



HAL
open science

Endangered Languages in Southwest China Challenges and Gains

Katia Chirkova

► **To cite this version:**

Katia Chirkova. Endangered Languages in Southwest China Challenges and Gains. Master. Lecture series on Chinese linguistics, Ca' Foscari University of Venice, Department of Asian and North African Studies, Italy. 2022. hal-04090430

HAL Id: hal-04090430

<https://hal.science/hal-04090430v1>

Submitted on 5 May 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Endangered Languages in Southwest China

Challenges and Gains

Katia Chirkova



Outline

Part 1. Language endangerment

Part 2. Southwest China

Sino-Tibetan
Tibeto-Burman

Part 3. Challenges

global
local

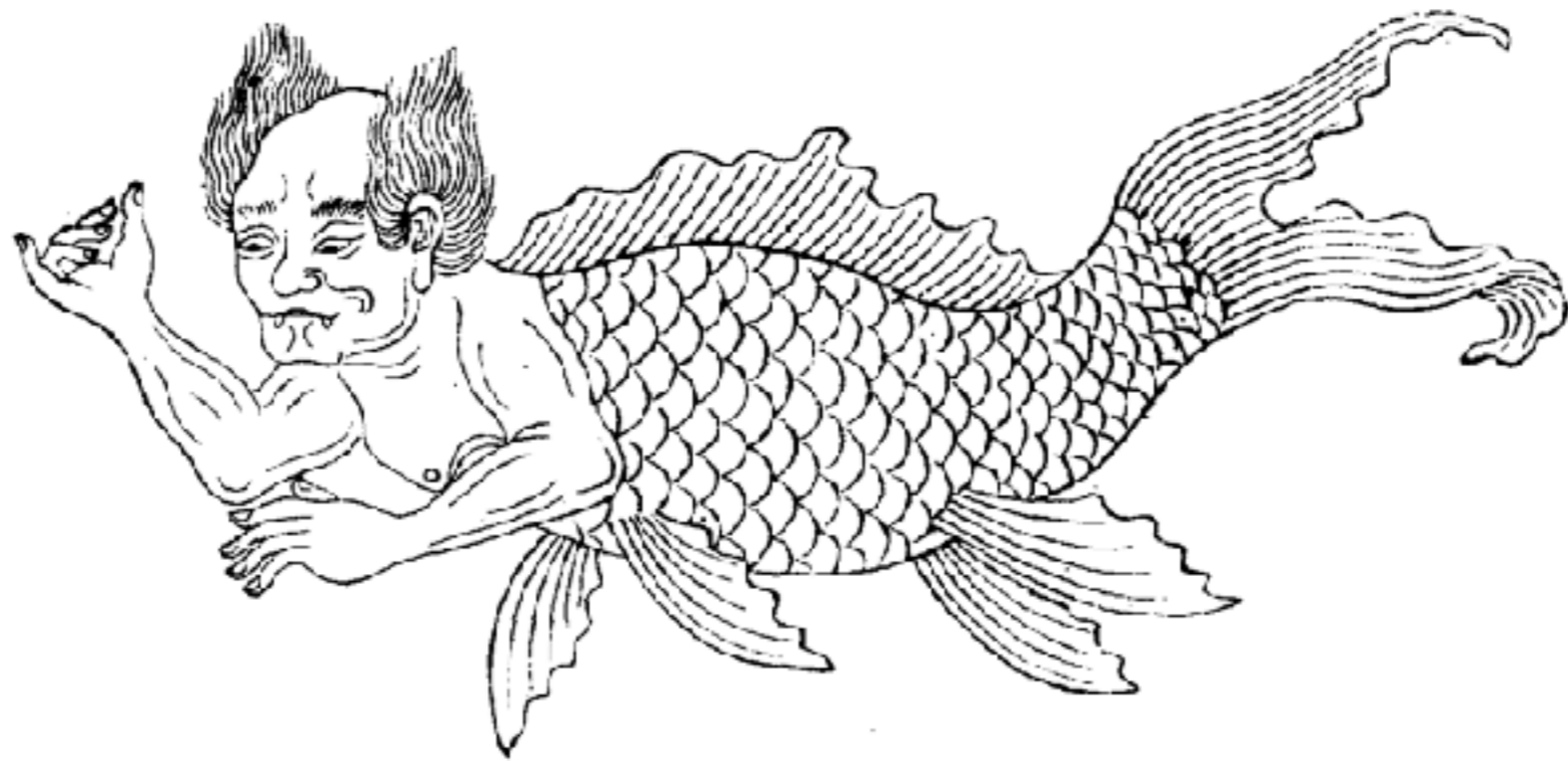
Part 4. Gains

global
local: two case studies

Language as an organism

- languages are entities that are alive and in constant flux
- language attrition and language death are natural outcomes of the life cycle of languages
- a language gets endangered when its speakers use it in an increasingly reduced number of communicative domains, and cease to pass it on from one generation to the next
- language attrition and language death have occurred time and again throughout history

氏人國



The Dī 氏 language

- *Shuōwén Jiězì* 《说文解字》 [Explaining graphs for interpreting written words] (Xǔ Shèn 许慎, beg. of the 2 century)

- 「絳」 (13A, 14b), *bēng*, MC *pjiengH*, OC **peng-s*

氏人殊縷布也，從系，並聲。 a type of ragged cloth of the Dī

- 「紕」 (13A, 14b), *pī*, MC *pjiijX/bjin*, OC **bij-s* / **bit-s*, **bin*

氏人縑也，從系，比聲。 a type of down fabric of the Dī

	Sūn et al. (1991)	Dài et Huáng (1992)
Yí 彝语 (Nánhuá 南華)	p ^h io ³¹	p ^h io ³¹
Burmese (Yǎngguāng 仰光)	peʔ ⁴⁴	peʔ ⁴
Záiwǎ 载瓦语	p̄an ⁵⁵	p̄an ⁵⁵
Làngsù 浪速语	pəŋ ³⁵	pəŋ ³⁵
Bōlā 波拉语		p̄ɛ̃ ³⁵
Lèqī 勒期语		p̄an ³³

Words for 'cloth' in Lolo-Burmese languages : Sun et al. *Zàngmiányǔ Yǔyīn hé Cíhuì* (1991) and Dài & Huáng *Zàngmián Yǔzú Yǔyán Cíhuì* par Dài et Huáng (1992)



FIGURE 18 Tangut *Jeweled Repentance of Emperor Liang*, National Library of China

Shi Jinbo (translated by Li Hansong). 2020. *Tangut Language and Manuscripts: An Introduction*. Leiden/Boston: Brill.

侗	阮	悝	穰	纒	韮	慨	駭	纒	甯	覯	覯	逢
<i>thjɿ²</i>	<i>we²</i>	<i>·u²</i>	<i>tja¹</i>	<i>yu¹</i>	<i>khjwi¹</i>	<i>mji¹</i>	<i>le²</i>	<i>bjuu²</i>	<i>dju¹</i>	<i>mji¹</i>	<i>djiɿ²</i>	
this	city	in	TOP	head	cut	NEG	fear	general	there	is	but	

覯	纒	穰	纒
<i>yiow¹</i>	<i>bjuu²</i>	<i>tja¹</i>	<i>mjiɿ¹</i>
surrender	general	TOP	not exist

‘In this city there are generals who are not afraid of being beheaded, but no generals who will surrender.’

Language endangerment

- approximately 6,000 and 7,000 languages in the world
- over 97% of the world's population speak only 4% of the world's languages; and conversely, 96% of the world's languages are spoken by only 3% of the world's population
- at least 50% of the world's languages are losing speakers
- in most world regions, about 90% of the languages may be replaced by dominant languages by the end of the 21st century

<https://ich.unesco.org/doc/src/00120-EN.pdf>

Why is linguistic diversity important?

- each language provides pieces of evidence for understanding patterns in the structure and function of human language and human prehistory
- each language helps to better understand the extent and limits of linguistic diversity
- each language is a unique expression of the human experience of the world, so that the knowledge of any single language may be the key to answering fundamental questions of the future

Initiatives

- since the 1990s the crisis of linguistic diversity has been the subject of growing interest from linguists and the public (e.g. Dorian 1989; Dixon 1997; Grenoble and Whaley 1998, 2006; Crystal 2000; Evans 2010)
- UNESCO Programme Safeguarding of Endangered Languages
 - UNESCO Ad Hoc Expert Group on Endangered Languages, “Language Vitality and Endangerment”, Paris, 10-12 March 2003
 - 2019 International Year of Indigenous Languages
 - 2022-2032: Indigenous language decade

