

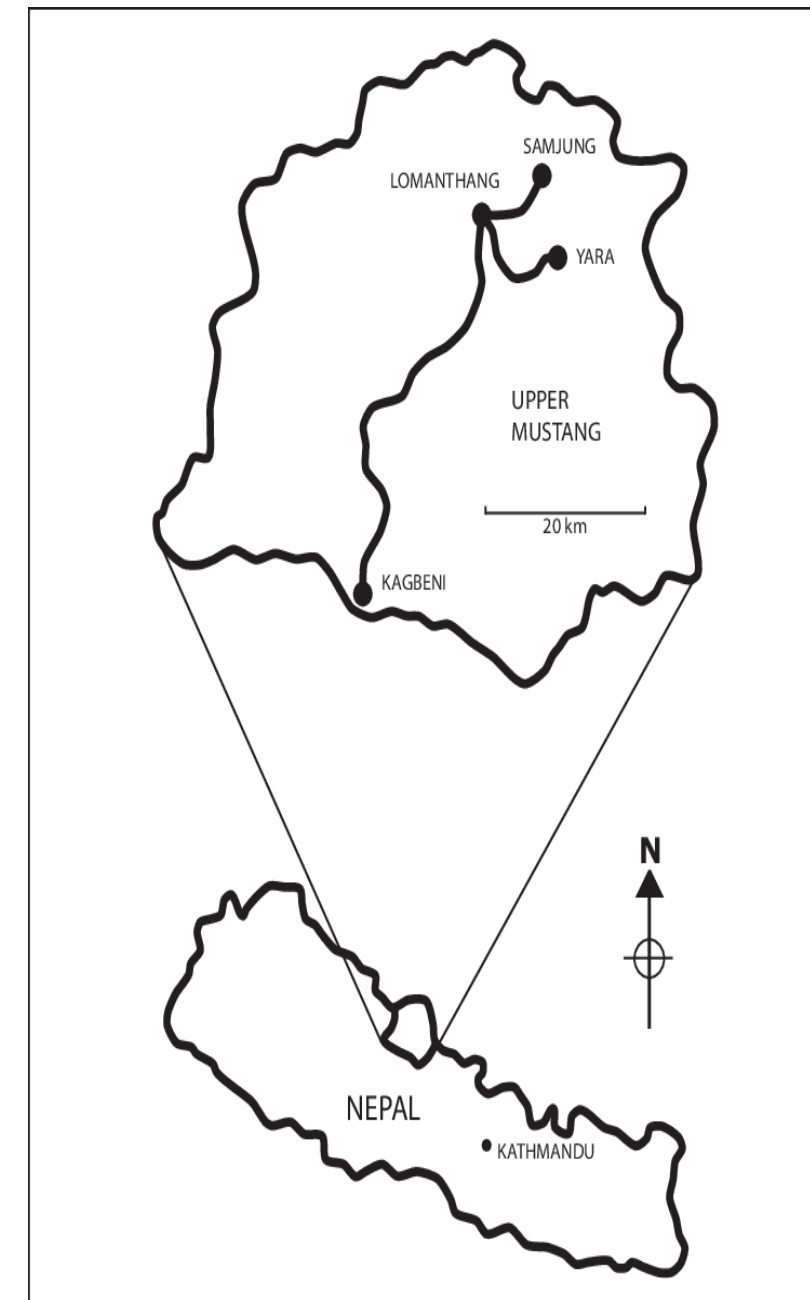


A Preliminary Phonological Analysis of Lowa (loy)

