè-sì  
deity-live-NMZ  
'altar'

(17) kỳ-tshwáe-sì  
vegetable-plant-NMZ  
'garden'

In some cases, we see uses that are at once both 'instrumental' and 'locative'. Drawing a sharp line between these different uses is unnecessary in Qiang. Examples are given in (18-19).

(18) ɛ̀i-tɛ<sup>h</sup>y-sì  
cow-to.pen-NMZ  
'cow pen'

(19) pàe-jé-sì  
pig-live-NMZ  
'pigsty'

The word 'cow' has a high tone in isolation. The word 'pig' has a low tone in isolation. Both have a low tone in these constructions. These two forms are representative of the general pattern. Thus, the tone is constructional, in this case is invariantly L-H-L, irrespective of the lexical tone.

When used with Stative Verbs, the -sì construction gives the meaning 'that which is X'. Examples are given in (20-21).

- (20) mλ'sájý hál-tλ tɛłw nłká bǎ'-sì wú-j  
 ceremony that-CLF just most be.big-NMZ COP-EVID  
 'Marsajy that one is the greatest from (among) (the ritual ceremonies).'
- (21) hùlé hál-tλ tɛłw nłká tsǎ'-sì wú-j  
 3PL that-CLF just most be.small-NMZ COP-EVID  
 'They are the least from (among) (the order of shamans).'

In these cases, the 'head' or 'topic' of these constructions is only recoverable within the greater context of the conversation. In (20-21) though it would be possible to add a Noun after the nominalized Verb and before the copula, it is not necessary as it is recoverable from the context.

In Yonghe, *-sì* can also occur at the end of an inflected Type I Verb to indicate a causal relationship. Consider the two clauses in (22).

- (22) a. ó zyètú tsá tɛ-lý-jí-sì  
 DISC road here ORT:up-come-CSM-NMZ  
 well, from coming up this here road,
- b. kánù-wùnǎ tɛ<sup>h</sup>y fìè-thí  
 1S.REFL-TOP sweat ORT:down-put  
 'as for myself, I was sweating'

When attached to Type II constructions, Yonghe Nouns, *-sì* can be used in constructions that correspond to genitivizers, relativizers, ablative markers, and agentive markers in other languages.

Consider examples (23-24). For these examples, a 'genitive' and 'ablative' reading are both possible in English. There is no difference within Qiang.

- (23) ʔàpá pùmó-sì kùsì hál-tà  
 grandfather PN-NMZ story that-CLF  
 ‘That story from/of Aba Pumo’
- (24) méjkwè-sì wàwá ʔá-tà wú-j  
 America-NMZ child one-CLF COP-EVID  
 ‘It was a child from/of America’

Consider example (25). In this example a ‘genitive’ reading in English is very difficult but an ‘ablative’ reading is very natural. These are one and the same in Qiang.

- (25) tàtá-sì ʔè-t<sup>h</sup>jæ  
 far.away-NMZ ORT:in-bring:1  
 ‘I brought (the horse) from afar’

In (26), the speaker is talking about the origins of shamanism in Li County. Li County is southeast of Mao County. The speaker says that the two groups share the same lineage which came from the north. I am aware that the NMZ label is not really appropriate for these instances.

- (26) a. kjèpú tsí-tà  
 root this-CLF  
 this root,
- b. hùlé k<sup>h</sup>ájhà-sì kjèpú tsí-tà  
 3PL beginning-NMZ root this-CLF  
 This beginning root of theirs,
- c. tsé húj tsá-sì fí<sup>l</sup>-k<sup>l</sup>-j  
 1PL above here-NMZ ORT:down-go-EVID  
 ‘It went down from us here above,’

In (27) we see an example which some imagination is needed to see how the *-sì* construction is being used. Note that for (27d) the English passive voice is a close approximation of the semantics in Qiang, but this is not a passive structure as it doesn't involve argument demotion. The semantics in Qiang are the same.

- (27) a. tɕjè hé-kjè-ní  
 son that-CLF-TOP  
 'As for that son,'
- b. bɿlé ʔè-kjé dzi-sé-wù-j  
 wife one-CLF ORT:to-put-APPL-EVID  
 '(he) was brought a wife'
- c. mǎ-s- mǎ-sì  
 mother- mother-NMZ  
 'by/from (his) mother'
- d. mǎ hé-kjè-sì bɿlé ʔè-kjé dzi-sé-wù-nà  
 mother that-CLF-NMZ wife one-CLF ORT:to-put-APPL-LNK  
 'the son was brought a wife by/from his mother,'
- e. tɕjè hé-kjè mà-tápù-j  
 son that-CLF NEG-like-EVID  
 'the son was unhappy (didn't like the wife).'

The *-sì* construction occurs in a compound construction with the *-næ* linking construction: *-næsi*. In these cases, the compound construction has a kind of causal semantics. The causal semantics are a very natural extension of the more core meaning of this construction as indicating 'source' (see LaPolla 2004). This is intuitive for an English speaker if one considers the English example sentence, 'He got sick from smoking too many cigarettes.'

- (28) a. ká hál-jàè mù.xwá  
 1S that-night sky.be.dark  
 ‘that night I,’
- b. nápù<sup>1</sup>=j-há sí-kál<sup>1</sup>-næ  
 Lapu Village=PAT ORT:downriver-go-LNK  
 Went downstream to Lapu Village and
- c. ĩpù tál-tsu-næ  
 demon ORT:up-meet-LNK  
 ‘encountered a demon and’
- d. dò-kù-næsi  
 ORT:away-fear-LNK  
 ‘because I got scared,’
- e. nápá<sup>1</sup> ?é-j tál-şál-næ  
 rock one-CLF ORT:up-pick-LNK  
 ‘I picked up a rock and,’
- f. kánú-kánú wùjé=wùjè kálà ?è-lýæ  
 1S.REFL shout=RED ADV ORT:in-come:1  
 ‘came in calling myself. I called myself as I came in.’

As in other Tibeto-Burman languages such as Chyantál (Noonan 2008; *inter alia*), and Newar (Genetti 2007: 498-503), ‘nominalizing’ constructions can occur recursively. Consider example, example (29).

- (29) a. tsùkjé-ha te-pètèi táljí hál-tà hál-k<sup>h</sup>lìé-næsi  
 back-LOC ORT:up-hide ax that-CLF ORT:out-take-LNK  
 ‘and by taking out the hatchet hidden in back,
- b. fià-tshwá-si tǝǎw  
 ORT:down-chop-NMZ just  
 ‘by chopping just,’
- c. éi hál-tà=j kál.pá.tşì hál-tà=j  
 ox that-CLF=PAT head that-CLF=PAT  
 ‘that ox, it’s head,’

- d. fià-ts<sup>h</sup>wá-wù-næ  
 ORT:down-chop-APPL-LNK  
 ‘gave it a chop down and ...’

Note that for (29a) it would be possible to add *-sì* after the form for ‘hide’, but it is unnecessary to do so. There would be no significant difference in meaning other than the extra *-sì* would be seen as slightly more verbose and a little clumsy. There is also only one hatchet in the story and so it is not necessary to specify that it is one of many. The *-sì* at the end of (29a) here gives the meaning ‘from taking out the ax hidden in back’.

The most complicated instances are when there are recursive uses of *-sì* within the same clause. Example (30) is from a recording of a Pear Film retelling. The utterance in (30f) is all uttered under one ‘intonation unit’ yet it appears possible that these are appositional elements marked with *-sì*. The distinction between apposition and embeddedness (see Givón 2015) is a gradient one and I see no way of justifying a claim either way here.

- (30) a. tsí-kì            lów.h<sup>l</sup>            tsí-kì            wó  
           this-CLF        old.man            this-CLF        DISC  
           ‘so this man, yeah?’
- b. lì<sup>l</sup>            tɛ<sup>h</sup>y-kì            tì  
           pear        pick-AM:go        DISC  
           ‘He went to pick pears.’

[2 irrelevant lines omitted]

- c. lì<sup>l</sup>            tɛ<sup>h</sup>y-kì-næ-ni  
           pear        pick-AM:go-LNK-TOP  
           ‘having gone to pick pears,’

- d. fiè-te<sup>h</sup>y-næ  
 ORT:down-pick-LNK  
 ‘Having picked (them),’
- e. kjàtsá ʔè-sè-næ  
 below ORT:in-put-LNK  
 ‘having put (them) away below,’
- f. kùlú-tsù-mù-le-sì                      míe-sì                      tè-xý-wù-j  
 steal-do-NMZ-PL-NMZ    person-NMZ                      ORT:up-steal-APPL-EVID  
 ‘people who were thieves stole them from him.’

The *-sì* construction can even be applied directly to another construction with *-sì*.

Consider examples (31-32) which are both from the same traditional story. In this story, a man is telling his father-in-law about how to handle a horse.

- (31) ʔú zipá-sì                      sán-hà                      fiè-zétè-næ  
 2S hand-NMZ    three-CLF                      ORT:down-strike-LNK  
 ‘you strike three times by hand and...’
- (32) ʔú zipá-sì-sì                      mà-wù-lá                      wú-næ  
 2S hand-NMZ-NMZ                      NEG- be.willing-LNK                      COP-LNK  
 ‘if from from your hand doesn’t work, you....’

This section has given an overview of the ways *-sì* is used synchronically though there is much more that could be said about this, but this will have to suffice for the time being.

### 6.2.2.1 *The diachrony of -sì*

This section explores the etymology of the *-sì* construction. Looking across the various dialects of Qiang, it is clear that the *-sì* construction has a much broader use in Yonghe than in other varieties. Table 90 gives a comparison across select Qiang varieties.



	<i>Human Agent</i>	<i>Human Non-Agent</i>	<i>Source</i>	<i>Genitive</i>
Yonghe	-mù ~ -mú	-pù ~ -pú	-sì	-sì
Mianchi	-mu	-pú	-sə	-ki
Mawo	-n	-p	-ji	-ki
Ronghong	-m	-p	-wu	-tɛ

Table 90. Nominalizers and case markers in Qiang

This is but a small sample of the large number of Qiang varieties (see Huang C. 2009 for discussion). Yonghe does exhibit syncretism relative to the other varieties in that it does not have the *\*ki* ‘genitive’ marker. The *-sì* construction has presumably replaced it. We might call the *-sì* suffix ‘source’ marking (LaPolla 2004) as this covers the broad range of functions attested for this construction.

There are, at present, two possible stories for the diachrony of the Yonghe Qiang *-sì* construction. The first is that it is cognate with similar forms in other Proto-Tibeto-Burman languages and is reconstructable to an earlier stage.

Benedict (1991) has suggested a Proto-Tibeto-Burman ‘ergative’ marking suffix *\*-s* which was lost in all but a few languages, such as Tibetan and Tamangic (both Bodic languages). LaPolla (1995) argued against such a reconstruction on the basis that more languages should have the suffix if it is to be reconstructed in the shared ancestral language. LaPolla (1995) argues that because the *\*s* suffix is restricted to Bodic, it is not reconstructable noting that if it were to be reconstructed, we would find it in a wider range of sub-branches.

The recognition of the *\*si* ‘source’ marker in Qiang as potentially cognate with the case marking suffixes in Tamangic and Tibetan is potential evidence in favor of reconstructing

\*sV. The correspondence of Qiang [s] to Tibetan <s> is apparently regular. Table 91 gives evidence for this point. Luoduo Qiang data are from the author’s fieldwork.

<i>Tibetan</i>	<i>Wylie</i>	<i>Yonghe</i>	<i>Luoduo</i>	<i>Gloss</i>
ལྷ	<i>su</i>	sí	sə	‘who’
གསར	<i>gsar</i>	sí	ksə	‘new’
ཟས	<i>zas</i>	dzí-sì	dzəs	‘food’

Table 91. Correspondence between Tibetan <s> and Qiang [s]

Apart from Tibetan and West-Himalayish, traces of \*-s nominalization are found in Rgyalrongic languages (Lin X. 1993; Jacques 2003, 2016; Sun 1998: 129). LaPolla (1995: 217) also argues that this \*-s form should not be reconstructed for Proto-Tibeto-Burman because, “we do not see this kind of layering in the functional domain of agentive marking, and this is one more type of evidence that this is not a functional domain that involved overt marking in the proto-language.”

I would argue that we do see layers of functionality within Tibetan. For example, we see the \*s element used in deverbal nominals as in *za* ‘eat’ vs. *zas* ‘food’ and *gro* ‘go’ vs. *gros* ‘gait’. Tibetan -s also combines with other morphemes to create different case markers (Jacques 2016). Examples include the ergative {-*kyis*}, the comparative -*bas*, the ablative -*las* and the relative -*nas*, the last two of which are compound cases combining the -s element with the allative -*la* and the locative -*na* (see thorough discussion by Hill 2012b). These case markers are used to build various types of subordinate clauses (Tournadre 2010). Jacques (2016) points out that the -s suffix is found in Tibetan adverbs such as *jas* ‘from above’ and states that, “nominalization by -s suffixation was already only very marginally productive in Old Tibetan.”

LaPolla (2004) notes that ‘source’ is the primary meaning for the *-s* forms in Tibeto-Burman more generally. He connects this primacy of the ‘source’ meaning with acquisition studies in other languages as well. LaPolla (2004: 65) states the following.

I believe this cline of markedness within the agentive-instrumental-ablative type is due to the increasing semantic deviation (or abstraction) from the prototypical meaning of the ablative as a physical ‘source’ or ‘origin’. The extension was from ablative to instrumental, to agentive, and to clause-connecting ‘cause’ marker.

There is also evidence from languages acquisition studies (see Clark & Carpenter 1989) that children begin with a universal conceptual category of Source which aside from true locative source, includes agents, causes, possessors, natural forces, standards of comparison, and prior events. They mark this category using the form for locative source. For example, in English children consistently acquire the locative use of *from* before any other use and then extend the use of this form to agents and causes, and then extend this form to agents and causes, and further to possessors and standards of comparison (Clark & Carpenter 1989: 11). They use *from* for these extended meanings even though these uses are not conventional in English. That is, they are not based on adult language behavior. We can see from this the ablative use is

more prototypical than the abstract uses and that the more abstract uses are extensions of the ablative use.

LaPolla & Huang (2003) do not believe that *\*s* marking should be reconstructed for Proto-Tibeto-Burman and have suggested that the *\*sV* suffix in Qiang may be related to Tibetan  $\text{ᑭ}$  *sa* ‘earth’. The development of Tibetan  $\text{ᑭ}$  *sa* ‘earth’ into a more general grammatical construction is found in many varieties of Tibetan, including Dongwang (Bartees 2008; Genetti 2011), as well as the variety of Kham spoken in Danba County in Sichuan (Huang C. 2008: 11 fn 5), as well as Lhasa Tibetan (Tournadre & Dorje 2003). More work will be needed to unpack the relationship between Qiang *\*sV* and Tibetan  $\text{ᑭ}$  *sa* ‘earth’.