Major Evaluative Factors of Language Vitality

Intergenerational Language Transmission

Absolute Number of Speakers

Proportion of Speakers within the Total Population

Trends in Existing Language Domains

Response to New Domains and Media

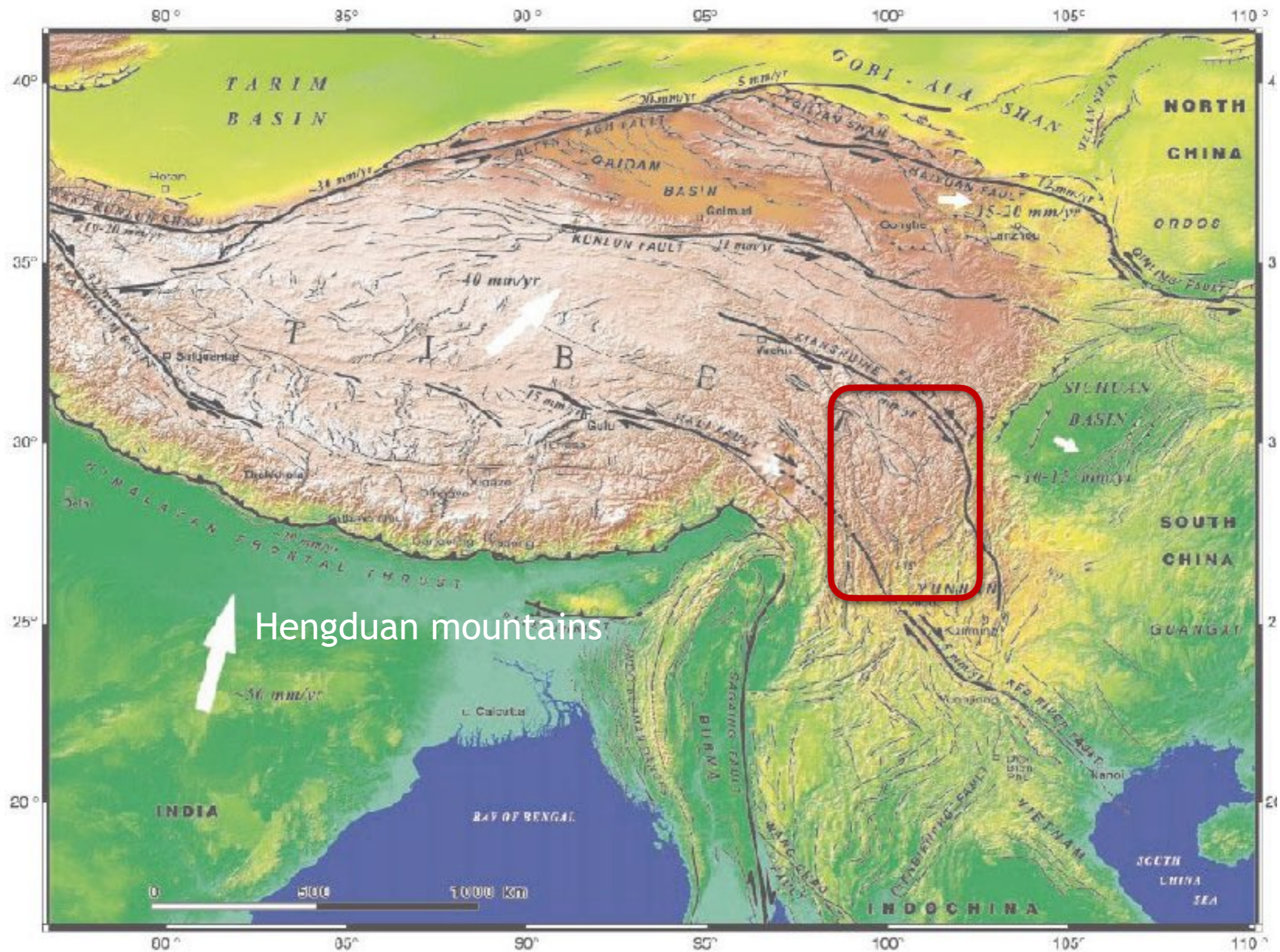
Materials for Language Education and Literacy

Governmental and Institutional Language Attitudes And Policies

Community Members' Attitudes toward Their Own Language

Amount and Quality of Documentation

Southwest China



(Tapponnier et al. 2001, Science)

Sino-Tibetan

Tibeto-Burman

Chinese

Kamarupan
NE India,
W Burma

Baic
SW China (Yunnan)

**Northern
Mandarin**
SW Mandarin

Karenic
Burma, Thailand

Himalayish
Tibet, Nepal,
Bhutan, Sikkim

Lolo-Burmese-Naxi
SW China, Burma,
Thailand, Laos, Vietnam

Central
Wu, Xiang,
Gan, Hakka

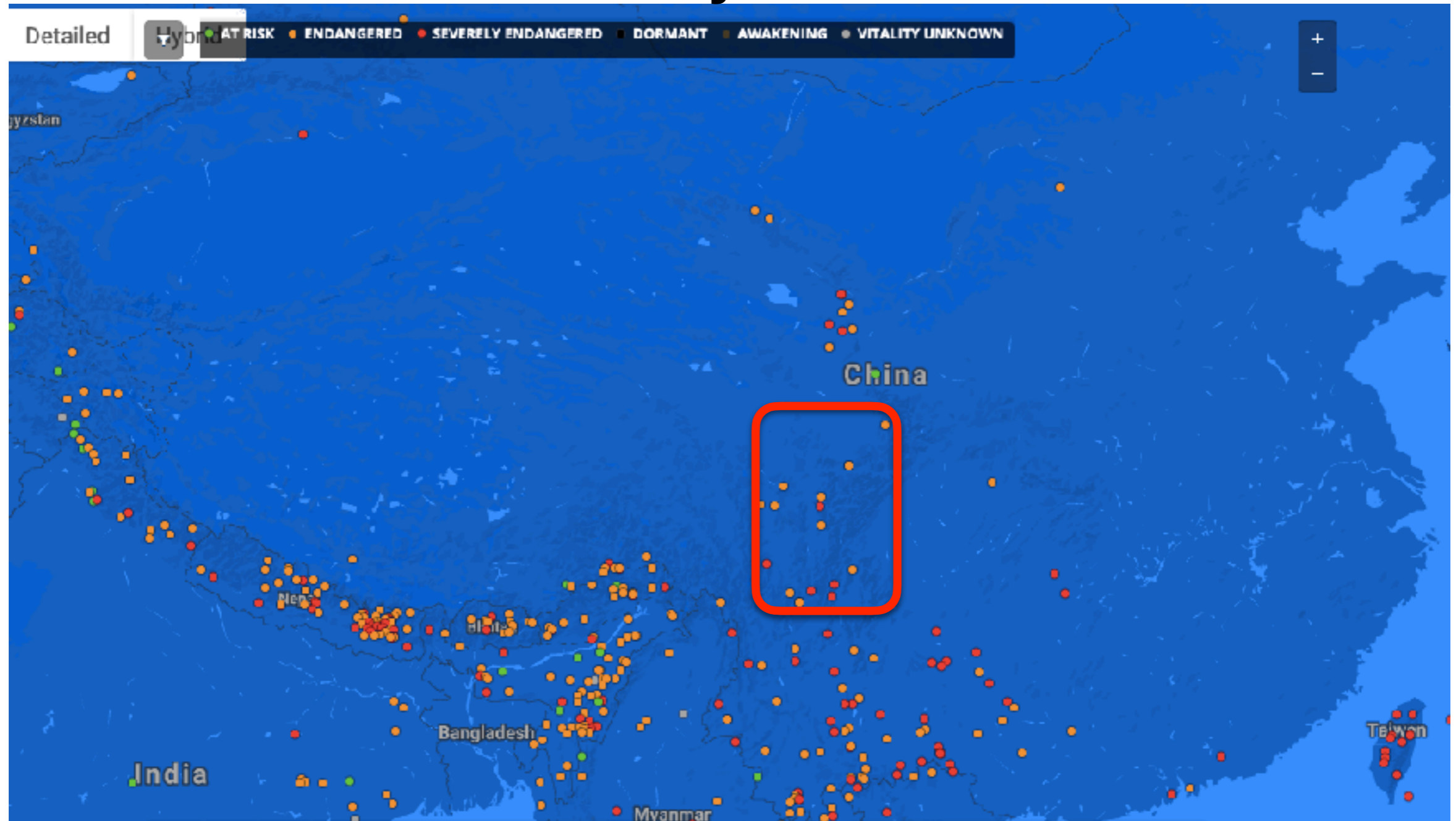
Qiangic
SW China
(Sichuan, Yunnan)

Jingpho-Nungish-Luish
N Burma, SW China (Yunnan)

Southern
Yue, Min

Based on: Matisoff, James A. 2003. The Handbook of Proto-Tibeto-Burman: System and Philosophy of Sino-Tibetan Reconstruction. Berkeley: University of California Press, 5.