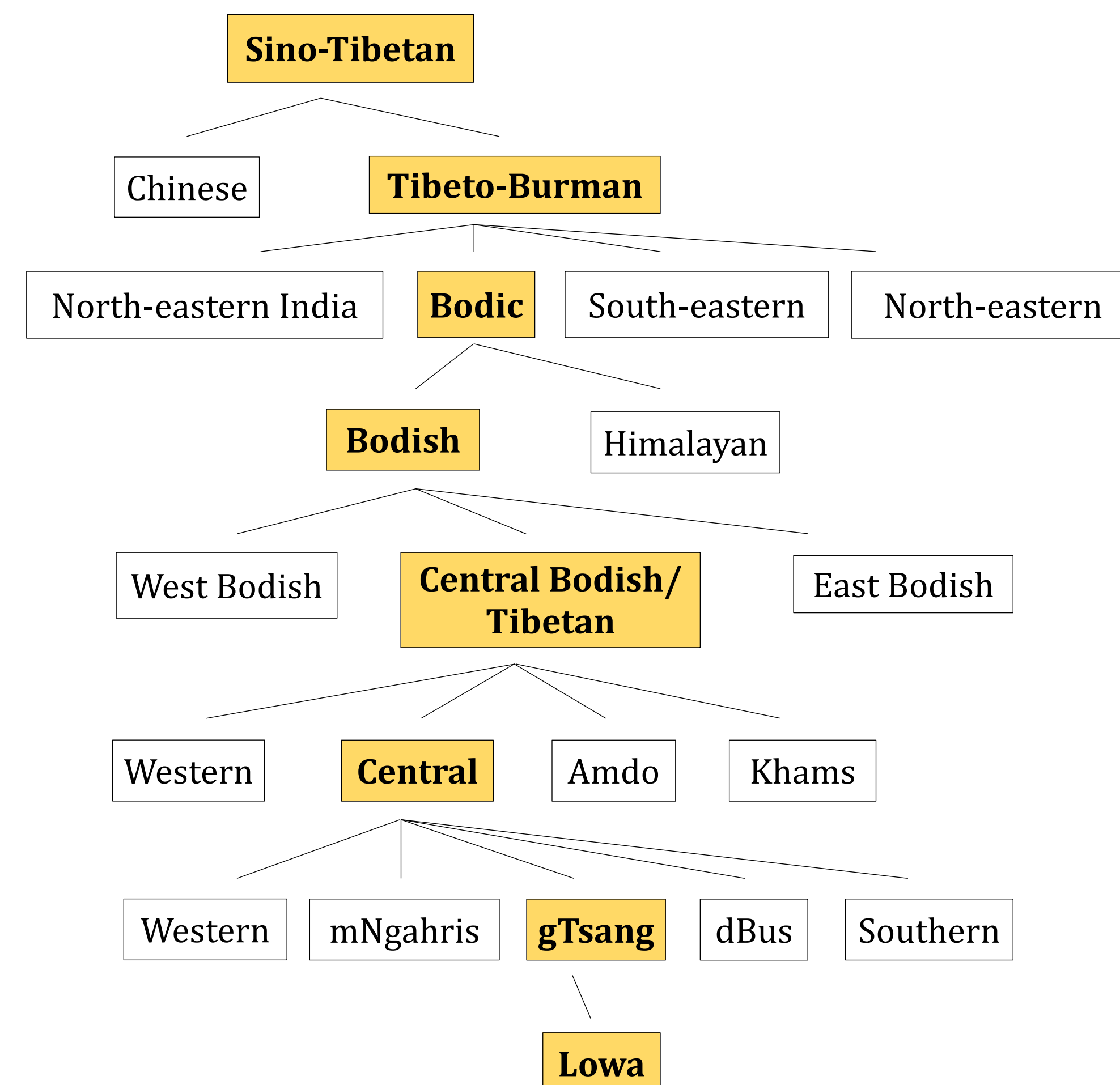
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Background



Lowa (loy) is spoken in the Upper Mustang District of Nepal.



Lowa is a Tibeto-Burman language in the Bodish branch.

Methodology

1200-word Wordlist

- two mother-tongue language consultants
- each entry elicited four times in citation and once in two different frames
 - frames had target word sentence-initially and sentence-medially
- data for each entry includes:
 - reference number
 - English gloss
 - IPA transcription
 - Lowa spelling in Devanagari and Tibetan script

Key Software Used

- Audacity – split and organize sound files
- Praat – acoustic analysis and initial transcription
- Phonology Assistant – phonetic parsing to aid in phonological analysis

Data on Related Languages

- gTsang family – Mugom, Dolpo, Sherpa, Lhomi
- dBus family – Lhasa Tibetan
- Southern family – Dzongkha, Denjongka

Consonants

	Bilabial	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Glottal
Plosive	p p ^h	b b ^h	t t ^h	d d ^h		k k ^h	g g ^h (?)
Affricate		ts ts ^h	dz dz ^h	tʃ tʃ ^h	dʒ dʒ ^h		
Fricative		(β)	s s ^h	(z)	ʃ ʃ ^h	(x)	(ɣ) h
Nasal	m		n		(ɲ)	ŋ	
Approximant		ɭ ɭ ^h	l r		j		w