### 6.2.3 The *-mù* ~ *-mú* nominalizing construction

The nominalizing suffix *-mù* ~ *-mú* functions as a nominalizer but does not have uses that correspond to relativizing or genitivizing structures in English. The nominalizing suffixes do not exhibit vowel harmony. That is, the vowel of the suffixes is constant regardless of the stem vowel.

In the Ronghong variety, the cognate suffix *-m* may be used for non-human referents. This is illustrated in example (33) (from LaPolla & Huang 2003: 227)

- (33) mutu-la-p<sup>h</sup>ie-m                      wə  
sky-LOC-fly-NMZ                      bird  
‘bird flying in the sky’ or ‘birds that fly in the sky’

This usage is not possible in Yonghe Qiang. Table 92 gives examples of constructions with *-mù* ~ *-mú* in Yonghe.

<i>Verb-stem</i>	<i>Nominalized Form</i>	<i>Gloss</i>
‘to study’	l <sup>1</sup> zì-ɛ́y-mù	‘student’
‘to release’	k <sup>h</sup> y-ɛ́í-mù	‘hunter’
‘to herd’	ɛ̀i-tý-mù	‘cattle herder’
‘to sew’	gýsì-jí-mù	‘sewer’
‘to strike’	ɛ̀imù <sup>1</sup> -zétè-mù	‘blacksmith’
‘to watch’	tsæmæ-mù	‘nightwatch’
‘to remove’	k <sup>h</sup> ilè-mú	‘midwife’
‘to beg’	k <sup>h</sup> à <sup>1</sup> ʂá-mù	‘beggar’
‘to steal’	xý-tsù-mù	‘thief’
‘to be lazy’	xá <sup>1</sup> -mù	‘lazy person’
‘to act’	k <sup>h</sup> ik <sup>h</sup> jáe-mù	‘actor’

Table 92. Forms with the *-mu* human nominalizer in Yonghe

The *-mù* ~ *-mú* suffix exhibits tonal alternations based on the tonal class of the stem. The pattern of tonal alternation for monosyllabic forms suffixed with *-mù* ~ *-mú* is given in Table 93.

<i>Type</i>	<i>Verb</i>	<i>Nominalized Form</i>	<i>Gloss</i>
I	sé	sé-mù	‘s/he who puts/places’
II	lǚ	lǚ-mù ~ lǚ-mú	‘s/he who comes’
III	dzǐ	dzǐ-mù ~ dzi-mú	‘s/he who eats’
IV	t <sup>h</sup> é	t <sup>h</sup> é-mù	‘s/he who drinks’

Table 93. Monosyllabic stems with -mù ~ -mú

For the verbs with tonal types II and III, both pronunciations listed are possible. The first pronunciation is more characteristic of careful speech and the latter more characteristic of rapid speech. The situation is further complicated by the presence of tonal polarity found in the negated forms of these denominals. Table 94 gives the corresponding negated forms.

Type	Verb	Nominalized Form	Gloss
I	sé	mè-sé-mù	‘s/he who doesn’t put/place’
II	lǚ	mè-lý-mù	‘s/he who doesn’t comes’
III	dzǐ	mà-dzì-mú	‘s/he who doesn’t eat’
IV	t <sup>h</sup> é	mé-t <sup>h</sup> è-mù	‘s/he who doesn’t drink’

Table 94. Further tonal alternations stems with -mù ~ -mú

Note that for the negated forms, there is less variation. The tonal melody for constructions with Types I-II are in contrast with III and IV.

In addition to the tonal class of the verb root, the tone of the -mù ~ -mú suffix is also dependent on other external factors. Consider the difference between ‘to eat’ (Type III) (34) and ‘to drink’ (Type IV) (35). In each case there is a low-tone Noun preceding the verb which is incorporated into the Verb-complex.

In Yonghe Qiang, Nouns may be incorporated into the Verb-complex when the verb-stem is unprefixed. The tone of the lexical verb is neutralized in this context and the melody for this construction is L-H-L.

- (34) kǚ-dzì-mù  
 vegetable-eat-NMZ  
 ‘those who eat vegetables’ OR ‘vegetable-eater(s)’

- (35) hì-t<sup>h</sup>é-mù  
 wine drink-NMZ  
 ‘those who drink wine’ OR ‘wine-drinker(s)’

Consider examples (36-37). In these cases, when the verb is prefixed, the preceding Noun is part of the same construction as the Verb, and the lexical tone of the stem determines the tone of the suffix.

- (36) kǎ            mǎ-dzì-mú  
 vegetable NEG-eat-NMZ  
 ‘those who don’t eat vegetables’
- (37) hǐ            mé-t<sup>h</sup>è-mù  
 wine NEG-drink-NMZ  
 ‘those who don’t drink wine’

The *-mù* ~ *-mú* suffix has a high tone in (36) and a low tone in (37). In summary, the trisyllabic incorporated Noun construction has a fixed tonal melody L-H-L that ‘overrides’ the lexical tone of the verb. When there is no incorporated Noun, the lexical tone emerges.

### 6.2.3.1 The diachrony of the agentive nominalizer *-mù* ~ *-mú*

LaPolla & Huang (2003: 223) state that the Ronghong Qiang suffix *-m* comes from *mi* ‘person’. Many Tibeto-Burman languages have words for ‘man’ with an [m] initial (see LaPolla 1994). For example, Tibetan *mi* ‘man, person’, Thangkul Naga *mi* ‘man’, and Rgyalrong *tə-rmi* ‘person’, among others. The Yonghe form for person is *míe* ‘man, person’. Unlike other varieties, the relationship between the nominalizer *-mù* ~ *-mú* and the independent word for ‘person’ in Yonghe is not particularly transparent. Table 95 gives data

comparing the agentive nominalizing suffix and the independent form for ‘man, person’ in different varieties of Qiang.

	<i>Non-agent Nominalizer</i>	<i>‘Person’</i>
Yonghe	-mù ~ -mú	míe
Ronghong	-m	mi
Longxi	-mù	mù
Mianchi	-mù ~ -mú	mè
Taoping	-mə <sup>33</sup>	mə <sup>33</sup>

*Table 95.* The -mù ~ -mú nominalizing suffix and the forms for ‘person’ in Qiang

Note the differences in tone for the word for ‘person’ amongst the tonal dialects. Yonghe has a high tone against Longxi, Mianchi, and Taoping low tones. Though more work is needed to uncover the origins of this suffix, one possible etymology will be discussed in conjunction with the etymology of the -pù ~ -pú suffix in the next section.

#### 6.2.4 The nominalizing suffix -pù ~ -pú

The -pù ~ -pú nominalizing suffix is the least productive of Yonghe’s nominalizing suffixes. The core meaning appears to be ‘a type of person’. In Yonghe, this suffix is found in: (1) fossilized lexemes, (2) traditional titles, (3) certain registers of ritual language, where it has a more general usage, and (4) in local toponyms. The suffix has both high and low tonal variants. Like the other nominalizing suffixes discussed above, -pu is not subject to vowel harmony. However, as will be demonstrated, there are cases where the suffix undergoes rhotic harmony.



#### 6.2.4.1 Fossilized lexemes

We find the *-pù ~ -pú* suffix in a very small number of fossilized lexemes. A comprehensive list is given in Table 11.

<i>Form</i>	<i>Gloss</i>
ʔénèpù	‘kin’
jípù	‘wealthy person’
lǔpù	‘ghost’
képù	‘orphan child’

Table 96. Forms with fossilized *-pu* suffixes

In Yonghe, the historical stem *jí* ‘to be rich’ is unattested. It is however attested in other varieties, cf. Taoping [zǐ<sup>55</sup>] ‘to be rich’. The Yonghe verb-stem *nè* found in the form for ‘kin’, does occur independently and means ‘to be related’. This verb takes the inwards directional prefix *ʔé-*. The reason for the orientational prefix in this nominalized form is yet unclear, as nominalized forms are usually bare stems. It is possibly the same root as found in the Tibetan forms ཉེ *nye* ‘to be near’ and གཉེན *gnyen* ‘relative, friend’ (see Jacques 2019).

The Yonghe form for ‘ghost’ appears to have a well attested Tibeto-Burman etyma meaning something like ‘spirit’ as the root (see Matisoff 2003: 240). The form for ‘orphan child’ is probably cognate with Longxi *képù* ‘slave’ and Mianchi *képù* ‘ibid’.

#### 6.2.4.2. Traditional names and titles

Aside from fossilized lexemes, the *-pù ~ -pú* suffix is also found in some traditional names or titles, as illustrated in (38).

- (38) pæjæ    tɛ̀-ɓá¹    tɛ̀w    pæjæ-lỳ-pù    wú    tì  
 PN    son-big    just    PN-come-NMZ    COP    DISC  
 ‘Pæjæ’s oldest son was Pæjælypu’.

The etymology of the name of the son, *Pæjælypu*, might be analyzed as a patronymic: ‘son of *Pæjæ*’. Another example is from the traditional name from a folk narrative: *tʰitsʰɛ̀pù*. These cases are rare and thus far there are only two attested titles with the *-pù* ~ *-pú* element.

#### 6.2.4.3 Ritual language

The *-pù* ~ *-pú* suffix is also attested in ritual language texts. These are metered texts which are chanted with or without instrumental accompaniment. Consider examples (39a-39c). The ethnonyms used here are four-syllable terms specific to ritual language and have been omitted here at the request of the speaker. The four-syllable ethnonyms give structural parallel to the four-syllable appositional descriptors which follow.

- (39) a. XXXX            wλ¹-pʰí            ʂá-pù  
 Tibetans            yak-white            slaughter-NMZ  
 ‘The Tibetans, those who sacrifice white yaks.’
- b. XXXX            pæ-pʰí            ʂá-pù  
 Han                pig-white            slaughter-NMZ  
 ‘The Han, those who sacrifice white pigs.’
- c. XXXX            dzλ¹-pʰí            ʂá-pù  
 Qiang people      ram-white            slaughter-NMZ  
 ‘The Qiang, those who sacrifice white rams.’

As these examples contain human agentive nominalizations, it is interesting that we do not find the *-mù* suffix, but instead the *-pù* suffix. If ritual language is indeed more

conservative (see Chafe 1981), then this may suggest that *-pù ~ -pú* originally had a more widespread usage than in everyday speech.

#### *6.2.4.4 Toponyms*

In Yonghe we find the *-pù ~ -pú* suffix in local toponyms. A list of examples is given in Table 97.

<i>Form</i>	<i>Chinese</i>	<i>Pinyin</i>	<i>Gloss</i>
teí-pù	季格	<i>Jìgé</i>	‘Jige Village’
dzidzi-pù	利里	<i>Lìlǐ</i>	‘Lili Village’
náhl <sup>1</sup> -pù <sup>1</sup> ~ ná-pù <sup>1</sup>	腊普	<i>Là pǔ</i>	‘Lapu Village’
k <sup>h</sup> ǎ <sup>1</sup> -pù <sup>1</sup>	卡尔	<i>Kǎ’ěr</i>	‘Ka’er Village’
b <sup>l</sup> ’zi-pù	下都米	<i>Xià Dūmǐ</i>	‘Lower Dumi Village’
gýzý-pù	俄诺	<i>Énuò</i>	‘Enuo Village’
múpàè-pù	磨北	<i>Móběi</i>	‘Mobei Village’
dùmík <sup>l</sup> -pù	上都米	<i>Shàng Dūmǐ</i>	‘Upper Dumi Village’
dzíts <sup>h</sup> à-pù	日里擦	<i>Rìlǐcā</i>	‘Rilica Village’
kàzú-pù	甘木若	<i>Gānmùruò</i>	‘Ganmuruo Village’
kòkó-pù	勒湾	<i>Lēiwān</i>	‘Leiwan Village’
ɛik <sup>h</sup> à <sup>1</sup> -pù <sup>1</sup>	细口	<i>Xìkǒu</i>	‘Xikou Village’
dútɕù-pù	道财	<i>Dàocái</i>	‘Daocai Village’

Table 97. The *-pù* ~ *-pú* suffix in Yonghe Qiang toponyms

While this list is not exhaustive, it covers the major villages of Yonghe Valley. Note that in these toponyms, the vowel of the *-pù* ~ *-pú* suffix can be rhotacized if the preceding vowel is rhotic. We also find that the suffix can have a high tone, as in the form for ‘Lower Dumi Village’.

Looking only at the forms in Table 96, the semantic import of the *-pù* ~ *-pú* suffixes seems to be ‘village’. The explanation adopted here is that these forms used to mean ‘a

person from X-place’, but that they now mean simply ‘X-place’. Evidence for this hypothesis comes from the Ronghong variety. In the Ronghong variety of Qiang, spoken further northwest in Mao County, a *-p* suffix is used to mean ‘a type of person’. Consider the examples from Huang C. (2009: 229) given in Table 98.

<i>Form</i>	<i>Gloss</i>
ʁə¹-p	‘a Han person’
joχu-p	‘a person of Ronghong’
buju-p	‘a person of Muyu’
ʁoʁo-p	‘a person of Wowo’
ʂpəχsə-p	‘a person of Chibusu’

Table 98. The *-p* suffix in Ronghong Qiang pt. 1

Huang C. (2009: 229) notes that the suffix is semantically opaque, and it is possible to add the word ‘man’ after these constructions with the same meaning. Examples (from Huang C. 2009: 229-230) are given in Table 99.

<i>Form</i>	<i>Gloss</i>
joχu-p ~ joχu-p mi	‘a person of Ronghong’
buju-p ~ buju-p mi	‘a person of Muyu’
ʁoʁo-p ~ ʁoʁo-p mi	‘a person of Wowo’
ʂpəχsə-p ~ ʂpəχsə-p mi	‘a person of Chibusu’

Table 99. The *-p* suffix in Ronghong Qiang pt. 2

The characteristics of the *-pù* ~ *-pú* suffix in Yonghe fit well with the account of the *-p* suffix in Ronghong in that it may be an old suffix, the semantic import of which has faded. As a

result, that form which may have once meant ‘person from Ka’er Village’ is now the general term for Ka’er Village.

### 6.2.3.1 *The diachrony of the nominalizing suffix -pù ~ -pú*

The finding of this suffix in Yonghe is noteworthy for two reasons. First, this suffix had previously only been attested in Ronghong Qiang (Huang C. 2009: 229). Second, the fact that the vowel is better preserved in Yonghe, gives additional information which may elucidate the historical development of this morpheme.

Huang C. (2009) notes that the *-pV* suffix in Qiang is possibly related to the Tibetan nominalizing suffix *-pa*, as in བོད *bod* ‘Tibet’ vs. བོད་པ། *bod-pa* ‘Tibetan’. This comparison is intriguing, especially in light of the fact that the Tibetan *-pa* is in paradigmatic relationship with the *-ma* suffix (see DeLancey 2002), which might be reflected in the Yonghe *-mù ~ -mú* suffix. These Tibetan suffixes have been written about as reflecting an older gender marking system (see DeLancey 2002 and references therein). Consider the examples in Table 100.

