

VARIATIONS OF LARYNGEAL FEATURES IN JIANCHUAN BAI

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ABSTRACT

The tonal system in Jianchuan Bai has attracted much attention for its complex combinations of pitch and phonation type. In this paper,¹ based on EGG signals, three parameters, namely F0, Open Quotient (OQ) and Speed Quotient (SQ), are extracted to examine the tonal quality. It is found that there are two non-modal phonation types, Harsh and Pressed, and roughly four groups of pitch pattern (31/31/41; 33/433; 55/54; 35) in the eight tonal categories. One pair of tones can only be distinguished from each other by phonation type since their pitches are the same. As for other pairs, both pitch and phonation type may contribute to the distinction between them. Notably, non-modal phonation types vary across different Bai speakers. For a particular non-modal tone, one speaker may employ harsh voice, while another may use pressed voice. Sometimes, the non-modal phonation type even changed within a syllable. It is then suggested that different strategies may be used to produce non-modal tones in contrast with their modal counterpart. Moreover, based on the Bai data, how to define different phonation types based on the three basic parameters, F0, OQ and SQ, is discussed. Harsh voice is a better term for the type with the laryngeal features [Middle falling F0, -OQ, -SQ] rather than high-pitched voice.

SUBJECT KEYWORDS

Jianchuan Bai EGG Phonation type Tone

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劍川白語的嗓音變異

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提要

劍川白語的聲調系統中音高與發聲類型的配合關係複雜，很引人注目。本文基於電聲門信號，提取基頻、開商和速度商三個參數來探討聲調的性質。在八個調類中，有兩種特殊發聲類型-刺耳音和緊喉音。按音高可以大致分為4組，即31/31/41; 33/433; 55/54; 35。其中有一對音高完全相同，只能根據發聲類型的不同來區分調類。至於其他對，音高和發聲類型都可能對區分有貢獻。值得注意的是，特殊發聲類型在不同發音人中有變異。某種特殊發聲類型，一個白語發音人可能用刺耳音，而另一個可能發緊喉音。有時，特殊發聲類型可能在一個音節內發生轉換。這說明不同的發音人可能運用不同的發聲策略來與相對的普通發聲調類構成區別。論文根據白語進一步探討了如何根據基頻、開商和速度商這三個基本參數來定義發聲類型的種類。對於白語中具有中降調、低開商和低速度商的特殊發聲類型而言，刺耳音或許是比高音調嗓音更合適的術語。

主題詞

劍川白語 電聲門信號 發聲類型 聲調

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