Consonant Phoneme Inventory

Four-way Obstruent Phonation Contrast

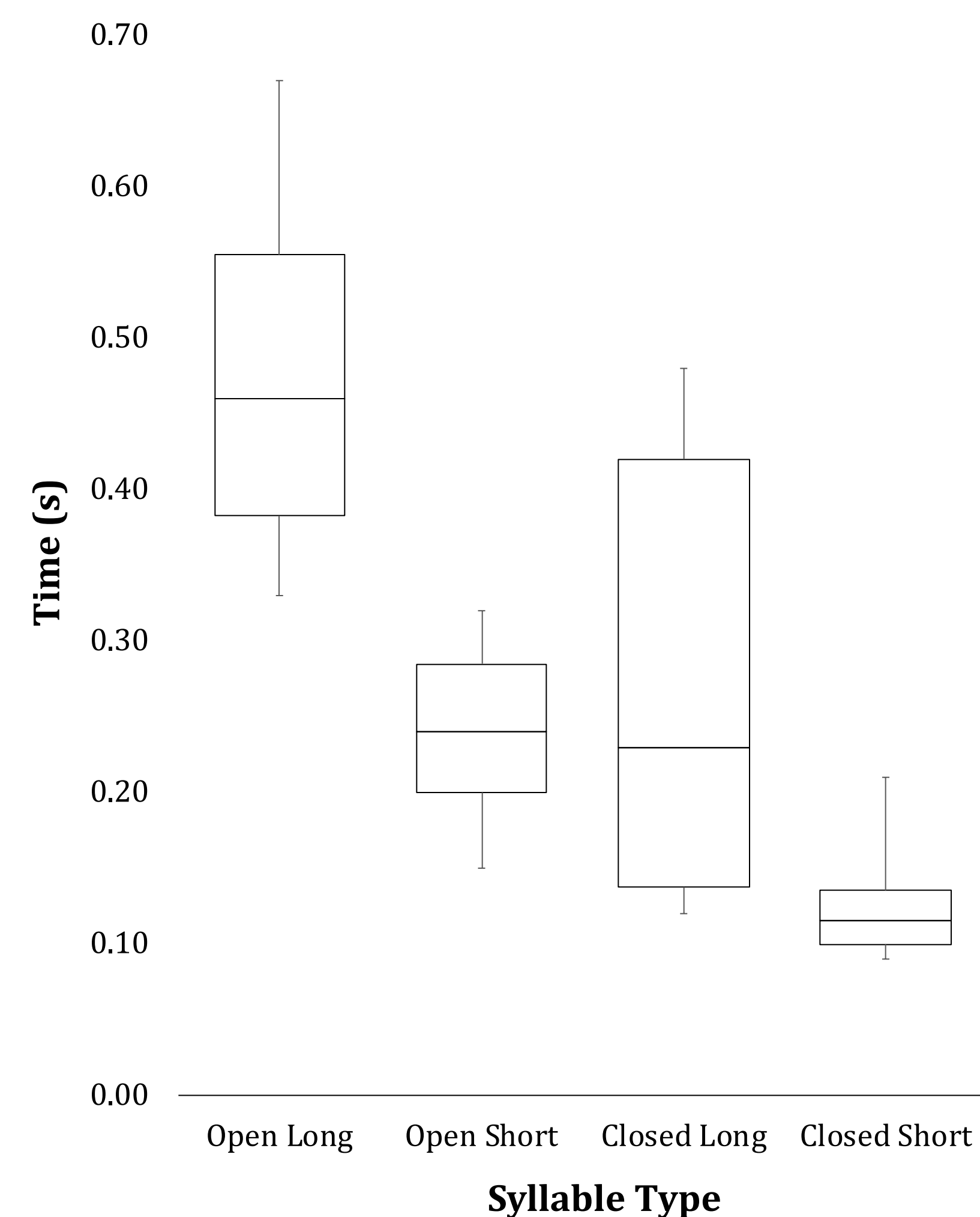
Key Characteristic:

- voiceless unaspirated**
 - high register
 - /p, t, t, k/
- voiced**
 - low register
 - voiceless, light aspiration
 - /p', t', t', k'/
- voiceless aspirated**
 - high register
 - /p^h, t^h, t^h, k^h/
- prevoiced**
 - low register
 - voicing before obstruent articulation
 - /b, d, d, g/

Vowels

	Front		Central		Back	
	Unrounded	Rounded	Unrounded	Rounded	Unrounded	Rounded
Close	i	y				u
Mid	e	ø				o
Open				ɐ		

Vowel Phoneme Inventory



Vowel Length Contrast

- Box-and-whisker plots to the left represent the vowel lengths of a selection of open and closed monosyllabic words.
- In order to statistically demonstrate a phonemic contrast, the values should not overlap between long and short syllables within respective syllable types.
- While plots do demonstrate some overlap in outlier tokens, **they support a phonemic contrast for vowel length on the open and closed monosyllable.**