<i>Suffix</i>	<i>Type</i>	<i>Sambhota</i>	<i>Wylie</i>	<i>Gloss</i>
-pa	masculine	བཙུན་པ	<i>btsun.pa</i>	‘monk’
-ma	feminine	བཙུན་མ	<i>btsun.ma</i>	‘nun’
-ma	non-gender	ལྷ་མ	<i>bla.ma</i>	‘lama’
-pa	non-gender	མྱུང་པ	<i>myang.pa</i>	‘neck’
-ba	masculine?	ལྷ་བ	<i>zla.ba</i>	‘moon’
-ma	feminine?	ཉི་མ	<i>nyi.ma</i>	‘sun’

Table 100. Gender marking nominalizing suffixes in Tibetan pt. 1

Table 100 shows that the suffixes, at times, clearly mark gender. Yet, sometimes they clearly have no gender meaning. This is the case for *lama*, which takes the ‘feminine’ -ma suffix instead of the masculine suffix, as one may expect, as only men can be *lamas* in Tibetan society. Lastly, there are some forms, such as ‘sun’ and ‘moon’, where it is unclear whether the original collocation had anything to do with gender in the first place. Note that Tibetan -*pa* has an alternate form -*ba* intervocalically. The Tibetan nominalizer -*pa* is also found in traditional descriptive names such as those given in example (40).

- (40) མི་ལ་རས་པ  
*mi.la.ras.pa*  
‘Milarepa’ (lit. person-cloth-wear-NMZ)~ ‘the cloth clad one’

Table 101 gives a comparison of the Tibetan and Qiang forms proposed by Huang C. (2009).

<i>Tibetan</i>	<i>Yonghe</i>
- <i>pa</i> ~ <i>ba</i>	- <i>pù</i> ~ - <i>pú</i>

- <i>ma</i>	- <i>mù</i> ~ - <i>mú</i>
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Table 101. Comparison of nominalizers in Tibetan and Qiang pt. 1

A potential obstacle to the comparison proposed by Huang C. (2009), is that Proto-Tibeto-Burman for open syllables with *\*a*, which are faithfully reflected in Tibetan (cf. Hill 2019a, the usual reflex in Yonghe is [i] and not [u]. A second problem with the comparison is that Qiang voiceless unaspirated stops usually correspond with voiceless aspirated stops in Tibetan. For example, Tibetan ཕག་ *phak* ‘pig’ and Yonghe *pǎ* ‘pig’, Tibetan ཕམ་ *pha* ‘father’ vs. Yonghe *pí* ‘father’.

Beyer (1992: 16-17) lists the Tibetan forms *po* and *mo* as alternates of *pa* and *ma* without explanation as to the variation. DeLancey (2002) treats *po*, *bo* and *mo* as alternates of *pa*, *ba*, and *ma* respectively and gives བླ་བོ་ *bra.bo* ‘buckwheat’ as an example of *bo*. Zeisler (2015) treats *po* and *mo* as separate, gender marking suffixes, and treats the *bo* in ‘buckwheat’ as part of a separate definite marking suffix. I believe that Zeisler’s analysis is correct as *po* and *mo* are clearly gender marking suffixes the other suffixes, while this is not so clearly the case for the other examples.

I propose that the Tibetan forms which Zeisler recognize as gender marking suffixes, *po* and *mo*, are potentially related to Yonghe Qiang *-pù* ~ *-pú* and *-mù* ~ *-mú*.

This comparison does not face the same difficulty of irregular vowel correspondence as Huang C.’s (2009) proposal. A closer look at the data reveals that the etymological forms in Tibetan are actually *pho* ‘masculine’ and *mo* ‘feminine’ rather than *po* and *mo*. The form *po* only occurs after closed syllables whereas *pho* occurs in all other contexts. Examples of Tibetan *pho* ~ *po* and *mo* are given in Table 102.



<i>Environment</i>	<i>Form</i>	<i>Sambhota</i>	<i>Wylie</i>	<i>Gloss</i>
#_	<i>pho</i>	ཕོ	<i>pho</i>	‘man’
--	<i>mo</i>	མོ	<i>mo</i>	‘woman’
#_	<i>pho</i>	ཕོ་མཚན	<i>pho.mtshan</i>	‘penis’
#_	<i>mo</i>	མོ་མཚན	<i>mo.mtshan</i>	‘vagina’
--	--	རྟ	<i>rta</i>	‘horse’
V_V	<i>pho</i>	རྟ་ཕོ	<i>rta.pho</i>	‘stallion’
--	--	རྟ་ག	<i>stag</i>	‘tiger’
--	<i>mo</i>	རྟ་ག་མོ	<i>stag.mo</i>	‘tigress’
#_	<i>pho</i>	ཕོ་གསར	<i>pho.gsar</i>	‘young man’
--	<i>mo</i>	མོ་གསར	<i>mo.gsar</i>	‘young woman’
V_V	<i>pho</i>	བྱ་ཕོ	<i>bya.pho</i>	‘rooster’
--	<i>mo</i>	བྱ་མོ	<i>bya.mo</i>	‘hen’
C_	<i>po</i>	རྒྱལ་ཕོ	<i>rgyal.po</i>	‘king’
--	<i>mo</i>	རྒྱལ་མོ	<i>rgyal.mo</i>	‘queen’
C_	<i>po</i>	ཁོལ་ཕོ	<i>khol.po</i>	‘servant boy’
--	<i>mo</i>	ཁོལ་མོ	<i>khol.mo</i>	‘servant girl’
C_	<i>po</i>	རྟ་ཕོ་ལོ	<i>rgad.po</i>	‘old man’
--	<i>mo</i>	རྟ་ཕོ་ལོ	<i>rgad.mo</i>	‘old woman’

Table 102. Nominalizing suffixes in Tibetan pt. 2

Further evidence that the spelling *pho* is etymological comes from Old Tibetan. For example, the spelling *rgyal.pho* ‘king’ is found in *Pelliot Tibetan* 1074 instead of the more common

*rgyal.po* ‘king’.<sup>60</sup> The *Lhasa Zhol* pillar inscription, possibly the oldest attested Tibetan writing, dates to circa 764 CE (Beckwith 1987), and has the form *btsan.pho* ‘strong man, leader’ instead of the more common *btsan.po* ‘ibid’.<sup>61</sup>

We find that the masculine is unmarked for certain animals, such as ལྷག *stag* ‘tiger’ vs. ལྷག་མོ *stag.mo* ‘tigress’, whereas the feminine is the default for others as in རྩ *rta* ‘horse’ vs. རྩ་མོ *rta.pho* ‘stallion’. There are not enough data to establish a pattern for correspondence between Tibetan <o> and Yonghe [u]. However, the onset correspondence makes the comparison of Tibetan *-pho* and *-mo* with Yonghe Qiang suffixes *-pù* ~ *-pú* and *-mù* ~ *-mú* much more compelling than a comparison with Tibetan *-pa* and *-ma*. Also note that [o] and [u] are barely distinct in Yonghe Qiang (see Chapter 2).

To sum up, the Yonghe *-pù* ~ *-pú* suffix is sparsely attested in the corpus. It is found in at least some fossilized constructions and traditional titles where it gives a meaning of non-agentive human. In ritual speech, which is generally considered to be more archaic (Chafe 1981), it has a broader use and functions to mark human agents. In ritual speech, this suffix can target Noun-Verb pairings when the Noun is the object of the Verb. Lastly, it occurs in toponyms where it lends the meaning of ‘village’, but probably originally meant ‘villager’, a meaning still seen in other dialects such as Ronghong. The etymology of this suffix is uncertain, but the comparisons with Tibetan are interesting. More work on a broader selection of Qiang varieties will be needed to further study the relationship.

Synchronically, *-sì* and *-mù* ~ *-mú* have more in common in that both are productive while *-pù* ~ *-pú* is not productive. This does not exclude the possibility that, historically, *-pù*

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<sup>60</sup> *Pelliot Tibetan 1074* is accessible at the following website: [https://otdo.aa-ken.jp/archives.cgi?p=Pt\\_1047](https://otdo.aa-ken.jp/archives.cgi?p=Pt_1047)

<sup>61</sup> See Hill (2010) on the issue of aspiration in the place of Old Tibetan synchronic phonology.

~ -pú may be more closely related to -mù ~ -mú. There may also some trace of a masculine marking meaning for the Yonghe form as it is found in the title *Pæjælypu* ‘son of *Pæjæ*’. Whatever the relationship to Tibetan *-pho* and *-mo*, the possibility that Yonghe *-pù* ~ *-pú* and *-mù* ~ *-mú* share a special etymological relationship with each other is potentially evidenced by the fact that they share a vowel, and both undergo tonal alternations.

### 6.2.5 The *-kλ* nominalizing construction

Finally, Yonghe also has a nominalizing suffix *-kλ*. The suffix occurs with Stative Verbs and lends an individuating meaning. The following example is from a fairytale about two brothers in danger of being eaten by a witch (41).

- (41) bǎ¹-kλ      hʌ¹-tλ      teǎw  
 big-NMZ    that-CLF    just  
 ‘then that big’un just ...’

This suffix does have any segmental or suprasegmental alternations. This form is not used with Chinese loanwords. The individuating suffix is possibly related to the velar initial nominalizers in other subgroups of the language family, such as Rgyalrong (see Wolfenden 1929, Konnerth 2016).

### 6.3 The causative suffix *-zλ*

Morphological causatives are transitivity increasing constructions. Transitivity is a complex notion which has been variously defined (see LaPolla 2008 for discussion). Typically, it has been defined as having to do with either the number of core arguments, or the degree of

affectedness of the arguments (see Hopper & Thompson 1980). LaPolla, Kratochvil & Coup (2011) take an RCG approach to transitivity, and argue that transitivity, like many other aspects of grammar, should be seen as a constructional phenomenon and evaluated on a construction-by-construction basis. In Yonghe Qiang, there is a causative suffix *-zλ*. This suffix is a valency increasing suffix which can add an argument to the predicate. An example of the causative suffix with an intransitive verb is given in (42).

- (42) ká ʔú=j ʔè-εé-zλ-wà  
 1S 2=PAT ORT:in-die-CAUS-PROS:1  
 ‘I’m going to kill you’ (he said to the horse)

Contrast (42) with (43), in which the second person patient is unmarked.

- (43) ʔú ʔè-εé-ji-nì  
 2S ORT:in-die-CSM-2S  
 ‘You have died’ (he said to his mother’s spirit)

We see that the causative is formally marked. However, notice that in (42) the agent-like argument is not marked with the *-sì* construction, which can sometimes mark agentivity. This is because the use of the agentive marker in Qiang is determined by pragmatic factors rather than strictly syntactic parameters (LaPolla & Huang 2003: 79-80; Huang C. 2010). Because the roles of the participants in example in (42) are unambiguous, and there is nothing surprising about the event, there is no need to mark the first-person pronoun with *-sì*. Such a use is possible, but would imply a contrastive emphasis: *I’M* going to kill you (as opposed to someone else). The use of *-sì* is more common when the agent-like argument is less

prototypical (i.e. a force of nature as opposed to a human actor). An example illustrating this is given in (44).

- (44) gǔsì            tsí-pì=j            mùwú=sì            tè-jíkyè-zà-j  
 clothing    this-CLF=PAT        wind=AGT        ORT:up-dry-cause-EVID  
 ‘these clothes have been made dry from/by the wind’.

Thus, we find that the agent-like argument can either be marked with *-sì*, or unmarked, depending on the pragmatics and prototypicality of the event.<sup>62</sup> It is worth noting that the causative suffix can also occur when there is no explicit agent-like argument. Consider, for example (45), which is from a fable in which a boy becomes a dragon.

- (45) a. tšùwú    tɛǎw    tɛ<sup>hí</sup>            tè-lý-wù-j  
           3ps        just    anger < Ch.    ORT:up-come-APPL-EVID  
           ‘he got mad (at his mother)’
- b. tɛ<sup>hí</sup>        tè-lý-wù-næ  
           anger    ORT:up-come-APPL-LNK  
           ‘got mad (at his mother) and,’
- c. ?ó  
           DISC  
           ‘well,’
- d. tšátsì    tɛǎw    tɛ<sup>hí</sup>-bá<sup>t</sup>-jì-zà-j  
           then    just    ORT:up-big-CSM-CAUS-EVID  
           ‘then (it) caused him to become big’

There is no agent-like argument other than ‘his getting angry’, which is implicit rather than explicit. In summary, we find the causative suffix *-zà* is used to increase verbal valency

<sup>62</sup> ‘Dog bites man’ scenarios are common whereas ‘man bites dog’ scenarios are uncommon. The form for ‘man’ is more likely to be marked with the *-sì* construction in the latter.

with or without the co-occurrence of the pragmatically driven case marking on the Noun arguments. On the whole, the causative is a marginal construction within the corpus, and we find only seven instances in the entire corpus. We do not find any instances of the *-zà* suffix being used with transitives to create ditransitives. The issue of whether or not this is possible, along with other deeper issues of transitivity in Qiang, will have to await further research.

The diachronic origins of this suffix are unclear, though there are cognates of this suffix in all other documented varieties of Qiang, and it can be reconstructed to the proto-language (see Evans 2004). Beyond Qiang, one possible connection is with the Tibetan verb བོད་ *bzo* ‘to make, build’. The development from an independent verb meaning ‘make’ into a causative affix is a well attested grammaticalization pathway (see Kuteva 2004: 117-118), but more evidence would be required to substantiate such a comparison.

#### 6.4 Associated Motion suffixes

Associated Motion (AM) is defined as a category that adds a component of translational motion to an otherwise non-motion verb (cf. Koch 1984). Expression of associated motion is fairly widespread in Tibeto-Burman languages (Jacques 2013; Genetti et al. 2020).

In Yonghe Qiang, the associated motion paradigm is simple. There are two associated motion suffixes: one indicating motion towards and one indicating motion away. Yonghe, like other Tibeto-Burman languages (Jacques 2013; Genetti et al. 2020) has verbal affixes which mark AM. There are two Associated Motion suffixes in Yonghe Qiang: *-ki~ -ki* ‘go’ and *-lỹ ~ -lỹ* ‘come’. Examples from connected speech are given in (46-47).

(46) hǐ            ʔé-t<sup>h</sup>è-lỹ

wine           ORT:in-drink-come  
 ‘come (to/and) drink wine!’

- (47) ʔú           ʔé-t<sup>h</sup>è-kì  
 2S           ORT:in-drink-go  
 ‘you go (to/and) drink!’

These suffixes clearly originate from the independent verbs: *kí* ‘to go:IMPF’ and *ly* ‘to come’. However, they are no longer independent verbs because (1) they cannot be independently negated and (2) their tone is sensitive to the tone class of the Verb stem. Example (48) shows that the Associated Motion suffix is not independently negated.

- (48) ʔú mətʂá mé-t<sup>h</sup>è-ly-nì  
 2S food NEG-eat/drink-come-2  
 ‘You haven’t been coming to eat food.’