Endangered Languages Project



<https://www.endangeredlanguages.com>

China

Baima

Souther Qiang

Zhaba

Queyu

Nyagrong Minyag

Lama

Shixing

Shuhi

Pumi

Lizu

Horpa

Guiqiong

Muya

Ersu

Duoxu

Namuyi

Tazhi



Baima 白马 pé





Shuhi

书亨

śúhǐ

Lizu
里汝

lízú





Ersu
尔苏
ḗsý

Duoxu

多续

do³³ ɕu³³



Factor	Baima	Shuhi	Lizu	Ersu	Duoxu
Intergenerational Language Transmission	yes	yes	yes	yes	no
Absolute Number of Speakers	~7000	~1500	~5000	~8000	9 (~4-5)
Amount and Quality of Documentation	inadequate	inadequate	inadequate	inadequate	un- documented

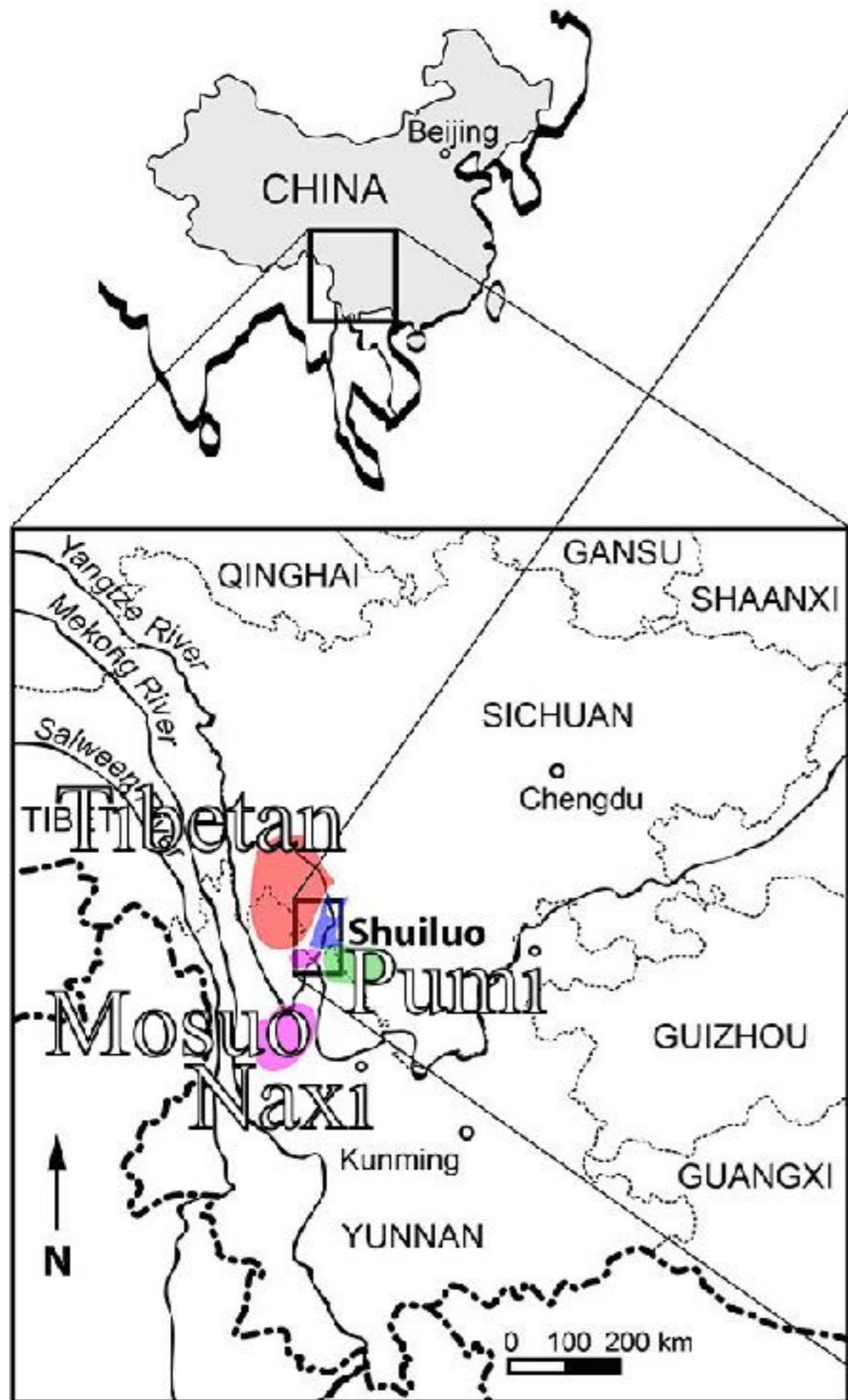
Challenges

unwritten languages

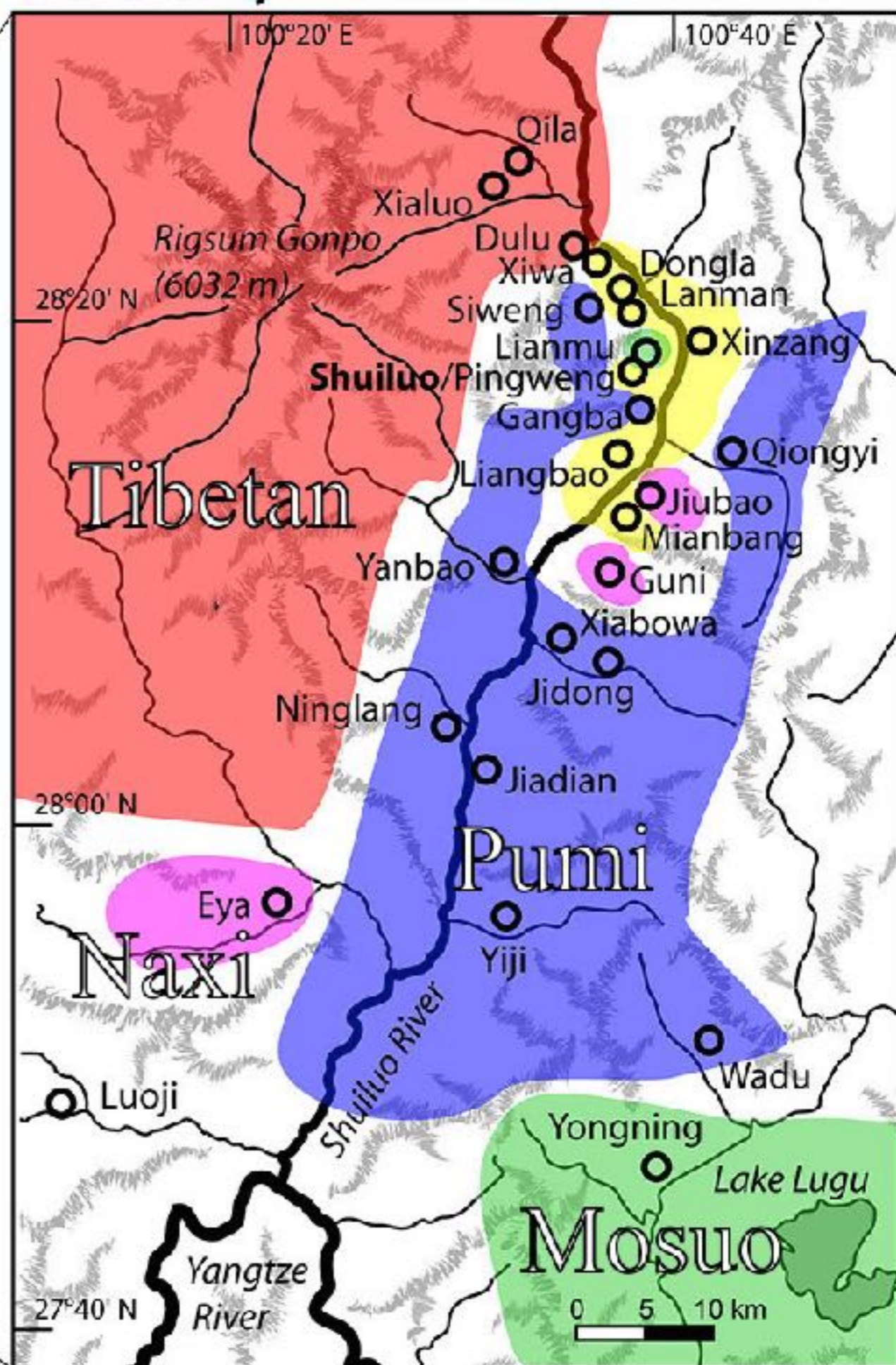
lack of previous attestation and documentation

variation and variability
(language-internal, across closely related languages)

multilingualism and language contact



Shuiluo Valley



Challenges

unwritten languages

lack of previous attestation and documentation

variation and variability

(language-internal, across closely related languages)

multilingualism and language contact

areal features, which cut across genetic boundaries

lack of appropriate methodology

(multilingualism, language contact, language comparison)

Gains

- discovery of previously unreported features and configurations of features
- a better understanding of the extent and limits of linguistic diversity
- a better understanding of patterns in the structure and function of human language
- a better understanding of principles and mechanisms of language change and language history

Ersu-Lizu-Duoxu, Shuxi

- Ersu and Xumi: Comparative and Cross-Varietal Documentation of Highly Endangered Languages of South-West China (2013-2017)
- funded by the Endangered Languages Documentation Programme (ELDP)
- audio, video, text, and image files of the project are deposited with the Endangered Languages Archive (elararchive.org)



Language-internal variation

[ba⁵³] 'tired' vs. [pa⁵³] 'arrive'

[go³¹] 'cold' vs. [ko³¹] 'early'

[pa⁵³] 'tired; arrive'; [ko³¹] 'cold; early'

[pa⁵³~ba⁵³] 'tired; arrive'; [ko³¹~go³¹] 'cold; early'

