



Processing of Endpoint Pitch in Mandarin Tone Perception: An Eye Movement Study

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ABSTRACT

The existing literature suggests that native Mandarin speakers can identify lexical tones given only small segments of sound (syllable onset and offset). Using a combination of low onset pitch and either low or high offset pitch, the present study examined how on-line tone perception of Tones 2 and 3 by native speakers of Mandarin, as measured by eye movement data, was influenced by the pitch height of the tone at onset and offset. Participants listened to manipulated tone tokens and selected the corresponding word from four visually presented characters. An EyelinkII eye tracker recorded their eye movements during the entire procedure. The results showed that 90% of final tone judgments were made according to the cue of offset pitch, with high offset pitch as a cue for Tone 2 and low offset pitch as a cue of Tone 3. Low onset pitch served as a cue for Tone 3 and prompted more fixations on the word with Tone 3, until the offset pitches revealed the final tone choices and directed fixations to those words. This finding supports the view that pitch heights at tone onset and offset provide cues in the dynamic process of tone perception.

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Table 1. Tables should be centred

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