Examples (49-50) show that the tone of the suffix is sensitive to the lexical tonal class of the verb.

- (49) mətʂá           t<sup>h</sup>é-kì-j  
 cooked.rice       eat/drink-AM:go-EVID  
 ‘they would go eat cooked rice.’

- (50) dzi-kí-j  
 eat-AM:go-EVID  
 ‘he went to eat.’

The verb ‘to go’ in Qiang is one of a very small number of verbs with a stem alternation. In Yonghe there is a stem alternation between the imperfective *kí* ‘go’ and the imperfective

*ká'* 'go:PFV'. Table 103 gives data showing the difference in frequency of the verbs and the suffixes.

	<i>Independent Stem</i>	<i>Bound Suffix</i>	<i>Total</i>
<i>lỹ</i> 'come'	142	19	161
<i>ki</i> 'go:IMPF'	61	226	287
<i>ká'</i> 'go:PFV'	47	--	47

Table 103. Comparison of frequency of the AM suffixes and verb stems.

Table 103 shows that the independent verb *ki* 'go' is more common than the verb *lỹ* 'come'. This pattern obtains for the grammaticalized suffixes as well, where *-ki* ~ *-kì* AM:go is much more frequent than *-lỹ* ~ *-lỳ* AM:come. Example (51) shows the prevalence of *-ki* ~ *-kì* suffix as part of a clause-chain within a traditional narrative.

- (51) a. *hæ<sup>h</sup>kλ fiè-ký-næ*  
 grass ORT:down-cut-LNK  
 'and having cut grass,'
- b. *tλ-xwá-kì-næ*  
 ORT:up-sell-AM:go-LNK  
 'and having gone to sell it,'
- c. *k<sup>h</sup>λ<sup>1</sup> pú-kì-j*  
 rice buy-AM:go-EVID  
 '(they would) go and buy rice.'
- d. *k<sup>h</sup>λ<sup>1</sup> ?à-tʂwá dzi-pú-kì-næ*  
 rice one-CLF ORT:towards-buy-AM:go-LNK  
 'and having gone to buy a handful of rice'
- e. *kjènt<sup>h</sup>á ?è-kyé-næ*  
 home:LOC ORT:in-bring-LNK  
 'and having brought it home,'





The AM:come suffix *-lỳ ~ -lỳ́* does not undergo any tonal or segmental alternations. However, the form of the AM:go suffix *-kí ~ -kì* can be reduced to *-k* before the *-wu* applicative. These are phonetically [kwu ~ ku] and are glossed as AM:go:APPL. An example is given in (54).

- (54) zízìkà¹      fìl¹-kì¹-kù-j  
 hell            ORT:down-go.PFV-AM:go:APPL-EVID  
 ‘(he) went to go down to hell for him.’

This example is interesting in that in verb complex there are five ‘morphemes’, in this case ORT:down, go (stem II), AM:go, APPL, and EVID, all expressed in three syllables, with the final syllable loaded with three morphemes. It illustrates that Yonghe Qiang, while largely agglutinative, does have some elements of fusion. Also notice the rhotic harmony between the stem and the prefix, another element of fusion.

#### 6.4.1 Direction and associated motion

The relationship between the direction and associated motion in Tibeto-Burman languages is complex (Genetti et al. 2020). Some languages have either direction or AM, and some have both, whether through ambiguity and overlap or through separate sub-systems within the grammar (Genetti et al 2020). Yonghe has both direction or orientational marking, and also AM suffixes. This section will explore the relationship between direction and AM. The relationship between ORT prefixes and AM suffixes is as follows. It is possible for a verb to have the following combinatorial possibilities:

- a. Neither an ORT prefix nor an AM suffix
- b. An ORT prefix and no AM suffix

- c. No ORT prefix and an AM suffix
- d. Both an ORT prefix and an AM suffix

An example of each type is discussed below. A Type (a) example is given in (55).

- (55) mətʂá      ʔà-twá      tʰé  
 food          one-CLF      eat  
 ‘(Qiang people) have a meal (together).’

This example comes from a procedural text about celebrating the lunar new year. No orientational prefix is required as the action is imperfective, habitual action. There are no AM suffixes as Qiang people do not go anywhere to celebrate new year’s dinner but instead have the meal at home. The next line of the text, an example of (b), is given in (56).

- (56) mətʂá      sí-tʰè-næ                      teǎw  
 food          ORT:downriver-eat-LNK      just  
 ‘having had the meal together (Qiang people) just...’

This example has an ORT prefix showing that the action is perfective. Again, there is no AM suffix as there is no trans-locational motion. An example of type (c) is given in (57).

- (57) tsù-mí      jǐ-kjé                      tʰé-kì-j  
 son-mother two-CLF      eat-AM:go-EVID  
 ‘the mother and son would go to eat (the rice that they bought).’

In this example, the action is habitual and there is no ORT prefix. The mother and son go home to eat and so the AM:go suffix is used.

The AM suffixes can be used with verbs with no inherent translational motion, such as to eat, and can also be used for verbs that do have an inherent motional semantics. Example (76) is from a procedural text about herding goats. The action is imperfective and habitual. Therefore, there is no ORT marking. The AM suffix adds a dimension of motion away from the home and so the AM:go suffix *-kì* ~ *-kí* is used here as opposed to the AM:come suffix *-lỳ* ~ *-lỳ́*. An example is given in (58).

- (58)    ʔá-kλ            láwzλn-le            tý-kì-j  
           one-CL        old.people-PL        herd-AM:go-EVID  
           ‘one group (who) go to herd (goats) (are the) elderly’

The most interesting examples are type (d), an example of which is given in (59). In (59), the character in the story leaves his hometown to buy a horse.

- (59)    jý                ʔá-tλ                dzi-pú-kì-j  
           horse            one-CLF            ORT:towards-buy-AM:go-EVID  
           ‘He went to buy a horse.’

The event is perfective and so the ORT prefix is used. The AM suffix adds a dimension of motion to this Verb. Note that the two directions indicated here are oppositional. When there is both an orientational prefix and an AM suffix, the orientational prefixes may contribute directional meaning for the verb stem, but do not contribute directional meanings that extend to motion indicated by the AM suffix. Also consider the example in (60).

- (60) pǎ-dzǝpá                      fiè-mè-tæ-dzǝ-kì-j  
 pig-foot                              ORT:down-NEG-CONT-bring-AM:go-EVID  
 ‘(she) had not yet gone (upstairs) to bring down the pig foot.’

In this example the verb *dzǝ* ‘to bring’ takes a downwards directional prefix. In traditional Qiang households, pig feet and other cured meats are stored by hanging from the rafters on the third floor of a three-story house (LaPolla & Huang 2003: 9). In this part of the narrative, the character is in the main guest room (second floor), and would have to go upstairs to retrieve the pig foot. Thus, the AM suffix adds a motional semantics of going, since the speaker left the room to retrieve the foot, but this motion is not covered under the scope of the orientation prefix.

There are some borderline cases where the direction indicated by the ORT prefix and the direction of the AM suffix are coincidentally similar. For example, consider (61), which is from a traditional story. In (61c), the ‘downward’ orientational prefix could reasonably be said to apply to both the verb ‘to gather’ and also ‘to go’, as the shaman went down into hell and bent down to scoop up the bones of the son of *Paeyae*, the resurrection deity in this story.

- (61) a. mǎ'zì                      wù-tʂʰà-pí                      bíŋbíŋbónbón fiè-lý-j  
 Qiang                      five-point-shaman                      ideophone                      ORT:down-come-EVID  
 ‘the Qiang shaman came down (to hell) beating his drum’
- b. fiè-lý-næ  
 ORT:down-come-LNK  
 having come down,
- c. ʔʌ'kjé      páwpáw                      fiè-kýe-kì-j  
 bone      bag                      ORT:down-gather-AM:go-EVID  
 ‘he went and gathered the bag of bones’

In summary, Yonghe has two Associated Motion suffixes, AM:go *-kì ~ -kí* and AM:come *-lỳ ~ -lý*, which derive straightforwardly from motion verbs. They indicate an element of translational motion to the verbs to which they attach. The AM:go suffix *-kì* is much more frequently occurring than the AM:come suffix *-lỳ ~ -lý*. The motion indicated by the AM suffixes is outside the scope of orientational prefixes.

### 6.5 The applicative suffix *-wú ~ -wù*

In Yonghe, there is a valency increasing applicative suffix *-wú ~ -wù*. This section will introduce the basic function of the applicative construction. It will also take a step back and look at the morpheme's cognates as found in other varieties of Qiang. Connecting the dots between the use in Yonghe and the use of cognate forms in other varieties gives a better picture of its diachrony.

The applicative suffix is a valency increasing suffix. It is similar to the causative suffix in that it adds an argument. Examples of this can be seen in (62-63) are from Bai Jianqiong.

- (62) dò-p<sup>h</sup>ú-j  
 ORT:away-flee-EVID  
 's/he ran away'
- (63) dò-p<sup>h</sup>ú-wù-j  
 ORT:away-flee-APPL-EVID  
 's/he ran away from (him/her/them)'

Examples from connected speech are given in (64-66).

- (64) kjét<sup>h</sup>à-hà    míe    ?è-éé-wù-j

house-LOC person ORT:in-die-APPL-EVID  
'(They) had someone at home die on them.'

(65) tʂùwú    tɛ̃w    tɛ̃hí    tɛ̃-lý-wù-j  
3S        just        anger ORT:up-come-APPL-EVID  
'He got mad (at her)'

(66) ká ʎú=j    mò-pùjǎ    jí-wù-j  
1S 2S-PAT NEG-raise:1    say-APPL-EVID  
'I'm not taking care of you anymore' (he said to'em)

In each case we see that an intransitive verb is made into a transitive verb with the use of the applicative. Transitive verbs can also take the applicative. An example of this type is given in (67).

(67) wàwá        hǎ-tǎ        dè-xý-wú-j  
child        that-CLF        ORT:away-steal-APPL-EVID  
'(that) child stole (it) from (him).'

In languages with multiple applicatives, there is often a distinction made between benefactive and malefactive applicatives (Peterson 2007: 11-15). There is only one applicative suffix in Yonghe Qiang which is used for both benefactive and malefactive cases. A malefactive case is seen in (64). A benefactive usage is seen in (71) below. As will be discussed below, this suffix has its origins as an independent verb meaning 'give'. The applicative suffix cannot be analyzed as an independent complement-taking predicate as it cannot be independently negated. If the applicative were a complement taking a verb like 'say' or 'want', we would expect it to be independently negated. An example showing that the applicative falls under the scope of the negative prefix is given in (68).

- (68) a. tsé=j      zì-téí      fà¹-mà¹-tşí-wù-næ  
 1PL=PAT demon-house NEG-build-APPL-LNK  
 ‘Not building a demon house for us,
- b. sì-téí      fà¹-tşí-wù-nì  
 god-house ORT:down-build-APPL-2S  
 ‘you built us a temple!’

Additionally, the tone of the applicative suffix is sensitive to its position within the string of syllables in the verb and also to the tone class of the verb stem. Consider examples (87-88), both of which are offered by Bai Jianqiong.

- (69) tà-dzi-wú-j  
 ORT:up-eat-EVID  
 ‘he ate it up (for him/her/them)’
- (70) sí-t<sup>h</sup>è-wù-j  
 ORT:downstream-drink-APPL-EVID  
 ‘she drank it down (for him/her/them)’

The verbs ‘eat’ and ‘drink’ belong to different tonal classes and the tone of the applicative suffix is sensitive to this difference. The translation here ‘for them’ is not really accurate as it implies someone did something in someone else’s place. Thus, the usage of the applicative in these cases simply means that the action of eating or drinking affected a third party in some way.

In Yonghe Qiang, the applicative construction and the person marking are separate. For example, in comment-topic constructions, the applicative is maintained in non-finite comment clauses, whereas the person marking is not maintained in the non-finite topicalized



clauses. This patterning differs from the person marking, which only occurs on finite verbs. This is illustrated in (71), which comes from a traditional narrative about a husband and wife.

- (71) a. b̀lé h́-̀t̀ ṭə́ẉ j̣áẉáʰ h́-̀t̀=j k̀páṭʂi-h́ ṭeì-sì-wú-j  
 wife that-CLF just husband that-CLF=PAT head-LOC louse-look-APPL-  
 EVID  
 ‘That wife picked lice on her husband’s head for him.’
- b. ṭeì-sì-wú-n̄ə  
 louse-look-APPL-LNK  
 ‘having picked lice for him’

The applicative suffix is of significant diachronic interest in the history of the Qiang language as well as the family more broadly (cf. van Driem 1993). It has been argued that *-wu* type suffixes found in Qiang are cognate with the *-wu* direct or transitive marker in Rgyalrongic (DeLancey 1981). Jacques (2014) has drawn a connection between the *-wu* suffix in Qiang and the heterophoric infix *-w-* in Pumi. It has been argued that certain vowel alternations in Tangut (< Western Rgyalrongic cf. Lai et al. 2020) verb stems may be explained as due to fusion of the verb stem with a *\*-wu* suffix (Jacques 2009). Jacques (2014) has also argued that certain irregularities in Tibetan verbs can be explained with reference to a *\*-wu* suffix. Before assessing these broader connections, we will first look at cognates across different Qiang dialects.

The Yonge applicative suffix is cognate with Ronghong Qiang *-wə*, which LaPolla & Huang analyze as a 3<sup>rd</sup> person non-actor agreement suffix. I argue elsewhere (Sims *forthcoming*) that the Ronghong suffix *-wə* is better analyzed as a direct marker within the 1, 2 > 3 hierarchical system. Ultimately, both suffixes are cognate with an applicative suffix *-bù* in the Longxi variety. Evidence for the relationship between these three morphemes is given in Table 104.

<i>Yonghe</i>	<i>Longxi</i>	<i>Ronghong</i>	<i>Gloss</i>
tsú	tsù	tsə	‘water’
zú	zù	zə	‘land’
mú	mú	mə	‘fire’
pù	pù	pə	‘to do’
p <sup>h</sup> ú ~ p <sup>h</sup> ù	p <sup>h</sup> ú ~ p <sup>h</sup> ù	p <sup>h</sup> ə ~ f	‘tree’
bù zú	bù-iù	bə	‘bee’
-wù ~ wú	-bù	-wə ~ -w	APPL /DIR
tà wá	tà bá	ta wa	‘hat’

Table 104. Evidence for the cognancy of the Yonghe applicative with other dialects

Note that Yonghe and Longxu [u] correspond to schwa in Ronghong. It seems likely that the Longxi form [bu] is the most phonetically conservative. The Longxi form *-bu-* does not seem to fit with the idea that *-wu* in other dialects is a *direct* reflex of the 3rd person object *-u* suffix proposed for Proto-Tibeto-Burman (van Driem 1993; *inter alia*). The hypothesis of fortition from *\*w* to *b* is not entirely impossible, but would require strong evidence as this type of sound change is less common.