Table 1. Consonant phonemes of Duoxu

	Bilabial		Labio-dental	Alveolar		Post-alveolar	Alveolo-palatal		Velar					
Plosive	p	p ^h	b		t	t ^h	d		k	k ^h	g			
			(Nb)				(Nd)				(Ng)			
Affricate					ts	ts ^h	dz	tʃ	tʃ ^h	dʒ	tɕ	tɕ ^h	dʑ	
Nasal		m				n				ɲ			ŋ	
Fricative			f		s	z	ʃ	ʒ	ɕ		ç		x	y
Approximant		w							j					
Lateral						l								

Table 2. Consonant phonemes of SW Mandarin (the dialect of Mùlǐ), based on Lǐ (2010:117–118)

	Bilabial		Labio-dental	Alveolar		Post-alveolar	Alveolo-palatal		Velar	
Plosive	p	p ^h		t	t ^h				k	k ^h
Affricate				ts	ts ^h	tʃ	tʃ ^h	tɕ	tɕ ^h	
Nasal		m		n				ɲ		ŋ
Fricative			f	s		ʃ	ʒ	ɕ		x
Lateral				l						

Language-internal variation

- distinction between /n/ and /l/ before all vowels

[nje³³] ‘year’ vs. [lje³³] ‘manure’

[nje³³] ‘year; manure’

[nje³³] ~ [lje³³] ‘year; manure’

Language-internal variation

- speakers who consistently make the largest overall number of phonological distinctions, also including those that do not exist in Southwestern Mandarin (conservative group)
- speakers who only make phonological distinctions that exist in Southwestern Mandarin (convergence group)
- speakers for whom the reduction of the overall number of phonological distinctions is not yet complete and who employ some distinctions that do not exist in Southwestern Mandarin in ways inappropriate for the more conservative variety of Duoxu (transitional group)

Earlier attestations

- a 740-word vocabulary list in the Sino-Tibetan vocabularies *Xīfān Yìyǔ* 《西番译语》 [Tibetan-Chinese bilingual glossary], recorded in Chinese and Tibetan transcriptions in the 18th century

འཕྲུལ་ལྟོགས་ཀྱི་རྒྱུ་	མཇུག་ལག་	ཤི་མེད་ལྟོགས་	ངག་འཇུག་
風 慢	有 雨	白 霜	雲 厚
墨刺果济	凹鞠拉	革至脚	甲 鞠
འཕྲུལ་ལྟོགས་ཀྱི་མཇུག་	མཇུག་ལག་འཇུག་	ཤི་མེད་ལྟོགས་	ངག་འཇུག་
風 寒	無 雨	黑 霜	雲 薄
墨刺凹	凹罵鞠	革糝脚	甲 拔

ལཾ་མ་དཔེན་	ནེ་མ་དཔེན་
月 出	日 出
良 麻 白	乃 麻 白

ལཾ་མ་ཐང་	ནེ་མ་ཐང་
月 落	日 落
良 麻 特	乃 麻 特

moon *lam ma*, Ersu ꜜá-p^hé, Lizu ꜜæ³³-p^he⁵³

sun *ne ma*, Ersu njò-má, Lizu ɲi³³-ma⁵³





Table 1. Consonant phonemes of Duoxu

	Bilabial		Labio-dental	Alveolar			Post-alveolar	Alveolo-palatal			Velar		
Plosive	p	p ^h	b (Nb)	t	t ^h	d (Nd)					k	k ^h	g (Ng)
Affricate				ts	ts ^h	dz	tʃ	tʃ ^h	dʒ	tɕ	tɕ ^h	dʑ	
Nasal			m		n						ɲ		ŋ
Fricative			f	s	z	ʃ	ʒ	ɕ	ʑ		x	y	
Approximant			w						j				
Lateral					l								

- Duoxu-Ersu-Lizu
 - Duoxu N | Ersu x | Lizu ḥ~N̊
 - Duoxu n | Ersu s | Lizu t~k

Gloss	Duoxu	Ersu	Lizu (Kala)	Lizu (Ga'er)
'be ripe'	mje ²²	xì, (dè-)xì	(dè-)hě	(da ³³ -)m̩e ⁴⁴
'bamboo'	mi ³³	xì	hě	m̩i ⁴⁴
'this year'	(tɕ ^h i ²² -)nje ³³	(ts ^h é-)xí	(ts ^h è-)hě	(ts ^h e ³³ -)h̩e ⁵⁵
'last year'	(ja ²² -)nje ³³	(já-)xí	(jǎ-)h̩e	(jǎ ³³ -)h̩e ⁵⁵
'next year'	(ʃəu ⁵³ -)nje ³³	(só-)xí	(só-)hě	(so ³³ -)h̩e ⁵⁵
'to borrow'	nje ³³	(k ^h è-)xì	(p ^h éŋgò) h̩è	(k ^h a ³¹ -)h̩e ⁴⁴
'younger sister'	na ³¹ (ma ⁵³)	xí(má)	h̩í(mǎe)	h̩e ³³ (mi ⁴⁴)

Table 3. The Ersu-Lizu-Duoxu correspondence pattern “x | h̩~N | N”

Gloss	Duoxu	Ersu	Lizu (Kala)	Lizu (Ga'er)
'heart'	nje ²² (ma ⁵³)	s̩z̩(ní)	tè(mí)	ke ³³ (mi ⁴⁴)
'nose'	nja ²² (ku ⁵³)	s̩y̩(Nb̩y̩)	tó(Nbù)	ke ³³ (m̩e ⁴⁴)
'snot'	nja ²² (ku ⁵³)	s̩y̩(k̩y̩)	təŋ(-ɿǎe)	kje ³³ (Nbɿa ⁴⁴)
'seven'	nje ²²	s̩z̩ŋ̩	təŋ	ki ⁵³

Table 4. The Ersu-Lizu-Duoxu correspondence pattern “s | t~k | n”

Correspondences with fricatives and nasals

Gloss	Duoxu	Ersu	Lizu (Kala)	Lizu (Ga'er)
	F	F	F	F
'walk'	ɕe ³³ -ɕe ³³	ʃ̣ɛ̣-ʃ̣ɛ̣	xú-xú	xu ³³ xu ⁵³
'long'	xe ³¹	ʃé	ʃè-ʃé	ʃæ ³¹ ʃæ ⁴⁴
	N	N	N	N
'fire'	mie ³¹	mè	mé	me ³⁵
'two'	ni ⁵³	né	nè	næ ³³ -bu ⁴⁴ , nuæ ²³
'day'	ne ³³	njó	ɲé	ne ²³

Fricative-nasal clusters

Gloss	Duoxu	Ersu	Lizu (Kala)	Lizu (Ga'er)	PTB
'be ripe, ripen'	mje ³¹	xì, (dè-)xì	(dè-)hě	(da ³³ -)m̩e ⁴⁴	*s-min
'bamboo'	mi ³³	xì	hě	m̩i ⁴⁴	*s-m(y)ik 'bamboo sprout'
'this year'	(tɕ ^h i ²² -)nje ³³	(ts ^h é-)xí,	(ts ^h è-)hě,	(ts ^h e ³³ -)hě ⁵⁵	*s-niŋ
'last year'	(ja ²² -)nje ³³	(já-)xí,	(jà-)hě,	(jæ ³³ -)hě ⁵⁵	
'next year'	(ʃəu ⁵³ -)nje ³³	(só-)xí	(só-)hě	(so ³³ -)hě ⁵⁵	
'to borrow'	nje ³³	(k ^h è-)xì	(p ^h éŋgò) hě	(k ^h a ³¹ -)hě ⁴⁴	*r/s-ŋ(y)a
'younger sister'	na ³¹ (ma ⁵³)	xí(má)	hí(mǎé)	hě ³³ (mi ⁴⁴)	*s-nam 'daughter-in-law'

Table 5. Cognate sets from Table 3 with the Ersu-Lizu-Duoxu correspondence pattern “x | x~N̥ | N”, where PTB cognate evidence supports the reconstruction of a fricative-nasal cluster and/or voiceless nasal

Gloss	Duoxu	Ersu	Lizu (Kala)	Lizu (Ga'er)	PTB
'heart'	nje ²² (ma ⁵³)	s̥z̥(ní)	tè(mí)	ke ³³ (mi ⁴⁴)	*s-niŋ
'nose'	nja ²² (ku ⁵³)	s̥ý(Nb̥ý)	tó(Nb̥ù)	ke ³³ (m̩e ⁴⁴)	*s-na
'snot'	nja ²² (ku ⁵³)	s̥ý(k̥ý)	təŋ(-ɿǎé)	kje ³³ (Nb̥ɿa ⁴⁴)	*s-nap
'seven'	nje ²²	s̥z̥ŋ	təŋ	ki ⁵³	*s-nis

Table 6. The Ersu-Lizu-Duoxu correspondence pattern “s | t~k | n” with PTB cognate evidence

Coarticulation

- the articulatory modification of a given speech sound arising from coproduction or overlap with neighboring sounds in the speech chain (e.g. Recasens 2018)
- fricative-nasal sequences
 - the antagonistic requirements of turbulence generation for the production of fricatives (a tightly closed velum to allow turbulent airflow in the oral tract) and that of nasals (a lowered velum to allow airflow through the nasal cavity)