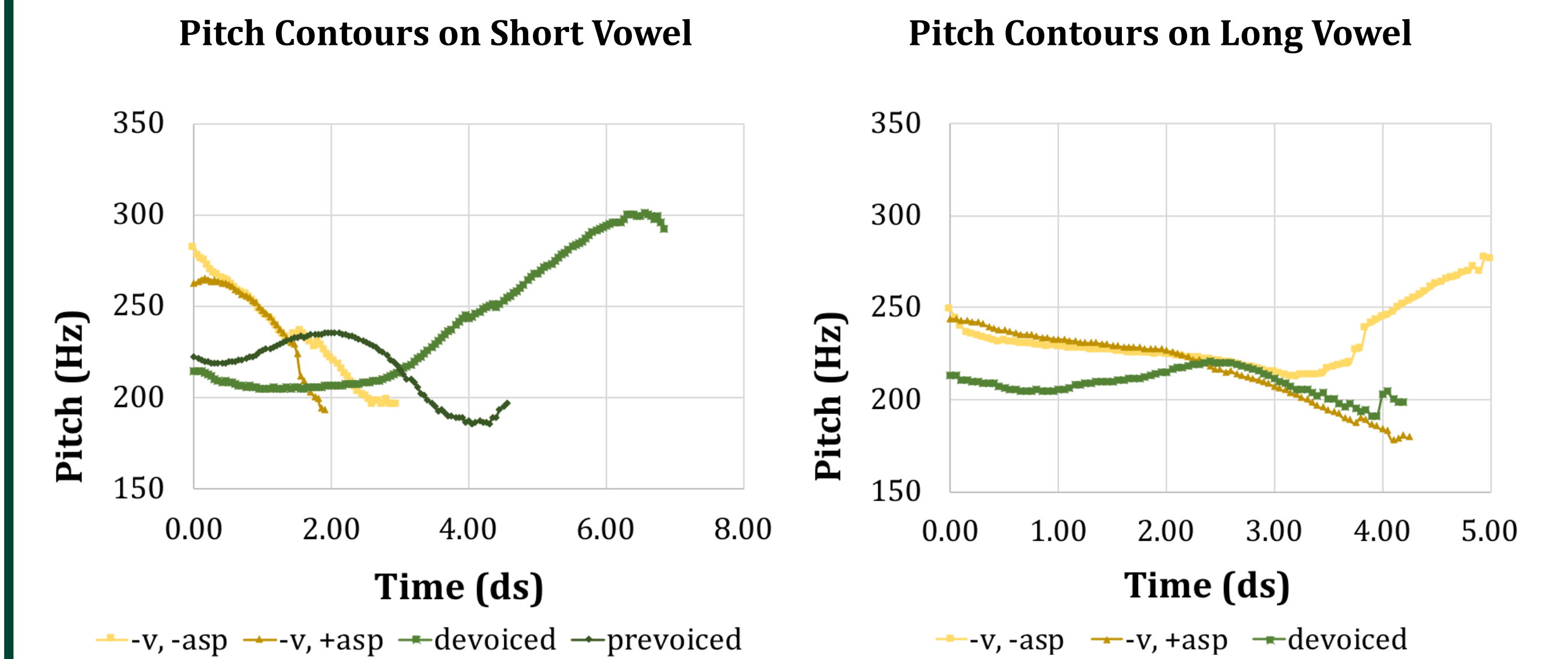
Register

What is Register?

Register is a term commonly used by Tibetanists to refer to the series of concomitant suprasegmental features outlined generally below:

Features	High Register	Low Register
voice quality	modal voice	breathy voice
pitch	high pitch	low pitch
obstruent phonation type	-v, -asp and -v, +asp	devoiced and prevoiced
onset aspiration	heavy aspiration	weak aspiration

The charts below demonstrate the high/low pitch contrasts for open, monosyllabic words with short and long vowels.



Application

Lowa is written in Devanagari orthography, and comparison of this analysis with the current orthography has revealed some areas for improvement.

Vowel Length Marking

The words to the right have been statistically demonstrated to be contrastive for vowel length; however, they are spelled identically.

English Gloss	IPA	Devanagari
'peak'	[tse:ʔ]	चे
'point (n)'	[tseʋ]	चे
'color'	[ts ^h ø:ʔ]	छो
'ripe'	[ts ^h øʋ]	छो
'grass'	[tse:ʔ]	चा
'nerve'	[tseʋ]	चा

Vowel length is currently unmarked in Lowa.

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