It appears that *\*b* corresponds to [b] in all three varieties in initial position, but *\*b* is only maintained as [b] by Longxi in intervocalic position. In Yonghe and Ronghong, *\*b* has lenited to [w] in the intervocalic position. See LaPolla & Huang (2003: 23) for evidence of the change *\*b* > [w] in Ronghong. Evidence for this correspondence is also furnished by the form for ‘hat’.

The connection between the Ronghong direct marker *-wə* and the applicative in Yonghe and Longxi is verbal valency. The Yonghe variety does not have a direct-inverse system but

does use the applicative to increase valency. Direct markers are also valency increasing operations (see Jacques 2014 on direct-inverse systems in Tibeto-Burman). The valency increasing function of Ronghong  $-wə \sim -w$  is narrower and only for scenarios when 1, 2, are acting on 3.

Applicatives often grammaticalize from lexical verbs such as ‘give’ (see Peterson 2007). In other Tibeto-Burman languages we find verbs for ‘give’ with the same shape as the hypothetical  $*bV$  source of the applicative for Qiang. Examples include Chinese 𠬞  $bì <$  Middle Chinese  $pjiH <$  Old Chinese  $*pi[t]s$  ‘give’; Tibetan *sbyin* ‘to give’, Japhug Rgyalrong *mbi* ‘to give’, Dolakha Newar *bir* ‘to give’, Kathmandu Newar *biy-/bil-* ‘to give’.<sup>63</sup> In the Zbu dialect of Rgyalrong, the form for ‘to give’ has three stems: stem I  ${}^nbə$ , Stem II  ${}^nbə̂$ , and Stem III  ${}^nbó$  (see Gong 2018). The hypothetical proto-Qiang form  $*bu$  APPL/DIR is probably the direct cognate of the (irregular) Stem III  ${}^nbó$  of the verb  ${}^nbə$  ‘give’ in Zbu Rgyalrong. The grammaticalization of ‘give’ most likely took place through a bipartite stage (see Jacques 2019), in which both verbs were conjugated, explaining how ‘give’ could preserve its inflection before becoming fossilized to  $-bu-$  from something like  $< *bi-wu$  ‘give-3P’. This is assuming that there was indeed a Proto-Tibeto-Burman 3P marking suffix  $-wu$  (see discussion of person marking below).

To sum up, the applicative  $-wú \sim wù$  in Yonghe is a verbal valency increasing suffix which adds malefactive or benefactive arguments. Yonghe does not have direct-inverse marking. However, the Yonghe suffix is cognate with the direct marking suffix  $-wə \sim -w$  found in varieties with direct-inverse systems such as Ronghong (see Sims *forthcoming*). The Yonghe usage of the form may be seen as more general since it adds all types of arguments,

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<sup>63</sup> The initial for this Tibetan form is irregular (see discussion in Hill 2019b). Thanks to Carol Genetti for drawing my attention to the Newar forms.

and the usage of Ronghong  $-wə \sim -w$  is more specific in that they only add non-SAP arguments within a direct-inverse system.

### 6.5 Prospective aspect marking suffix $-wà \sim -wá$

There is an aspect marking suffix  $-wà \sim -wá$ , which marks prospective aspect. It is similar to prospective aspect marker described for the Ronghong variety (LaPolla & Huang 2003). The semantics of this marker are very similar to that of English *going to*. An example is given in (72).

- (72) ʔæk<sup>h</sup>æk<sup>h</sup>é ɛítè-wà-j  
 slowly drag-PROS-EVID  
 ‘(the ox) will slowly drag (the plow)’.

Prospective aspect marking comes after the Associated Motion suffixes. When the suffix [-wa] occurs after the AM:go suffix  $-kì \sim -kí$ , the result is a fused form [kwa] AM:go:PROS. This fusion is illustrated in (73).

- (73) ká tɛ̀ hé-kì zú-li-kwà-j  
 1S son that-CLF field-plow-AM:go:PROS-EVID  
 ‘that son of mine will go to plow fields’

Again, although Yonghe is largely agglutinative, we see polysynthetic characteristics such as noun-incorporation and fusion.

## 6.6 Inchoative aspect marking suffix *-ji*

There is an inchoative aspect marking suffix *-ji*. This suffix has been called a ‘change of state’ marker in other varieties (LaPolla & Huang 2003: 76; Evans 2004). An example is given in (74). In this example the character eats a magic pearl and becomes thirsty as a result. In (75), the narrator was disturbed a ghost, but then stopped being disturbed by the ghost, hence the ‘change of state’ marker.

- (74) tɿ-dzi-ki-næ                      tsú      tɿ-φæ-jì-j  
ORT:up-eat-AM:go                      water    ORT:up-thirst-CSM-EVID  
‘after going and eating (the magic pearl) he became thirsty for water.’
- (75) lǔpù                      hɿ-tɿ                      tɿ-tsú                      mà-ká-jì-éí  
ghost                      that-CLF                      ORT:up-meet                      NEG-able-CSM-NVOL  
‘I’ve stopped encountering that ghost.’

This inchoative aspect marker is different from the ones found in varieties spoken in northwestern Mao County and Heishui County which have an inchoative marker [pi], which is a grammaticalization from the independent verb [pi] ‘to become’ (see Evans 2004). The diachronic origins of the *-ji* inchoative aspect marking suffix in Yonghe are unclear.

## 6.7 Exception marking construction *-tì*

Similar to other varieties of Qiang, Yonghe has a construction which relays the semantics of ‘except’ or ‘just’. I follow LaPolla & Huang in glossing this as EXC for ‘exception’. See LaPolla & Huang (2003: 104) for a discussion of this suffix in Ronghong Qiang. This construction is interesting in that it can take Yonghe Verbs as well as Yonghe Nouns as the first part of the construction. The tone of the suffix is invariant.

Similar to Ronghong, this suffix is mostly used as part of a larger construction with the following structure: VERB<sub>1</sub>-*ti* NEG-VERB<sub>2</sub>. The second verb is most often the negated complement taking verb *tɛ<sup>h</sup>i* ‘need/want’. The semantics are somewhat opaque. It should be noted that *mè-tɛ<sup>h</sup>i* NEG-want is used to mean ‘not a problem!’, ‘no worries!’. An example of this construction from a procedural text is given in (76). The speaker is talking about harvesting hemp and different uses of the seeds.

- (76) a. *fiätλ*                      *jælækjè*                      *ʔáw*  
           very                      good                      DISC  
           ‘(the hemp seeds) are very good!’
- b. *hál-tà*                      *kùmó* *tʂá-ti*                      *mè-tɛ<sup>h</sup>i*  
           that-CLF                      oil                      press-EXC                      NEG-want  
           ‘those, (one can) just press for oil no problem!’

The *-ti* can occur after Yonghe Nouns in a construction with a Type II construction in the first slot which might be represented as: X-*ti* NEG-X. An example is given in (77). In this instance we might say that the *-ti* construction is enclitic to the nominal construction.

- (77) a. *tsé*                      *tɛéfù-næ*                      *ji-kjé*  
           1PL                      older.sister's.husband-LNK                      two-CLF  
           ‘We, my brother-in-law, the two of us.’
- b. *pùtɛ<sup>h</sup>jáé*  
           rifle  
           ‘a rifle...’
- c. *tɛ<sup>h</sup>i-ljλw-à<sup>1</sup>*                      *pùtɛ<sup>h</sup>jan*                      *ʔá-tà*                      *báé*  
           seven-six-two                      rifle                      one-CLF                      carry:1  
           ‘we were carrying a 7.62-millimeter caliber rifle,’
- d. *tsítàn*                      *lján-kò=tì*                      *mè-lé*  
           bullet                      two-CLF=EXCP                      NEG-exist

(it) didn't have but two bullets inside (it).

### 6.8. Adhortative marking construction *-sà ~ sá*

The adhortative marking suffix *-sà ~ -sá* is a call to joint action. This suffix may have a high or low tone depending on the tone class of the verb stem. See examples (79-80).

(79) kì-sá  
go-HORT  
'let's go!'

(80) t<sup>h</sup>é-sà  
drink-HORT  
'let's drink!'

Note that the verb in the adhortative mood may or may not take orientational markers. The adhortative is different from the imperative in that it does not change the orientational prefix to the inwards prefix. Examples (81-82) show the use of the adhortative with and without an orientational prefix. In this case, the imperative would be *ʔé-t<sup>h</sup>è* ORT:in-drink 'drink!'.  
'drink!'.

(81) sí-t<sup>h</sup>è-sà  
drink-HORT  
'let's drink it down!'

(82) t<sup>h</sup>é-sà  
drink-HORT  
'let's drink!'

The speaker uttering (81) expects the listener to finish what is in their cup, whereas there is no expectation of this in (82).

The adhortative occurs after the Associated Motion suffixes. An example is given in (83) from the lyrics of a folk song.

- (83) zǎm̀l            fà-tshwá-kì-sá            já  
song            ORT:down-sing-AM:go-HORT            EXCL  
'Let us go sing songs!'

A similar adhortative suffix is also found in other varieties of Qiang, such as Ronghong, but is not necessarily reconstructable to proto-Qiang (see Evans 2004 for discussion).

## 6.9 Person marking and evidentiality

Person marking (also called person indexation) is a topic of significant interest and debate in Tibeto-Burman historical linguistics (Wolfenden 1929; Bauman 1974, 1975; Watters 1975; Coblin 1976; DeLancey 1980, 1981, 1989; Genetti 1988a-b, 1994; LaPolla 1992, 1994, 2011, 2013; Van Driem 1993, 1999; Jacques 2012c; Zeisler 2015; Konnerth & Delancey 2019).

Before the work of Stuart Wolfenden (1929), it was thought that the Tibeto-Burman languages with person indexation had developed their indexation systems as a result of influence from non-TB languages, such as Munda (see discussion in Van Driem 1993). Wolfenden (1929)'s seminal work put to rest doubts that the indexation was a result of contact with non-TB languages. However there still remains significant debate as to whether the languages which have person indexation represent later developments or shared retentions.



The following discussion necessarily simplifies and condenses some of the issues relating to this topic, as these, have been debated at length for decades. It attempts to give an accessible introduction to the history of a complex debate, not an exhaustive account of everything that has been said about TB person indexation. Towards this end it introduces the ‘maximalist’ and ‘minimalist’ positions, and then explores the Yonghe Qiang person marking system to consider and see how the facts of the Yonghe system fit into the larger debate.

It is somewhat unfortunate that, the latest rounds of the debate (LaPolla 2016b; van Driem 2018) do not introduce any new empirical evidence for consideration. The goal here is to lay out the facts, and to be respectful of the different authors, all of whom are major figures within the field and whose contributions are valuable.

Before discussing the potentially cognate person indexation systems, it is worth mentioning that it is certain that some TB languages, such as Mikir (Hills Karbi), Angami Naga, and the Delugong variety of Sgaw Karen, have grammaticalized systems of person indexation that are obviously independent grammaticalizations with no bearing on the issue of reconstruction of person indexation for PTB (LaPolla 1994). Yet the fact that some languages have grammaticalized clearly unrelated person marking systems does not preclude the possibility that other languages with indexation systems constitute a shared retention. These secondary systems are something of a red herring. We will not deal here with these straightforward cases of secondary, subgroup internal developments, but only with the systems that are *potentially* cognate.

### **6.9.1 The maximalist position**

The ‘maximalist’ position has been argued for by James Bauman, George van Driem, Scott DeLancey, and Guillaume Jacques. The view of this camp is that Proto-Tibeto Burman had a complex system of biactantial person marking inflection through both prefixes and suffixes. van Driem (1993)’s reconstruction of the person marking paradigm is given in Figure 74. This paradigm has been modified in subsequent work (cf. DeLancey 2014a), but it is a useful starting point as it illustrates the complexity of the system being argued for. See, DeLancey (2014a) on the *\*tV-* second person prefix. In this Figure, A = agent, d = dual, p = plural, P = patient, PT = preterit, REF = reflexive, s = singular, → indicates direction of transitive relationship; 1, 2, 3 = 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> person.

kε-					-a ~ -ŋ ~ -ŋa				-ni
2					1s				2p
							-u		
							3P		
a-	me-	VERB	-nši	-tε	-na	si		-si	-i
1	pA	STEM	REF	PT	2	dA		dP	12p
							-a		
							3		
ta-/na-					-nya				-k
marked					1s→2				1p
scenario									

Figure 74. The Proto-Tibeto-Burman agreement system according to van Driem (1993)

We see that there is distinct marking for person as well as number in many categories, and that the system is hierarchical in nature. See Delancey (2014a) for a more recent defense of this position.

### 6.9.2 The minimalist position

The ‘minimalist’ position has been defended extensively by Randy J. LaPolla. LaPolla’s position is that *none* of the inflectional morphemes posited in Figure 1. should be

reconstructed for Proto-Tibeto-Burman. LaPolla argues that these represent transparent grammaticalizations from free standing pronouns, and that we should peel back the layers of grammaticalization in order to uncover the state of the proto-language. The following section discusses some points of disagreement from the perspective of both camps.

### **6.9.3 Statistical representation**

LaPolla (1992, 2010, 2013) has repeatedly argued that languages with indexation systems are in the minority within the family, and that a statistical majority would be required to warrant reconstruction in the proto-language. However, we do not necessarily need to find evidence for each affixal inflection point in every sub-branch, or even in a majority of subgroups to posit affixal indexation as a feature of the proto-language. Thus, LaPolla (1992, 2010; *inter alia*)’s objections that since a minority of TB languages share remnants of the indexation system argued for in Figure 1, the proposal is therefore unsupportable are unconvincing and largely irrelevant. See DeLancey (2014b: 140) for a discussion of this point.

### **6.9.4 Attestation in the major written languages**

LaPolla argues that the earliest attestation of this system is not found in Chinese (1200 BC) or in Written Tibetan (7<sup>th</sup> century) but only in the Tangut language (11<sup>th</sup> century). LaPolla states that the Tangut system demonstrates etymologically transparent development from free-standing pronouns, and that the system is ‘optional’. There is no evidence of the person marking system in Old Burmese (12<sup>th</sup> century), Classical Newar (14<sup>th</sup> century) or in Classical Nosu (15<sup>th</sup> century). In some branches, we even find person marking in some varieties but not others. For example, the variety of Newar spoken in Kathmandu has no person marking,

whereas varieties outside of Katmandu do have person indexation (see Shakya 1992; Shrestha 2003; Genetti 2007: 170-172).

Jacques objects to LaPolla’s characterization of the written languages and argues that the unique nature of the Chinese writing system potentially obscures morphological complexity. Furthermore, Jacques (2012b) sees evidence of traces of a person marking system in certain irregularities in Written Tibetan, and has written extensively on how Tangut contributes to this debate (Jacques 2014, 2016). Jacques (2016) addresses the issue of Tangut empirically, using a corpus study of Tangut texts. His findings challenge LaPolla’s (1992) characterization of the Tangut system as ‘optional’. For arguments surrounding Tangut, see (Jacques 2009, 2011a, 2014; Lai et al. 2020).