Fricative-nasal sequences

- fricative weakening

anticipatory velopharyngeal opening for nasality during the acoustic duration of the fricative diminishes the oral pressure build-up behind the fricative constriction, and attenuates the amplitude of frication

anticipatory velopharyngeal opening for nasality and the sharing of a single laryngeal spreading gesture for the fricative and the nasal

- fricative strengthening

delayed velum lowering typically results in denasalization of the initial portion of the nasal

the delayed opening of the velic valve preserves frication, but the air accumulated behind the constriction causes a burst and an intervening stop or a vowel

Duoxu-Ersu-Lizu

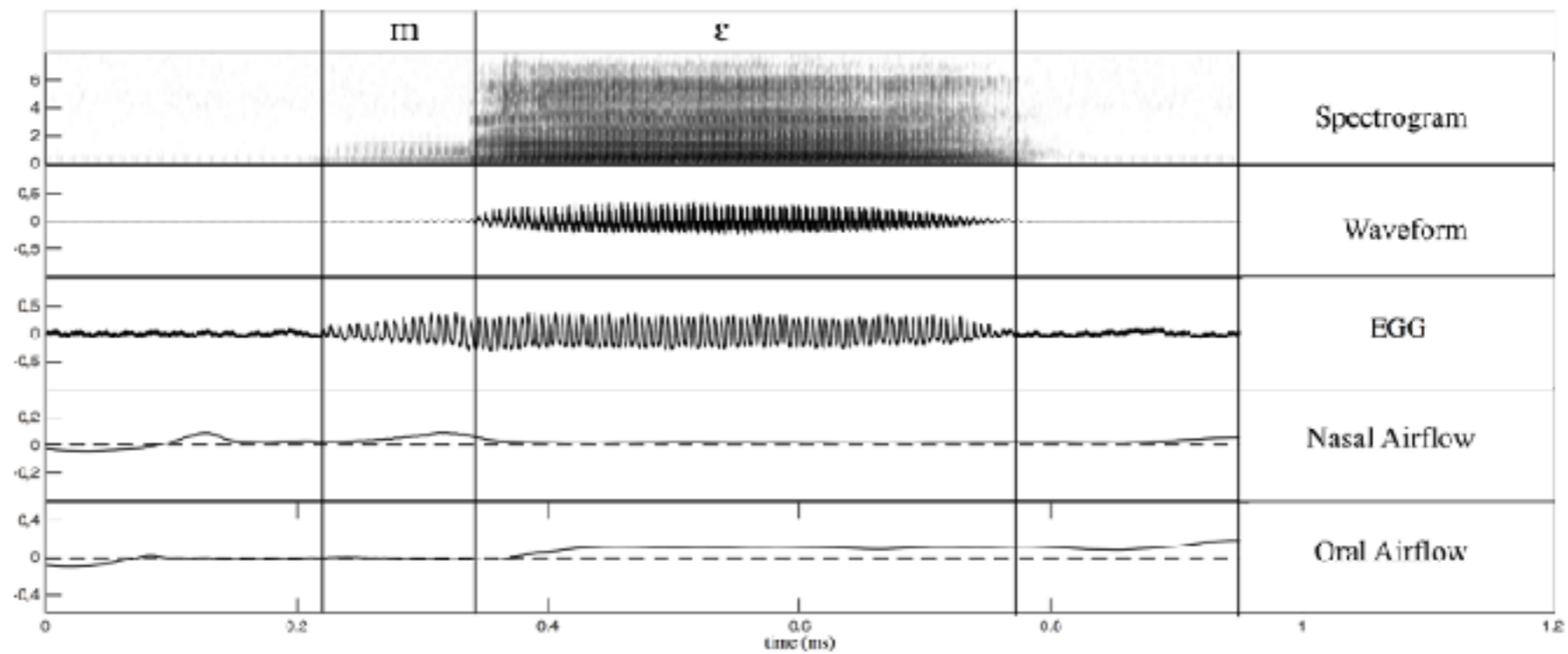
- *FN: variation across closely related languages
 - the degree to which coarticulatory changes are produced and perceived may vary from dialect to dialect, dialects may differ in gestural coordination in consonant sequences in terms of degrees of gestural overlap (Brownan & Goldstein 1991)
- fricative weakening:

loss of the original fricative in Duoxu: *FN > N (m n ŋ)
- fricative strengthening:

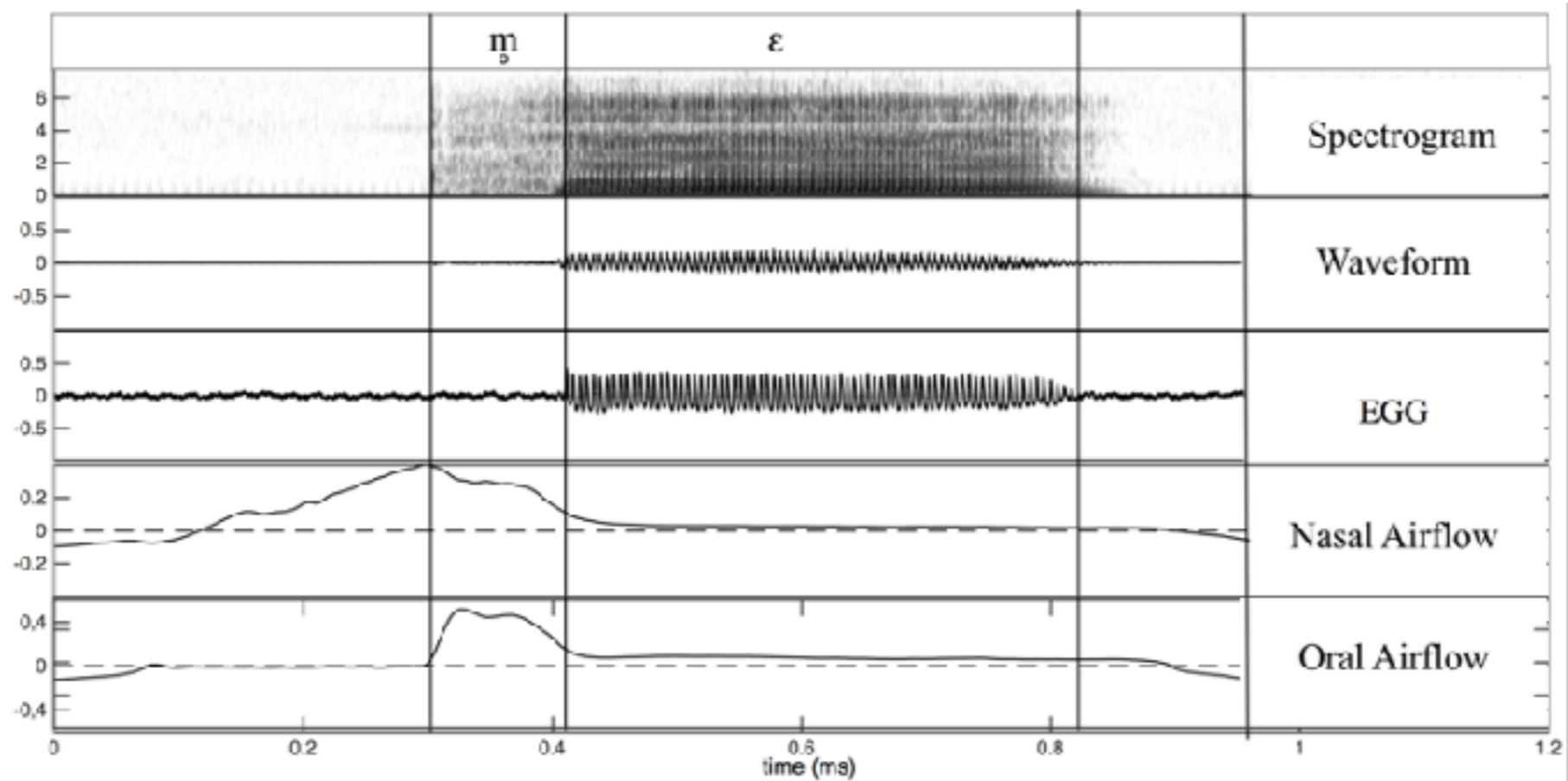
Lizu & Ersu: *F-n > *F-t > t ~ k | *F-n > s
- ??: Lizu & Ersu: *FN | N̥ (m̥ n̥ ŋ̥) ~ ã | x

