

Tonal Initial Curvature Affects Fine-grained Lexical Tone Perception of Mandarin but not Cantonese

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While the tonal initial curvature (*Wāntóu* in Mandarin), a short curving portion at the onset of a pitch contour in tone languages, has been found inconsequential for distinguishing lexical tones, little is known about the role of this portion in fine-grained tone perception. To address this issue, the current study examined categorisation in 20 Mandarin and 19 Cantonese speakers using two tone continua (/i/ varying from Tone 1 to Tone 2): one continuum was synthesised based on the level tone with initial curvature; the other was based on the one without it. Participants were required to identify lexical tones. Results of Mandarin speakers revealed that tonal initial curvature shifted the labelling boundary towards the rising tone, suggesting the initial curvature may affect fine-grained tone perception. However, this effect was absent in the Cantonese group, indicating the effect of tonal initial curvature might be subject to the complexity of the tone system and different phonetic composition.