LaPolla (1992) has noted that Tibetan is phonologically conservative, with many prefixes and suffixes, and objects to the notion that the hypothetical proto-Tibeto-Burman indexation prefixes and suffixes would have been lost, while other prefixes were retained.

More recent work on Tibetan has brought to light cases where modern languages such as Rgyalrongic are potentially more conservative than Written Tibetan (Jacques 2019). In Rgyalrong there is a very productive *\*kV* nominalizing prefix which is only attested in fossil form in Written Tibetan. Jacques (2018) finds fossilized *\*tV-* and *\*kV-* nominalizing prefixes in Tibetan. Examples (from Jacques 2019: 92) evidencing the *\*kV-* prefix are given in Table 20.

<i>Verb</i>	<i>Gloss</i>	<i>Nominal</i>	<i>Gloss</i>
<i>nag.po</i>	‘black’ (root = <i>nag</i> )	<i>gnag.pa</i>	‘a black ox’
<i>blu</i>	‘buy off, ransom’ (root = <i>lu</i> )	<i>glud</i>	‘ransom ritual’
<i>yo</i>	‘to be crooked’	<i>gyo</i>	‘deceit’

<i>nye</i>	‘to be near’	<i>gnyen</i>	‘relative, friend’
<i>nyo</i>	‘to buy’	<i>gnyod</i>	‘price (of a bride)’
<i>za</i>	‘to eat’	<i>gzan</i>	‘food (for animals)’
<i>zhib</i>	‘to be fine, subtle’	<i>gzhib</i>	‘(finely ground) flour’

Table 105. Fossilized traces of *\*kV-* in Tibetan (from Jacques 2019)

Bialek (2018: 219) also proposes the pair ཇགས་ *chags* ‘to be attached’ and ཇཅགས་ *gcags* ‘desirous one’. There are several different explanations of the stem-alternations in certain Tibetan irregular verbs, which will not be addressed here (see Jacques 2010b; Zeisler 2015, 2017; Hill 2020) and also an ongoing debate about the morphological status of the first consonant of certain complex onsets in Tibetan. For example, in the Tibetan word དུམྱིག *dmyig* ‘eye’, Jacques sees a fossilized *\*tV-* prefix (see Jacques 2014: 159-160), however Hill (2019a) is more cautious and states that more comparative work is needed before the morphological history of this form, and forms like it may be resolved. In any case, it seems clear from the examples in Table 20 that at least certain modern Tibeto-Burman languages, such as Rgyalrong, have more conservative morphology than Written Tibetan in this respect. It stands to reason that Tibetan once exhibited a greater degree of morphological complexity.

At the crux of the issue of whether or not Tibetan had person marking at an earlier stage is whether or not the language represents a ‘creoloid’ system which has collapsed much of the complex verbal morphology present at earlier stages of the languages (DeLancey 2014). Loss of complex morphology is a correlate of widespread adoption by non-native speakers and creolization (McWhorter 2007). See the discussion by DeLancey (2014b), but see also a thorough critique by Zeisler (2015), with reference to the history of the Tibetan empire.

### 6.9.5 Etymological transparency

One of the strongest objections to reconstructing a person marking system in Proto-Tibeto-Burman is that the person marking system is transparently related to the independent pronouns *\*ŋa* 1S and *\*na* 2S. This has been pointed to as evidence that the system is a recent grammaticalization (Caughley 1982; Nishi 1995; LaPolla 1992; Zeisler 2015). This is perhaps the strongest argument for the minimalist camp.

Jacques is open to the possibility that the free pronouns are actually derived from the bound forms. This is not impossible, and such a development has occurred in other language families, (see Jacques 2016), though it does seem unlikely. DeLancey's (2014a) response to the issue of the relatedness of the free pronouns and person markers is as follows:

The reconstructed 1SG and 2SG suffixes are unmistakably related to securely reconstructed independent pronominal roots, the same case has not been made for the plural forms, and it is not clear that there is a similarly obvious case to be made. In any case, the case for these forms as part of an ancient paradigm, which also includes several less transparent forms, is well-established.

The Yonghe person marking system marks singular and plural forms for second person, and so it may provide evidence which can be used to further this line of argumentation, as will be discussed below.

### 6.9.6 Teeter's Law

Looking beyond the hard evidence in this debate for a moment, some consideration should be given to the background of the linguists belonging to the different camps.

DeLancey, van Driem and Jacques, who has worked extensively on languages with indexation, want to reconstruct this type of system for the proto-language. On the other hand, LaPolla has worked extensively on Chinese, which has no indexation. In a criticism of the maximalist camp, LaPolla (2013) brings up this issue of ‘Teeter’s law’, the observation that linguists tend to give undue weight to the languages they are most familiar with when doing historical reconstructions. However, DeLancey (2014) is correct to point out that this principle of historical linguistics applies equally to LaPolla’s position on the matter.

### **6.9.7 Subgrouping**

Maximalists point out that indexation is found in several major branches of Tibeto-Burman and that this is evidence of retention as opposed to parallel developments (van Driem 1993; DeLancey 2014). However, there is some controversy about how the branches should be subgrouped in the first place.

For example, LaPolla’s arguments, which use indexation as evidence for subgrouping, and at the same time argue that the indexation is only found within one subgroup and therefore a later development, border on circularity. LaPolla, assuming that the apparently cognate indexation systems in the languages that have them are secondary developments, places all the groups with indexation into a single subgroup. This subgroup has not been widely adopted and is not supported by lexical innovations. Jacques objects to this on the grounds that, outside of the person marking prefixes and suffixes, there is little or no lexical evidence to warrant such a grouping. In response, LaPolla has said that lexemes are easily

borrowed whereas morphological paradigms are not (2013). See Genetti (2016) for a side-by-side comparison of the competing subgrouping schema.

The issue of subgrouping cannot be resolved here, but I wish merely to point out that the different camps begin with different assumptions. Having given an overview of the nature of the debate, we can now turn to the facts of Yonghe Qiang.

### 6.9.8 Person marking in Yonghe Qiang

Although all Qiang varieties have person marking, the paradigms differ significantly across varieties (Evans 2004; Sims 2016: 131; Zheng 2017).

The Yonghe, the person marking paradigm is less elaborate than the paradigms of other varieties. The Yonghe system shows elements of hierarchical alignment and sensitivity to distinctions based on speech act participant status (Bickel 2000; Konnerth & Delancey 2019).

The Yonghe person marking paradigm is given in Table 106.

<i>Person</i>	<i>Form</i>
1	-æ ~ a
2S	-ni ~ n
2PL	-j
3	'zero'

*Table 106.* The person marking paradigm of Yonghe Qiang

The Yonghe person marking paradigm is relatively simple, yet the pragmatic factors influencing the use of the person markers are complex. In Yonghe, the first person is marked



with ablaut. Second person singular is marked with a nasal suffix, and second person plural is marked with a yod suffix. Third person is unmarked. Table 107 illustrates the person marking on verb stems with different vowels.

<i>Stem Vowel</i>	$\Sigma$	$\Sigma:l$	$\Sigma-2S$	$\Sigma-2PL$	<i>Stem Gloss</i>
y	ty	tyæ	ty-ni	ty-j	‘to see’
	ly	lyæ	ly-ni	ly-j	‘to come’
	ey	eyæ	ey-ni	ey-j	‘to study’
i	zi	zjæ	zi-ni	zi-j	‘to believe’
	tehi	te <sup>h</sup> jæ	te <sup>h</sup> i-ni	te <sup>h</sup> i-j	‘to want’
	ki	kjæ	ki-ni	ki-j	‘to go’
e	je	jæ	je-ni	je-j	‘to live’
	le	læ	le-ni	le-j	‘to exist’
	jye	jyæ	jye-ni	jye-j	‘to have’
æ	tsæmæ	tsæmæ	tsæmæ-ni	tsæmæ-j	‘to look’
	zæ	zæ	zæ-ni	zæ-j	‘to be superior’
	k <sup>h</sup> ik <sup>h</sup> æ	k <sup>h</sup> ik <sup>h</sup> æ	k <sup>h</sup> ik <sup>h</sup> æ-ni	k <sup>h</sup> ik <sup>h</sup> æ-j	‘to be smug’
u	dzu	dza	dzu-ni	dzu-j	‘to sit’
	tsu	tsa	tsu-ni	tsu-j	‘to do’
	p <sup>h</sup> u	p <sup>h</sup> a	p <sup>h</sup> u-ni	p <sup>h</sup> u-j	‘to flee’
ʌ	xʌ	xa	xʌ-ni	xʌ-j	‘to full’
	nʌ	na	nʌ-ni	nʌ-j	‘to know’
	ʂʌ	ʂa	ʂʌ-ni	ʂʌ-j	‘to lift’

a	xa	xa	xa-ni	xa-j	‘to free’
	swa	swa	swa-ni	swa-j	‘to count’
	ka	ka	ka-ni	ka-j	‘to able’
i [apical]	dzi	dza	dzi-ni	dzi-j	‘to eat’
i [apical]	si	sa	si-ni	si-j	‘to recognize’
i [apical]	tʃi	tʃa	tʃi-ni	tʃi-j	‘to build’
a <sup>1</sup>	wa <sup>1</sup>	wa <sup>1</sup>	wa <sup>1</sup> -ni	wa <sup>1</sup> -j	‘to be tired’
ʌ <sup>1</sup>	kʌ <sup>1</sup>	ka <sup>1</sup>	kʌ <sup>1</sup> -ni	kʌ <sup>1</sup> -j	‘to go (Stem II)’

Table 107. Inflected verbs in Yonghe Qiang

Each part of the paradigm is discussed below.

#### 6.9.8.1 First person

For Yonghe Qiang, first person is marked through ablaut. There are five different vocalisms that can be used to mark first person:

- (1) [a] after back vowels and apical vowels
- (2) [æ] after [e, æ]
- (3) [jæ] after [i]
- (4) [ɥæ] after [y]
- (5) [a<sup>1</sup>] after rhotic vowels

These changes parallel the harmonic processes that apply to prefixes, in that they constitute an essentially front-back system. Examples showing inflected verbs from connected speech are given in (84-85).

- (84) kjèpútsì t<sup>h</sup>i té-là < là ‘put’  
pillow there ORT:up-put:l  
‘I put (the rocks) there in the pillow.’

- (85) ká d̀ò-p<sup>h</sup>ǎ < p<sup>h</sup>ú ‘flee’  
 1S ORT:away-flee:1  
 ‘I’ve fled’

It is important to note that for the stems with the [u] vocalism, such as in (104) there is variation between rounded and unrounded forms. Thus *d̀ò-p<sup>h</sup>wǎ* and *d̀ò-p<sup>h</sup>ǎ* are both possible. Because bilabial + [w] combinations are not found in underived environments, these are represented with the non-labialized forms here. Thus, *d̀ò-p<sup>h</sup>ǎ* ‘I’ve fled’. In both cases, the prefixes harmonize with the root vowel and not with the inflected stem. Thus, the inflected form of *p<sup>h</sup>ú* ‘to flee’ is *d̀ò-p<sup>h</sup>ǎ* rather than the unattested *d̀à-p<sup>h</sup>ǎ*.

Person marking is enclitic to the verb and occurs in the final position. Example (86) illustrates that the person marking enclitic occurs on the AM:go verbal suffix. Note that person marking is not found in (86c) with a non-finite converb.

- (86) a. ká té-p̀ù l̀è h́á-p̀ù  
 1S seven-year have that-year  
 ‘When I was seven years old,’
- b. l̃<sup>1</sup>z̀ì-èy-kjǎ̀  
 book-study-AMgo:1S  
 ‘I went to school’
- c. l̃<sup>1</sup>z̀ì-èy-kì-nǎ̀  
 book-study-AM:go-LNK  
 ‘when I was going to school’

The tone of the first-person bearing syllable is directly dependent on the tone class of the verb as well as the aspect of the verb and the larger constructional frame.

The same ablaut pattern is used for first person plural as well as first person singular. Note that the ablaut pattern is intricate and shows potential signs of age. In some cases, it even shows signs of attrition. For example, verb stems ending in [a], [æ], and [aʰ] vocalisms exhibit no change when they inflect for first person. This may be the early stages of a pathway along which the person marking system could be lost.

It is probably reasonable to assume that this ablaut pattern originates from a full suffix, presumably cognate with the PTB first person pronoun \**ŋa* (see Jacques 2006 on pronouns in proto-Qiang).

#### 6.9.8.2 *Second person*

The second person markers, unlike the first person, make a distinction between singular and plural. We will look first at the singular form and then the plural. The second person singular marker has the following variants.

- a. [-ní ~ nì] in most cases
- b. [-n] in certain reduced instances
- c. [-m] in a fused form with the politeness marking suffix *-bo*.

Example (87) illustrates the full syllable *-ní*.

- (87) ʔú ká=j            fè-zwè-ní  
 2S 1S=PAT        ORT:down-tie-2S  
 ‘You have tied me down’

When the second person singular suffix [-ni] cliticizes to a verb stem with a non [i] vowel, the vowel quality of the stem is warped slightly. The vowel quality of the preceding vowel is raised and there is a perceptible off glide. Thus, example (87) is phonetically [fè-

zwèj-ní]. One possible way of capturing this would be to analyze the 2S marker as /-jni/.

However, as this would not be an otherwise phonotactically valid syllable, this sub-phonemic alternation will not be represented here.

The tone of the suffix is context-sensitive and depends on both the verbal tone class as well as the position within the string of syllables. Examples (89-90) show the 2S suffix with a high tone and low tone respectively.

(89) ʔà<sup>1</sup>-wà<sup>1</sup>-ní  
ORT:in-tired-2S  
'you're tired' (expression of gratitude)

(90) ʔú màtʂá mé-t<sup>h</sup>è-ly-nì  
2 food NEG-eat-come-2S  
'You haven't been coming to eat food.'

More work would be needed to sort out all the circumstances which predict high and low tone for this prefix.

An example of the reduced form [-n] is given in (91). This example is from ritual text where the line is condensed to three syllables in order to fit the meter of the text.

(91) a. ʔó mú<sup>1</sup>pà<sup>1</sup>  
EXCL god  
Oh, God!

b. mú ɛ̀y t<sup>h</sup>á-n  
sky light able-2S  
'you let the sky be light'

Lastly, an example of the reduced [-m] allomorph is given in (92).

- (92) mǎě            ʔλ-mλ-ná            kátλ    si-lé-kì-m-bǒ  
 mother        ORT:in-NEG-know    ADV    ORT:downriver-put-AM:go-2-POL  
 ‘Please go and put (the ax) in (the basket) in such a way that mother doesn’t

know!

This variant occurs exclusively before the politeness marking suffix, pronounced [mbǒ].

It is not a stretch of the imagination to presume the *-nì ~ -ní* suffix to be cognate with the Proto-Tibeto-Burman second person pronoun *\*na*, especially in light of the *\*a > [i]* in Qiang for open syllables. However, as Hill (2015: 189) points out, there is a “danger of discussing the relationship between pronoun and verb agreement in the *Ursprache* without a solid understanding of the historical phonology of each of the languages considered.” Much more careful work is needed before a robust comparison of the pronouns of Tibeto-Burman will be possible.