N̥ and ĥ̃

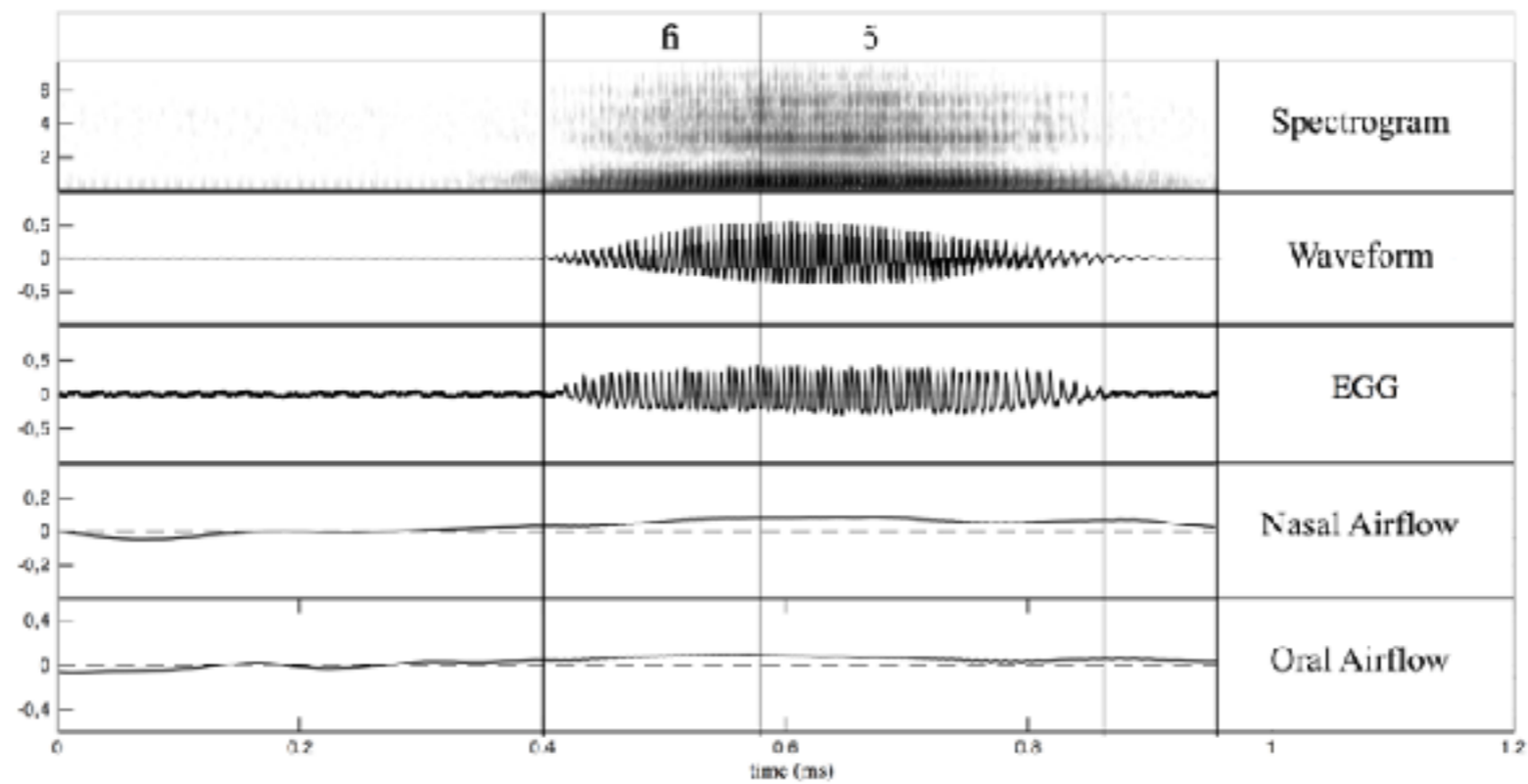
- voiceless nasal consonants are relatively uncommon in the world's languages
 - languages with voiceless nasals account for 2 to 3,5% of all languages in the Phoible database (Moran & McCloy 2019), a repository of cross-linguistic phonological inventory data in 2.186 languages
- voiceless nasal consonants are mostly found in languages of Southeast Asia (Tibeto-Burman, Hmong-Mien, Tai-Kadai, Mon-Khmer), and they appear to be particularly widely represented in Tibeto-Burman languages
- /ĥ̃/: a voiceless sound that is produced with an open glottis
 - this sound has been reported in a number of Lolo-Burmese, Naic, and Qiangic languages
- an instrumental description (acoustic and aerodynamic) of voiceless nasals and /ĥ̃/ in Shuhi



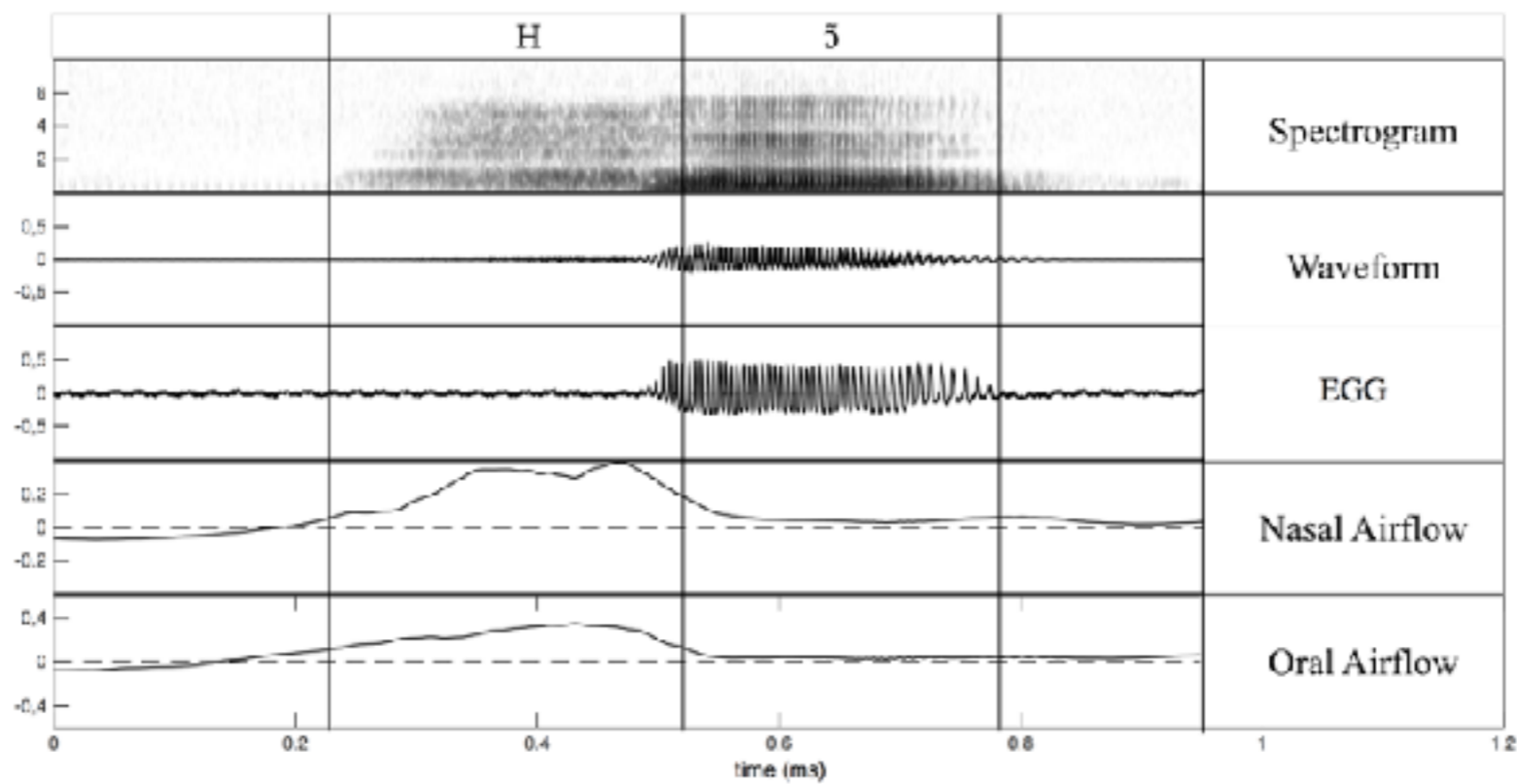
/mε⁵⁵/ 'bamboo'



