

TENSE AND LAX VOWELS IN THE LAHU DIALECT OF YUNSHAN: A LABORATORY PHONOLOGICAL STUDY


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ABSTRACT

A controversy exists regarding whether there are tense-lax vowels in Lahu and whether tense-lax phonation should be accorded phonological status, an issue that is closely related to the physiological movement of the larynx. This study presents an experimental analysis of the acoustic features of the Lahu dialect of Yunshan, using electroglottography to collect acoustic and physiological data and employing VoiceSauce and Eggworks to extract glottal features to explore laryngeal mode of motion. The study demonstrates a distinct tense-lax phonation contrast in Yunshan Lahu, which is characterized by multiple types of phonation, differences between front and back parts of tense vowels, and equal importance of tense-lax contrast and vowel length. To contribute to a systematic description of Tibeto-Burman language, this paper proposes to treat tense-lax contrast as the main feature in phonological induction, using length as its accompanying feature for explanation. From the perspective of the path of historical evolution, tenseness comes from the loss of plosive codas, and is also closely related to voiced, aspirated initials. In the process of transforming tense-lax features to tones, tense vowels retained their features of tenseness as a result of falling tones.

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KEYWORDS

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1. INTRODUCTION

Lahu is a Loloish language of the Tibeto-Burman family¹, which exhibits a close correlation between tense-lax phonation and tonal features. There are a number of controversies in the analysis of Lahu phonology, in particular concerning whether the tense versus lax contrast should be granted phonological status and concerning the relationships among this phonation contrast, tones, and checked syllables. Matisoff describes the Lahu variety spoken in Chiang Mai (Thailand) as having seven distinctive tones, five on opened syllables and two on checked syllables. He describes the checked tones as consisting of a tone plus glottal stop (i.e., $\hat{?}$ as high-checked, $\`?$ as low-checked); he also represents the checked tone values numerically linked by tie bars (i.e., $\overline{54}$ and $\overline{21}$) (Matisoff 1973: 22). He writes that “there is no mechanical way to decide whether a syllable-final [?] in a given Lolo-Burmese language is better to be regarded as a final consonant or as a tonal feature”. Offering comparisons with other Lolo-Burmese in Southeast Asia, he proposes that final glottal stop feature and laryngeal constriction on the vowel (e.g., in Hani) exist along a “continuum of consonanticity” (Matisoff 1973: 25). In his proposed Lahu orthography (Matisoff 1984), there is no discussion of laryngeal features. Gai (2001) directly puts forward that there are no tense vowels in Lahu. Other scholars, such as Dai (1979), believe that a tense-lax contrast can be established for Lahu vowels and mark tenseness by underlining the vowel in question. There is also research that explores the acoustics of the tense-lax features, finding that the so-called tense and lax vowels of Lahu is essentially a phonation contrast (Zhu et al. 2011). Does the tense-lax contrast indeed exist, and if it does, should it be accorded phonemic status in the analysis of Lahu phonology? Questions of this kind are not only related to vowel quality and phonation, but also to methodologies on how such problems are to be dealt with in phonology.

The Lahu language spoken in China can be divided into two major dialect groups, Lahu Na 拉祜纳 and Lahu Xi 拉祜熙, the former

云山拉祜语松紧元音的实验音系学研究

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摘要

拉祜语是否有松紧元音区别,如果有,其区别是从什么因素演变而来、是否具有音位地位,这是一直存有争议的问题,也是一个与喉部运动模式相关的问题。本研究使用电子声门仪对中国云南省云山拉祜语进行声学 and 声门信号采集,使用 VoiceSauce 和 Eggworks 软件进行喉部声带运动模式分析。研究证明,云山拉祜语在发声态上有清晰的松紧对立,其特点为松紧包含多种发声态、紧元音前段和后段间有差异,以及松紧-音长并重。考虑到藏缅语描写的系统性,本文赞成以松紧作为音系归纳中的主要特征、长短作为其伴随特征进行说明。从历史演变路径看,紧特征来源于促韵尾的丢失,在演变中与浊音、送气音声母关系密切。在松紧向声调系统性过渡过程中,降调有利于紧特征的保留。

关键词

拉祜语 松紧元音 量化统计 声带运动模式 实验音系学