

The interaction between tone and prosodic focus in Mandarin Chinese

Ting Wang,¹ Jun Liu,^{2,3} Yong-hun Lee⁴ and Yong-cheol Lee³

¹ Tongji University | ² Liaocheng University | ³ Cheongju University |

⁴ Chungnam National University

This study characterized focused tones in Mandarin Chinese through a production experiment using phone number strings. The results revealed that, although phonation cues had little effect on any focused tone, prosodic cues exhibited various patterns of distribution. Duration played an important role for each focused tone, but intensity had a relatively less salient role. Among pitch-related parameters, the raising of pitch register was an important cue when a level tone (tone 1) was focused. By contrast, due to the interaction between tone and intonation, absolute slope and pitch range had less effect on tone 1 focus. These cues, however, were prominent when contour tones (tones 2 and 4) were in focus. Unlike other focused tones that raised pitch, tone 3 focus exhibited the opposite pattern, lowering its pitch target. In the aggregation of all focused tones, it was found that only primarily pitch-related parameters were selected as the main variables discriminating one from another. The results of this study, therefore, suggest that the prosodic marking of focus is not uniform, even within a single language, but clearly differs by tone type. Accordingly, prosodic marking of focus should be considered multimodal in a tonal language.

Keywords: prosody, corrective focus, tone, Mandarin Chinese, multimodal