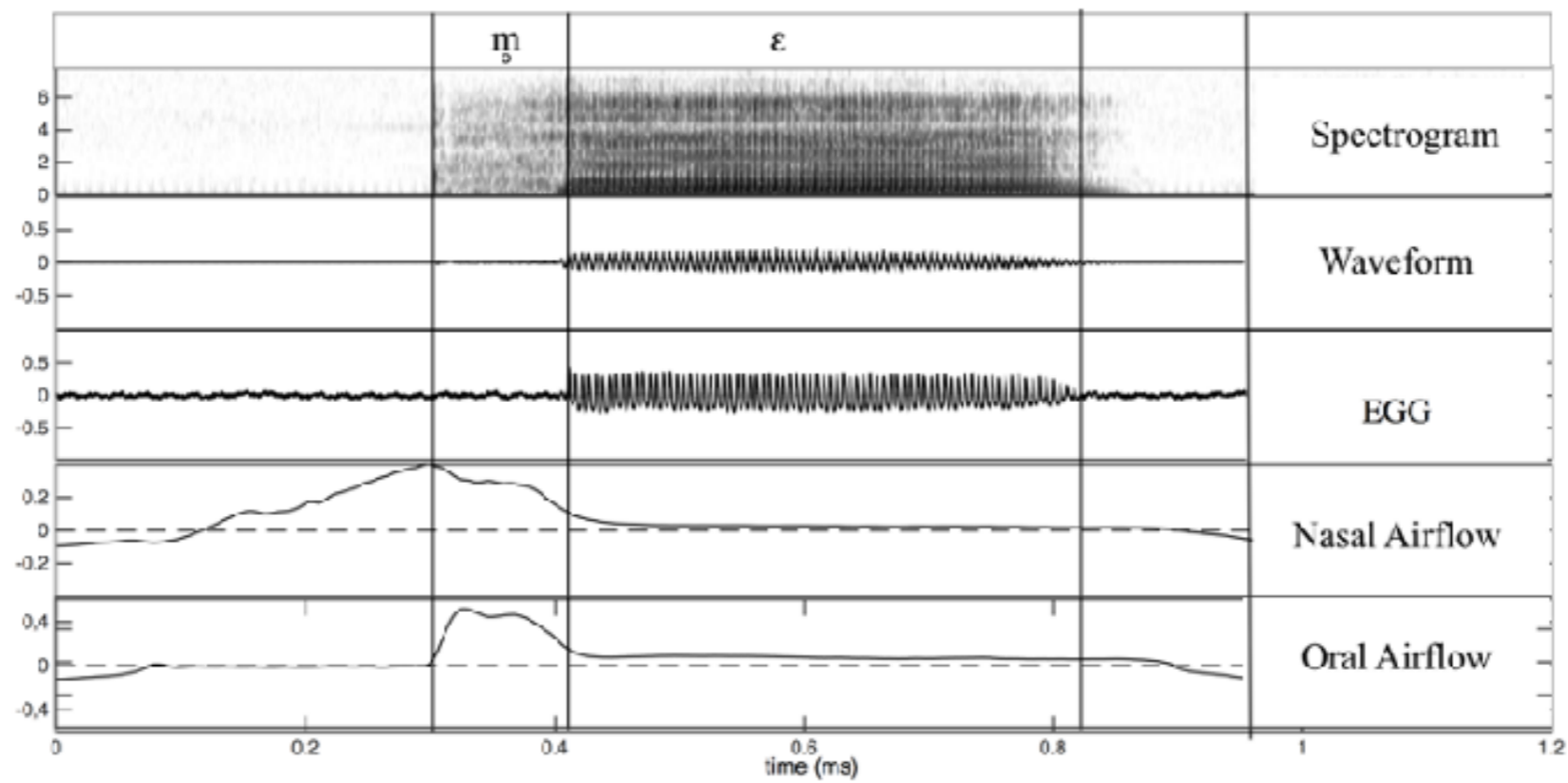
/m̥ε⁵⁵/ 'medicine'



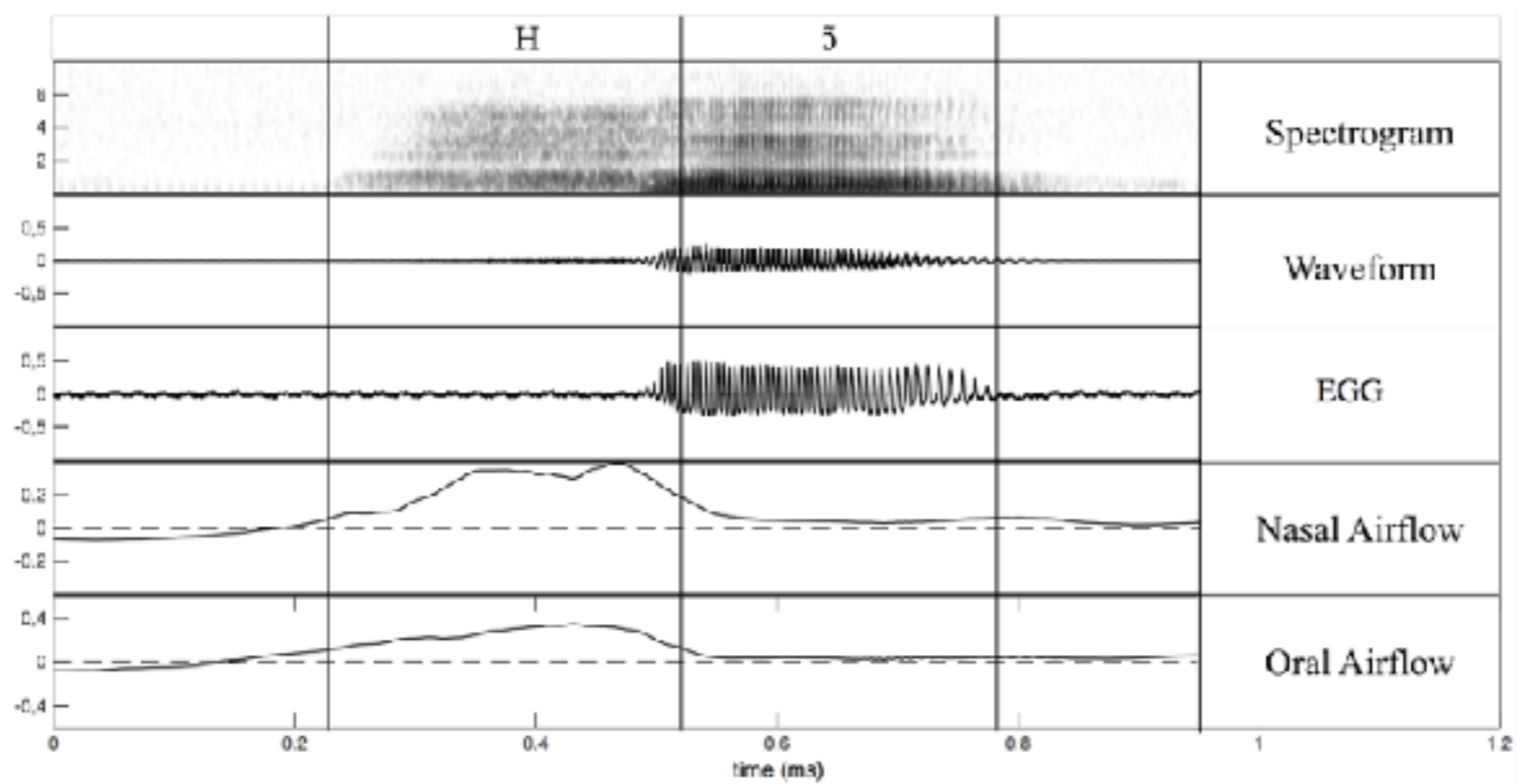
/ɤ̃⁵⁵/ 'dare'



/ɤ̃⁵⁵/ 'vegetable; to be deep'