The second person plural is marked with a yod suffix *-j*. In prior work (Sims 2016), this marking was previously overlooked due to its structural similarity to a *-j* evidential marking suffix (see below). An example of this suffix is given in (93).

- (93) ʔèlé    hǐ        sí-t<sup>h</sup>è-j  
 2PL wine    ORT:downstream-drink-2PL  
 ‘you (pl) drank wine’.

This suffix is simple in that there are no allomorphs in the corpus. Yonghe 2PL *-j* appears to be cognate with the Ronghong Qiang 2PL marker *-i*. There is no third person marking. Comparisons with other Qiang varieties will be covered below.

Compared to other languages of the area, the Yonghe paradigm is relatively simple.

Table 108 juxtaposes the person marking with other varieties of Qiang. Puxi data are from Huang C. (2004). Ronghong data are from LaPolla & Huang (2003). Mawo data are from Liu (1998). Luoduo data are from the author's fieldnotes. This table also includes the category of direction/applicative.

	<i>Puxi</i>	<i>Ronghong</i>	<i>Yonghe</i>	<i>Mawo</i>	<i>Luoduo</i>
1		$\Sigma\text{-}\text{æ} \sim \text{a}$		$\Sigma \text{ a} \sim \text{a}$	
1PL	$\Sigma\text{-}\text{ɪ}$	$\Sigma\text{-}\text{ɪ}$	$\Sigma\text{-}\text{æ} \sim \text{a}$	$\Sigma\text{-}\text{ɪ}$	$\Sigma \text{ a} \sim \text{a}$
2	$\Sigma\text{-}\text{n}$	$\Sigma\text{-}\text{n}$	$\Sigma\text{-}\text{n}$	$\Sigma\text{-}\text{n}$	$\Sigma\text{-}\text{n}$
2PL		$\Sigma\text{-}\text{i}$	$\Sigma\text{-}\text{j}$	$\Sigma\text{-}\text{tei}\text{-}\text{n}$	$\Sigma\text{-}\text{tei}\text{-}\text{n}$
3	$\Sigma\text{-}\emptyset$	$\Sigma\text{-}\emptyset$		$\Sigma\text{-}\emptyset$	$\Sigma\text{-}\emptyset$
3PL		$\Sigma\text{-}\text{tei}$	$\Sigma\text{-}\emptyset$	$\Sigma\text{-}\text{tei}$	$\Sigma\text{-}\text{tei}$
APPL / DIR (> 3)	--	$\Sigma\text{-}\text{wə}$	$\text{-wu}$	$\Sigma\text{-}\text{tʃə}$	$\Sigma\text{-}\text{tʃə}$
INV (3> 1,2)	--	$\Sigma\text{-}\text{sa} \sim \text{ʂa}$	--	$\Sigma\text{-}\text{sa}$	$\Sigma\text{-}\text{sa}$

Table 108. Person marking in a subset of Qiang varieties

A major difference between the varieties is that Yonghe makes no number distinction for first person. Note that both Yonghe and Puxi have merged number distinctions for first person, but that the direction of change is opposite in the two varieties, with the singular becoming the generic 1 marker in Yonghe and the 1PL becoming the generic 1 marker in Puxi. Of particular interest is the second person plural marker  $-j$ , which is cognate with the  $-i$  marker in the Ronghong variety. This marker has been replaced by a composite form PLURAL+2 in the Luoduo and Mawo varieties, possibly due to avoidance of homophony with the  $-j$  evidential marking suffix which is found in Luoduo (author's fieldwork) and Mawo (Evans & Sun 2013). The data in Table 108 represent only a very small subset of the person marking

paradigms in a diverse set of Qiang dialects. Much more work will be needed to reconstruct the person marking paradigm for proto-Qiang.

## 6.10 Epistemic marking

Tibeto-Burman languages have a wide range of evidential or epistemic marking systems which have interesting cross-sectionality with person marking (Bickel 2000; Aikhenvald & LaPolla 2007). Evidential markers are used to express source of information (Aikhenvald 2004) as well as mental access to information (Daudey 2014a; Tournardre & LaPolla 2014).

Yonghe, like other varieties of Qiang (LaPolla & Huang 2003; LaPolla 2003) has a sub-system within the grammar which marks evidentiality and degree of certainty or epistemic access.

The evidential system of Ronghong Qiang has been described as having three separate suffixal markings: visual (*-u ~ -wu*), inferred/mirative *-k*, and reported/hearsay marking *-j* (see LaPolla & Huang 2003: 204-211, LaPolla 2003).

In Yonghe Qiang, we find no corollaries of the visual and inferential evidentials, and only one of the suffixes seems to be related to that of the Ronghong hearsay marking evidential. Like other varieties of Qiang (LaPolla & Huang 2003), and some varieties of Pumi (Daudey 2014b) the person marking in Yonghe Qiang has meaning within the evidential system. Person marking and evidentiality are thus best treated as part of the same paradigm. This section will introduce the evidential markers of Yonghe and discuss how they interact with the person marking suffixes.

### 6.10.1 Epistemic suffixes in Yonghe Qiang



There are two evidential marking suffixes: *-j*, and *-ɛí*. Table 24 gives a comparison of the frequency of the suffixes within the corpus.

<i>Gloss</i>	<i>Form</i>	<i>Count</i>
EVID	-j	692
NVOL	-ɛí	31

Table 109. Evidential markers of Yonghe Qiang

The glosses EVID, and NVOL stand for evidential and non-volitional, respectively. The ratios may be skewed somewhat by the type of data in the corpus, but the overwhelming lopsidedness is obvious. The *-j* suffix predominates, while *-ɛí* is minimally attested. There not much that can be said about *-ɛí* at this point, in part due to its meagre attestation in the corpus. On the other hand, the ubiquitous nature of the *-j* suffix makes understanding the semantic content of the suffix difficult. ‘Zero-marked’ 3<sup>rd</sup> person forms have evidential semantics separate from these suffixes, but counts are not included here as it would take a case-by-case analysis of the zero marking to determine whether an instance is 3<sup>rd</sup> person ‘zero marking’ or if it is unmarked for another reason.

#### 6.10.1.1 The *-j* suffix

In analyses of other varieties of Qiang which have this same marker, the evidential marking suffix *-j* has sometimes been treated as a third person marker. For example, Liu (1998), treats a *-j* suffix in the Mawo variety as a third person marker. It is true that for most statements made about non-speech act participants, the *-j* suffix is used. However, for the Mawo variety, this is best analyzed not as a third person marker but as an evidential marker (Sun & Evans 2013). In their revised analysis of Mawo, Sun & Evans call it a *mediative evidential sensu*

Lazard (1999). The suffix is cognate with what Huang C. (2004: 156) calls the ‘3<sup>rd</sup> person change of state’ marker *-i* in Puxi Qiang.

In Yonghe, the *-j* suffix is not a person marker but something of an epistemic marker, and is glossed as EVID. The exact categorization of the *-j* suffix is not straightforward. Rather than to pin it to one definition, it is perhaps better to give examples of the wide range of situations in which it is used. Consider the examples in (94).

- (94) a. múk<sup>h</sup>λ-làpà      ts<sup>h</sup>wáé-mù      mè-jé-j  
 smoke-flower    plant-NOM    NEG-exist-EVID  
 ‘there aren’t any people planting poppies’
- b. kλ<sup>h</sup>kλ<sup>h</sup>’      hú-j  
 before          exist-EVID  
 ‘There were in the past.’

In (a) the speaker is talking about the present, and in (b) about known history. It is a fact that poppies were cultivated in this region in the past (see LaPolla & Huang 2003: 16). Note the same degree of certainty is used for the two clauses even though one is about the past and one is about the present. Importantly, in both cases, there is a degree of distance between the speaker and the opium cultivators. For instances in which third parties are talked about without this degree of distance, there is usually no evidential marking and the third person parties are zero marked, as in (95).

- (95) màtşá      ʔà-twá      t<sup>h</sup>é  
 food          one-CLF      eat  
 ‘(the Qiang) have a meal together’

In this sentence, both the speaker and the referents are all Qiang and so no *-j* suffix is used. If the researcher, who is not Qiang, were to say the same sentence, or if the sentence were about Tibetans, or another group of people, the use of the *-j* suffix would be expected.

The *-j* suffix is not a pure evidential in that it does not necessarily encode the sensory source of information (see Aikhenvald 2004). Rather, it is used for casual observations about immediately visible phenomena. Example (96) is from a set of sentences produced by speakers asked to describe what they saw in the ‘BowPed’ (Bowerman & Pederson 1992) set of pictures.

- (96) kàwú          kùkú-há          ɕimí    ʔà-tá          sé-j  
 bowl          inside-LOC    fruit    one-CLF    exist-EVID  
 ‘there’s a piece of fruit inside the bowl’

A total of 32 sentences were elicited from Mr. Yang Zhiquan using the stimuli in the BowPed set. All 32 were marked with the *-j* suffix. The *-j* suffix is also the unmarked choice of inflection for finite verbs in traditional stories. Example (97) is from the story of the son of *Pæjæ*.

- (97) a. pæjælypù=j          tɕəw    zí-zìkλ¹          ʔà-tá-j  
 PN=PAT          just    demon-land    ORT:in-lead-EVID  
 ‘(then the demon) took the son of *Pæjæ* into hell’
- b. zí-zìkλ¹                                  ʔà-tá-næ-ni  
 demon-land                              ORT:down-lead-LNK-TOP  
 ‘took him into hell and,’

Note that we see no evidential marking used on the recapitulated, topicalized ‘converb’ in (98). In this way, evidential marking behaves similarly to person marking in that it only occurs on finite verbs.

There are also subtle semantics of finality for this *-j* suffix which can be noticed in the following example from a traditional narrative describing the daily activities of a farmer.

- (98) a. mǔnλ      fiè-ɛ́y-næ  
 sun            ORT:down-shine-LNK  
 ‘it became daylight and,’
- b. màtʂá              sí-t<sup>h</sup>è-næ  
 cooked.rice        ORT:downriver-eat-LNK  
 ‘he ate his food and,’
- c. zú-li-kì              hλ<sup>l</sup>-kλ<sup>l</sup>-j  
 earth-plow-AM:go    ORT:out-go.PRIV-EVID  
 ‘went out to go till the earth.’
- d. ɛ́í              hè-jý  
 oxen            ORT:out-shoo  
 ‘letting the oxen out,’
- e. tʂátsì  
 ‘then’
- f. túɛì              tλ-tú  
 yoke            ORT:up-shoulder  
 ‘shouldering the plow,’
- g. zúli-kì              hλ<sup>l</sup>-kλ<sup>l</sup>-j  
 earth-plow-AM:go    ORT:out-go.II-EVID  
 ‘went out to go till the earth.’

We see that the *-j* suffix is not a third person marking suffix, otherwise we would expect to see this suffix in (98d) and (98f).

### 6.10.1.2 The *-ɛí* suffix

There is another suffix *-ɛí* which is glossed here as a non-volitional marker ‘NVOL’. This suffix is not well attested in the corpus, though its semantics are more straightforward than the *-j* suffix. It is used for scenarios involving first person. However, this marker is used instead of [-æ ~ a], when use of the regular first-person marker would imply an intentional semantics incompatible with certain verbs or situations.

The verbs in examples (99-102) do not occur with regular first person marking in the corpus, but only ever with the *-ɛí* suffix. Note that these examples show that this non-volitional suffix occurs after the aspect marking suffixes. This suffix is unusual in that it has an invariant high tone in the small number of attested examples.

- (99) t̀-̀kùtù-wà-ɛ́  
ORT:up-go.crazy-PROS-NVOL  
‘I would’ve gone crazy.’
- (100) fiè-pé-jì-ɛ́  
ORT:down-age-CSM-NVOL  
‘I’ve gotten old’
- (101) ká mùzì fià-ts<sup>h</sup>wá-ɛ́  
1S sleep ORT:down-sleep-NVOL  
‘I fell asleep’ (speaker said this upon waking up on the couch).
- (102) ɬ̀pù            h́-t̀            t̀-̀tsù            mà-ká-jì-ɛ́  
demon            that-CLF            ORT:up-meet NEG-able-CSM-NVOL  
‘I stopped encountering ghosts.’

Losing one’s mind, getting old, falling asleep, and encountering evil spirits, are not things one does actively or intentionally, and so the *-ɛí* marker is used here rather than the regular ablaut-marked first person. There is, in some cases, as in (101), an inferential semantics to

this in that the speaker is coming to the realization of the situation. This has been discussed as a difference between assimilated and unassimilated knowledge (see Bickel 2000).

There are other, more complicated uses of *-ɛí* where the action itself was volitional, but the construal of the situation is such that the speaker does not have control. Consider example (103), from a Pear Film retelling. In the film, a man picks several baskets of pears, and later realizes that some were stolen. In this example the speaker gives voice to the reaction of the man realizing his pears were stolen.

- (103) a. láwhλ<sup>1</sup> tɛǎw  
 old.man just  
 ‘(the) old man was just like,’
- b. ʔájà  
 EXCL  
 ‘dammit!’
- c. ká kípì fè-tɛ<sup>h</sup>ý-ɛí  
 1S so.many ORT:down-pick-NVOL  
 ‘I had picked so many,’
- d. míe-sì ʔá=j tλ-xý-wù jé  
 person=NMZ 1S=PAT ORT:up-steal-APPL EXCL  
 ‘someone stole them from me!’

Another example of this type is found in a story about a son who beat his mother (104).

After his mother dies, he regrets beating her and says to her spirit.

- (104) a. hλ-tú ʔá ʔú=j  
 that-time 1S 2S=PAT  
 ‘at that time I (to) you,
- b. kλté-ɛí  
 beat-NVOL

‘I beat you’

A more intensive study could reveal more insights into the nature of *-ɛí*, but for the time being it is sufficient to understand *-ɛí* as construing an event as beyond the speaker’s sphere of control.

### 6.10.1.3 Diachronic origins

Possible sources of these markers are as follows. It has been suggested that the *-j* suffix is originally a hearsay evidential which comes from the independent verb *jí* ‘to say’ (LaPolla & Huang 2003). One potential obstacle for this analysis is that the *-j* suffix can occur on the verb ‘to say’ in Yonghe Qiang. A possible historical connection of the *-ɛí* suffix in Yonghe Qiang is that it is related to the Tangut particle □ 3916 *sji* (tone 2), which marks inferential semantics (see Lai et al. 2020 for examples).

## 6.11 Interaction of person marking and evidential marking

Similar to other languages of Sichuan, such as Pumi (cf. Daudey 2014a), the person marking suffixes in Yonghe are woven into the broader framework of evidentiality, volitionality, and epistemic access. For example, in Ronghong Qiang, the person marking system has become enmeshed with the direct-inverse system (Sims *forthcoming*).

