

THE ROLE OF
PHONATION CUES IN MANDARIN TONAL PERCEPTION

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ABSTRACT

This study investigates the role of phonation cues in perceiving Mandarin tones in isolated syllables.¹ Mandarin tones have been previously reported to be sufficiently identified by F0 contour, while phonation cues are redundant. This study provides evidence to show that native Mandarin speakers are sensitive to phonation cues in identifying the four mandarin tones in isolated syllables. Moreover, Mandarin Tone 3 more strongly relies on phonation cues in its identification than the other three tones, which probably derives from the usual accompanying non-modal voice (creaky voice) in Tone 3 production. These results thus indicate the need to define language tones in a finer model that incorporates detailed phonation parameters.

SUBJECT KEYWORDS

**Tone perception Tone identification Mandarin Chinese Phonation
F0 contour**

發聲信息在漢語四聲感知中的作用

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提要

本文調查了發聲信息在漢語單音節四聲感知中的作用。以往研究中認為基頻 (F0) 足以感知漢語四聲，而發聲信息是冗餘信息，不影響漢語四聲的感知。本文的研究提供證據表明漢語母語者在四聲感知中利用了聲調的發聲信息。尤其對於在發音中常常伴有緊喉嚨音 (Creaky voice) 的漢語上聲音節，發聲信息被用於識別漢語上聲的效果更為顯著。本文的研究也說明有必要建立包含詳細發聲參數的聲調模型。

主題詞

聲調感知 聲調識別 漢語 發聲 基頻

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