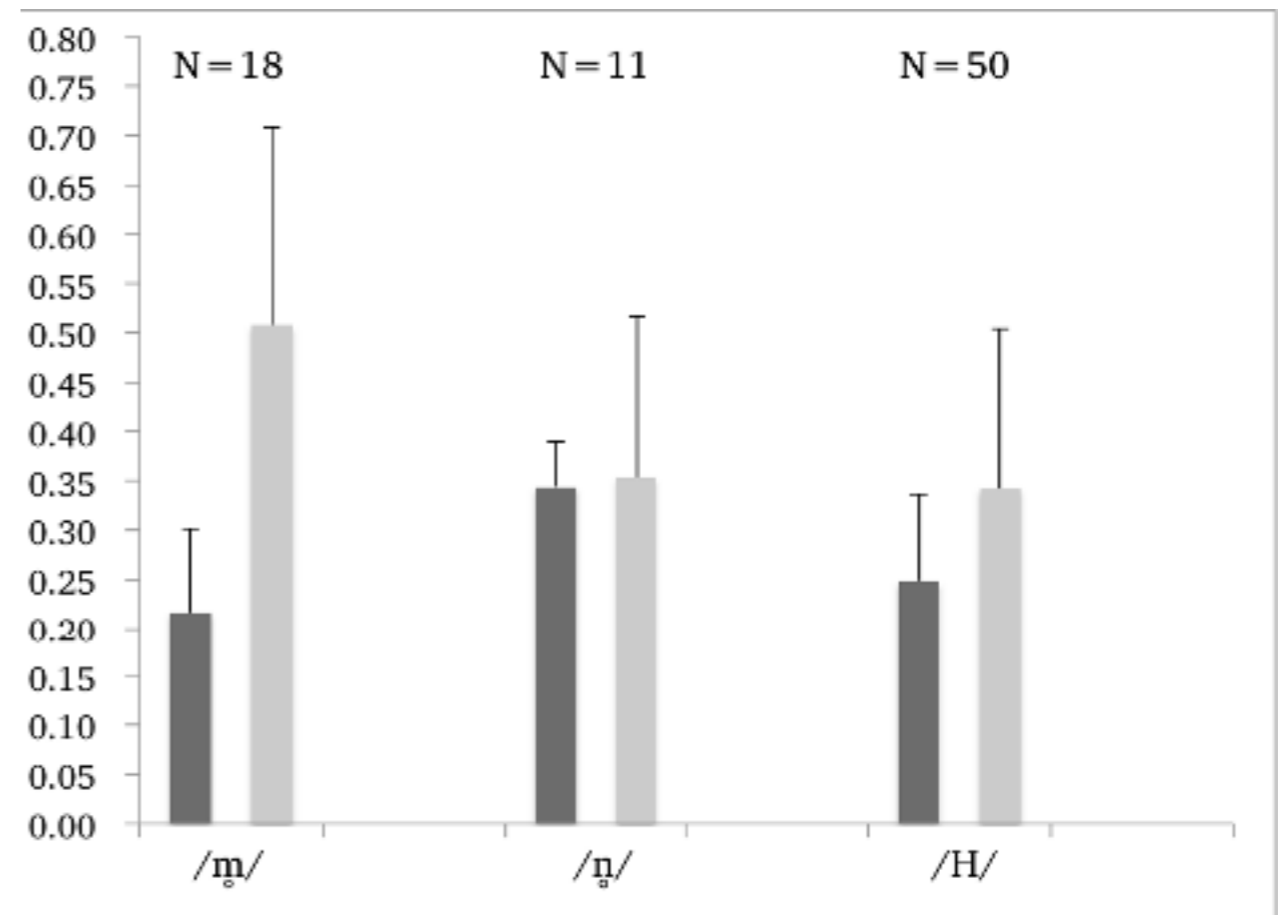
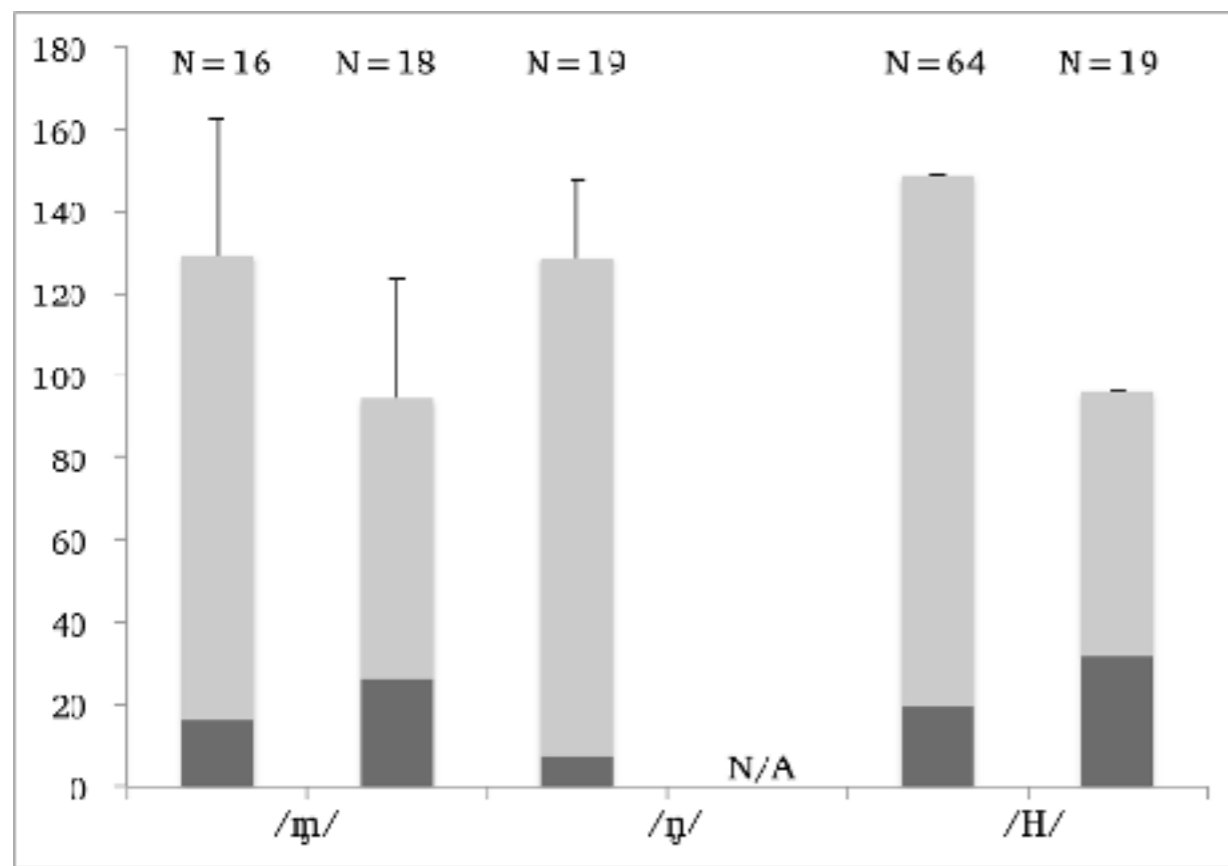
/m̥ε⁵⁵/ 'medicine'



/h̃ɔ⁵⁵/ 'vegetable; to be deep'

N̥ and ĥ

- in terms of duration, voicing rate, and elevated nasal and oral airflow rates, /ĥ/ are comparable to Shuhi /ṁ/ [ṁĥ̃] and /ṅ/ [ṅĥ̃]



Mean duration and voicing period (in ms, left) and nasal and oral airflow maxima (in dm³ per second, right) in /ṁ/, /ṅ/, and /ĥ/ in Shuhi

ŋ and ĥ

- one difference between the two types of segments ([ĥ] versus [ṁh] and [ṅh]) lies in the absence of an oral constriction in [ĥ]
- it has been hypothesized that when the period of oral constriction is very brief and entirely devoiced (as in Shuhi [ṁh] and [ṅh]), cues for the place of articulation may become weakened. In perceptual terms, that could result in the failure on the part of the hearer to perceive place-of-articulation information in the signal, leaving the velic lowering gesture as the only remaining characteristic gesture of the sound

Nasal devoicing

• *FN | N̥ (ṁ ṅ ṇ) ~ ĥ | x → *FN > N̥ > ĥ > x

- Within the development of Lizu, we must first posit a period in which original fricative-nasal clusters began to devoice, giving rise to voiceless nasals. Devoicing proceeded until the closure period became too brief to be perceptually effective. The oral closure period then disappeared, leaving the velic lowering gesture as the only remaining gesture, resulting in a voiceless nasal glottal fricative
- Following the loss of allophonic nasalization of the vowel adjacent to the original nasal segment, the nasalization of the initial (/ĥ/) was likely reinterpreted in Ersu as an unintentional effect and no longer produced

[x] can be considered a realization of /h/; or the non-phonemic sound change [h] > [x] occurred; or that the separate existence of /x/ [x] in the phonological system “absorbed” [ĥ] once it lost its nasalization, causing a merger

Fricative strengthening

- *F-n > *F-t > t (> k); *F-n > s
 - In Lizu, the original fricative-nasal sequences give rise to a cluster with an epenthetic stop, which further simplifies to a stop. In Kala Lizu, the stop has the same place of articulation as the original nasal, as revealed by cognate forms in Duoxu with the alveolar nasal (that is, *F-n > *F-t > t), as in ‘nose’:
Duoxu /nja²²(ku⁵³)/, Kala Lizu tó(Nbù)
 - In Ersu, on the other hand, the original fricative-nasal sequences appear to retain the fricative part, strengthened by the addition of an epenthetic vowel, whereas the original nasal is lost, as in (lé)sý ‘finger’, sý(ký) ‘snot’

Coexistence of two pathways of change

- can be explained if we assume a different degree of cohesion among the two elements of the original fricative-nasal sequences
- a tighter cohesion between the fricative and nasal elements of the original sequence (or a closer temporal distance between the articulatory gestures for the fricative and nasal elements of the cluster) may result in coarticulatory overlap of velic and oral gestures, leading to fricative weakening and nasal devoicing (*FN > N̥ > ĥ > x)
- an increase in the temporal distance between the articulatory gestures for the fricative and nasal elements of the original sequence may result in a delayed velic lowering and oral closure for the nasal relative to the end of the fricative, leading to an epenthetic stop or a vowel (*F-n > *F-t > t > k or *F-n > s)

Coexistence of two pathways of change

- a tighter cohesion between the two elements of the cluster likely characterizes a fricative-nasal sequence when it is part of one syllable (specifically, occurs in the syllable-initial position)
- a looser cohesion between the two elements of the cluster likely characterizes a fricative-nasal sequence, when its constituent elements are located in adjacent syllables, making them adjacent segments with varying degrees of coarticulatory overlap. The latter situation would be more likely to arise if the fricative were part of a prefix, and the nasal were part of the root: *F-n

Gains

- our data contribute to a better understanding of voiceless nasals and /h̃/ as a type of sound
- our data shed light on the consecutive stages of nasal devoicing in natural languages, from nasal clusters to voiceless nasals to a voiceless nasal fricative to non-nasal fricatives, hence furthering of our understanding of synchronic and diachronic aspects of the development of fricative-nasal sequences
- the insights gained in regard to Tibeto-Burman languages may well be applicable to other languages and language families in which similar sounds and correspondence patterns are found, helping us to understand and reconstruct historical developments in those languages

Gains

- our data shed light on the language-specific word structure in the common ancestor of Duoxu, Ersu, Lizu
- different pathways of change taken by fricative-nasal sequences within one closely related language cluster provide additional insights into the morphological and syllabic structure of words with contiguous fricative-nasal sequences at particular points in time
- different pathways of change followed by individual languages may have some diagnostic value in relation to subgrouping at higher-level nodes on the Tibeto-Burman family tree

Summary

Endangered Tibeto-Burman languages of Southwest China

successful research is possible

gains are numerous

situation is urgent

something for you?



More Information?

visit

www.katia-chirkova.info