Comments about oneself are generally marked with first person. For example, a person with an upset stomach might say about themselves, *ká p<sup>h</sup>ũ zjǎ* 1S stomach hurt:1 ‘I (have a) stomachache’. A speaker might also say of their stomach, *zǐ-j* hurt-EVID ‘it hurts’. The

difference for this comment is neither source of information nor volitionality, but rather a difference in the construction of the event as about oneself or one's body part.

Direct statements to a second person singular addressee use the 2S person marker, unless the statement has to do with an assessment of the internal state of the addressee. Consider example (105), which comes from a dialogue in a fable.

- (105) a. héj      ?ú      mλ-ná-j  
DISC    2S      NEG-know-EVID  
'hey! you don't know!'
- b. ká                      ?è-tyæ  
1S                          ORTin:-see:1  
'I saw it!'

In this case the lack of 2S marking is due to the statement being about the internal state of the addressee. There are some instances where 2S is used for statements about internal states. One example is in the construction *?à'-wà'-ní* ORT:in-tired-2S. This literally means something like 'I can tell you are tired' but is used commonly as an expression of thanks and appreciation. For direct statements made to plural second persons, it is sometimes unclear whether a *-j* suffix represents 2PL marking or if it is the EVID marking *-j* suffix. Studies in evidential marking usually classify these markers into discrete categories according to sensory origin of evidence (Aikhenvald 2004). However, for Yonghe Qiang these markers do not seem to be tied to sensory input so much as speaker attitude and certainty.



## 6.12 Interrogative suffixes

There are a number of different interrogative marking suffixes. This section briefly introduces these constructions. A full account of the tonal properties of these suffixes is unfortunately beyond the scope of this chapter.

The suffix *-mì ~ mí* is used to form polar (yes/no) questions (106-107).

- (106) nè-kí-wà-mì  
ORT:upstream-go-PRS-Q  
'are you going to go?'

- (107) kátà wù-mí  
thus COP-Q  
'Isn't that right?'

The suffix *-mà* is used for questions about what the addressee is presently doing.

- (108) màtśá mé-t<sup>h</sup>è-mà  
food NEG-eat-Q  
'Aren't you eating?'

The suffix *-tèimà* indicates a rhetorical question, typically with a critical tone. Example in

(110).

- (109) kátàhà tápù tē<sup>h</sup>i-tèimà  
thus very like want/need-Q  
'Do you really need to be so happy?'

The suffix *-tɛà* is used for non-polar questions. An example is given in (111).

- (110) tsí-tà      wǎjí    tsí-tà      tá-kì-wà-tɛà  
this-CLF    bird    this-CLF    where-go-PROS-Q  
‘and where is this bird going?’

In (111) the speaker is lamenting young people’s lack of knowledge of local toponyms.

- (111) hǎ'ly              tá-wù-tɛà              tǎ-jí-wà-j  
Mao.County          where-COP-Q          CONT-say-PROS-EVID  
‘They will even say where is Mao County?’

### 6.13 Non-final clause-linkers

Like many other Tibeto-Burman languages, Yonghe Qiang exhibits clause chains. Typically, only the final clause in the chain receives evidential or person marking. Non-final clauses are topics/conditionals (cf. Haiman 1978: 564) and have their own set of endings. The most common of the non-final linkers is *-næ*. The tone of *-næ* is very difficult to ascertain. It seems to be underspecified and, because it occurs at the end of the Verb-Complex, it is subject to global final declination in pitch. I have left it unmarked for tone and this issue will have to be explored further at another time.

Somewhat surprisingly, it may sometimes also occur after finite verb morphology rather than in place of finite verb morphology. The uses of *-næ* are very involved and unfortunately a full account of the morpheme’s role in clause chains is well beyond the scope of this chapter. The following example gives a small taste of the ubiquity and complexity of this

morpheme within a narrative excerpt. This is an account by Mr. Yang Zhiquan of an encounter with a ghost on the way back from Lapu Village.

- (112) a. múnλ fià-xwá-næ  
 sun ORT:down-set-LNK  
 ‘the sun set and,’
- b. nè-lỳ-jí-næ  
 ORT:upriver-come-CSM-LNK  
 ‘(I) came upriver and,’
- c. tsá njænjæ t<sup>h</sup>í ʔè-te<sup>h</sup>í-næ  
 here bend.in.road there ORT:in-arrive-LNK  
 ‘got to the bend in the road there (close to) here,’
- d. ʔo mùwú fufufú t<sup>h</sup>á-zì kátà  
 EXCL wind ideophone ORT:up-make.noise thus  
 ‘(it) made a sound like the wind *fufufu*’
- e. k<sup>h</sup>ý kási jyé  
 dog likeness exist  
 ‘(it) had the likeness of a dog’
- f. k<sup>h</sup>ý gázì lé  
 dog sound have  
 ‘(it) had the sound of a dog,’
- g. há<sup>h</sup>há<sup>h</sup>há<sup>h</sup> kjà-t<sup>h</sup>á - ká tàwá-kjà=t<sup>h</sup>á ʔà-tʂ<sup>h</sup>í-næ  
 ideophone behind- 1S behind=there ORT:in-chase-LNK  
 ‘*harharhar* behind—it was chasing my behind there like that’
- h. k<sup>h</sup>ỳ-wú-næ ʔè-mè-tý-éí  
 dog-COP-LNK ORT:in-NEG-see-NVOL  
 ‘if it was a dog, I couldn't see it
- i. miè-wú-næ ʔè-mè-tý-éí  
 person-COP-LNK ORT:in-NEG-see-NVOL  
 ‘if it was a person, I couldn't see it’
- j. lá lǔpù ʔà-tá t<sup>h</sup>á-tsù-næ  
 in.that.case demon one-CLF ORT:up-meet-LNK  
 ‘well, ran into a ghost and,’

- k. ká            dò-kù-næ  
 1S            ORT:away-fear-LNK  
 ‘I became scared and,’
- l. nλ-p<sup>h</sup>í            nλ-p<sup>h</sup>í            kλtsú    jí-tλ            tλ-ʂλ-næ  
 stone-white    stone-white    piece    two-CLF            ORT:up-pick up-LNK  
 ‘white stones— picked two pieces of flint and’,
- m. bíŋbíŋbóŋbóŋ-næ  
 ideophone-LNK  
 ‘ (I began) shamanizing and,’

This example also illustrates the use of *-næ* with an Ideophone (112-o).

## 6.14 Directives

Directives do not take evidential marking, but instead belong to a different group of Verb-final elements, depending on the level of forcefulness of the directive. Topicalized verbs are the weakest form of directives. This politeness strategy is common in languages of Mainland Southeast Asia. A slightly stronger directive can be formed with the polite imperative suffix *-bo* (113). The directive markers can cause alternations in preceding elements. For example, the politeness marking post-verbal suffix *-bo* changes the second person marker to *-m* instead of *-n*.

- (113) ʔæ-tsæ.mæ-mbǒ  
 ORT:in-look-2S:POL  
 ‘Please have a look’.

The suffix, *-nú*, is the strongest imperative. It is appropriate for directions to subordinates within teacher-apprentice or parent-child relationships. The etymology of this suffix is yet

unclear but appears to have derived from a fusion of second person singular *-n* and another morpheme. An example is given in (114).

- (114) lá            dʒì-tá-nù  
DISC    ORT:towards-take-2.IMP  
‘here, take this!’

## 6.15 Chapter Summary

This chapter has given an extensive overview of suffixal morphemes in Yonghe Qiang. Of particular interest are the nominalizing suffixes. These suffixes are key elements of the morpho-syntax of the language. Some of these derivational nominalizing suffixes have counterparts in other varieties, as well as in different subgroups of Tibeto-Burman. Thus, the study of Yonghe Qiang derivational suffixes contributes to Tibeto-Burman historical linguistics as well as the broader study of nominalization, word-formation, and the evolution of morpho-syntax.

This chapter has given an analysis of the Yonghe applicative suffix, and the linking of this suffix with its historical source as an independent verb ‘to give’. More research is needed on the connection between the applicative suffix and the direct markers within the direct-inverse systems found in northwestern varieties of Qiang.

For both the nominalizing suffixes as well as the person marking suffixes, there are interesting questions about the cognancy of these elements with other Tibeto-Burman languages. The approach here has been to lay out some possible connections given prior research on other Tibeto-Burman languages, while remaining open to the idea that better explanations may come to light in the future.



## ***Chapter 7: Summary***

The purpose of this chapter is to summarize the findings of the dissertation, and to discuss the advantages and disadvantages of this contribution. It will also point to where further work is needed. It only makes sense to discuss the contributions and shortcomings of the dissertation chapter-by-chapter. Emergent cross-chapter themes will also be discussed.

### **7.1 Chapter 1**

This dissertation fills a gap in the literature on eastern varieties of Qiang. It is the first detailed analysis of the phonology and morphology of an ‘eastern’ variety of Qiang. Yonghe is possibly the easternmost of the Qiang varieties. With respect to dialectology, the major contribution of this work is the proposal of a small set of regular sound changes in different Qiang dialects:

- a. Yonghe:
  - \*ak > ǎ
  - \*Sp > ϕ
  - \*Zb > β
  
- b. Longxi:
  - \*ak > jà
  - \*Sp > p
  - \*Zb > b
  
- c. Ronghong:
  - \*ak > je

These proposed changes mark a pivot towards using the comparative method for Qiang dialectology. This is also the first work to systematically compare rhymes in Qiang to attested written languages such as Tibetan, Burmese, and Japhug rather than comparing them to reconstructed starred forms. Using regular sound change and shared innovations as a

foundation for subgrouping has advantages over previous classifications based on either typological traits (H. Sun 1981; Liu 1998), or on lexicostatistical approaches (Sims 2016). For example, a typological classification would place Longxi and Yonghe together based on the fact that they both have simplified complex onsets. The more careful approach notices that both have simplified complex onsets, they have done so in variegated ways which suggest parallel development rather than shared innovation. The benefit of the neogrammarian approach presented here is that it provides well formulated, falsifiable hypotheses (cf. Hill 2019a), such as  $*ak > [ǣ]$ , which may be subject to revision and or validation in future work.

## **7.2 Chapter 2 Segmental phonology**

With respect to segmental phonetic and phonological description, the contribution of this work is that it is the first to cite primary data directly. Even though there is a substantial literature on various Qiang varieties, replete with many discussions of the phonetics of the language, including the vowels and tone systems, none have provided recordings and are as such, not independently verifiable. I believe the approach of this dissertation is a step in the right direction for making empirical claims about languages based on recordings. It also gives empirical measurements for certain measurable characteristics such as voice onset time.

Relative to other varieties, especially varieties of northwestern Mao County and Heishui County, the Yonghe variety has a simple syllable canon. In the areas where the sound system is changing, sounds which are not found in Sichuanese Mandarin are being lost in the speech of younger speakers. For example, with the debuccalization of the voiceless lateral fricative



to a voiceless glottal fricative Qiang is becoming more like that found in local varieties of Sichuanese Mandarin.

The shortcoming of the phonological sketch presented here is that it is heavily based on the speech of one individual, Mr. Yang Zhiquan, a middle-aged man from Ka'er Village. More work would be needed to sort out the speaker-specific, village-specific, or gender-specific, influences that are present in the data. Given the rapidly changing sociolinguistic landscape, it would be useful and important to represent the speech of both older and younger generations separately.

### **7.3. Chapter 3 Suprasegmental phonology**

The discussion of the suprasegmental phonology takes a bottom-up approach to classifying forms according to their tonal melodies. This is different from an approach of writing the pitch for each syllable using Chao numbers, as has been done for some dialects such as Taoping (Sun 1981), or boiling the system down to atomic units of H and L in an Africanist approach as has been done for other dialects such as Longxi and Mianchi (Evans 2001b, 2008). The tonal system of the Yonghe variety is somewhat unique both within Qiang and also within the broader typology of tonal languages. Earlier approaches using auto-segmental analysis for Yonghe Qiang (Sims 2017) were unnecessarily complicated and ultimately lacked explanatory power. Treating constructions as basic, and not as necessarily composed of atomic units of L and H, is freeing and helps to give an appreciation of gradience, asymmetry, and irregularity inherent in the system. An interesting finding is evidence of the difference between tonal properties of Yonghe Nouns and Verbs. Nouns are the only forms which have the 'initial rising' type and verbs are the only instances of the 'final rising' type.

This chapter shows how the four-way tonal contrast in the local variety of Sichuanese is boiled down to a two way-contrast in loanwords and that it is the pitch height at the onset of the syllable which predicts which category a loanword will be borrowed into. This is reminiscent of pitch-accent systems that have been described for other languages of the region such as Minyak (Ikeda 2007).

One of the weaknesses of this chapter is that it does not deal more in depth with interaction between tone and general prominence or larger prosodic frames. Although this chapter mentions utterance final phenomena such as the glottal stop, more work could be done to look at the interaction of different prosodic boundaries on tone.

#### **7.4 Chapters 4, 5, & 6**

The approach of Radical Construction Grammar (Croft 2001) has the merit of treating a given language on its own terms by not assuming global categories. This approach is able to account for many constructions in a straightforward. One possible weakness in this approach is that the distributional analysis of RCG does not give due consideration to phonological and semantic criteria as organizational principles for constructions. An example of this shortcoming can be seen with the Existential Verbs in Yonghe Qiang, which are defined not only by their unique distributions within constructional frames, but also by their unique phonology and semantics. One way of interpreting these characteristics is to consider that they support Existential Verbs as a separate class of construction and that phonological, semantic, and distributional considerations are complementary rather than being antagonistic.

This dissertation has followed a more or less rigid form-to-function approach. This is reflected in prefixes and suffixes being treated in separate chapters. The prefixes and suffixes

are not entirely parallel and there is an asymmetry in their number as well as the degree to which they participate in phonological or morpho-phonological alterations.

The dissertation did not organize description around semantic categories such as Aspect or Transitivity. This is somewhat unfortunate as some of the aspectual affixes are prefixes whereas others are suffixes. It would be helpful to combine these discussions in a separate chapter or section specifically looking at, for example, Aspect in Yonghe Qiang.

Throughout the dissertation, we have seen the integration of Chinese loanwords at various levels of the language. Chinese loans are subject to the same types of neutralizations as Qiang forms according to the constructions into which they are put. It is apparent that tonal melodies are important tools used to indicate different construction types. This function has been discussed largely as ‘neutralization’ of lexical tones in certain contexts, but perhaps a better way to think of this is as construction-type demarcation through tone.

Finally, this dissertation makes contributions to the intersection of person marking with evidential marking and contributes to the growing typology of the interaction between these types of grammatical sub-systems. The issue of clause final linkers and clause chaining is a fascinating issue that has not been treated in depth here. It is hoped that this present work will serve as a foundation for future work on the issues introduced here.

## *Appendix:*

A spreadsheet containing the data cited in this dissertation, as well as information about the origin and location of a subset of that data is available at the following link:

<https://doi.org/10.5281/zenodo.5496084>

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