Focus can be encoded via prosody in many languages either phonetically (i.e. via gradient variation in pitch/duration) or phonologically (e.g. via pitch accent placement, phrasing) (Chen, 2012 for review). Mandarin and (Seoul) Korean form a nice contrast in this respect. In Mandarin, the encoding of focus depends on the phonetic manipulation of pitch and duration (Xu, 1999). In Korean, phrasing has been widely considered as a typical focus-marking cue (Jun, 2006), while variation in pitch and duration (Lee & Xu, 2010) is used secondarily. Considering this difference between Mandarin and Korean, we hypothesised that Mandarin- and Korean-speaking children may differ in their mastery of phonetic focus-marking in terms of rate and manner.

To examine this hypothesis, we investigated (1) how 8-year-old Mandarin- and Korean-speaking children use pitch range and duration to distinguish focus from non-focus (effect of focus), (2) how they distinguish broad focus from narrow focus (effect of focal constituent size), and (3) how they distinguish contrastive focus from (non-contrastive) narrow focus (effect of contrastivity).

The Mandarin data were SVO sentences elicited from 8-year-olds (N = 4) as answers to wh-questions in a semi-spontaneous fashion through a picture matching game (Yang and Chen, 2014). Five focus conditions were included: narrow focus on the sentence-initial subject-noun (NF-i) sentence-medial verb (NF-m) and sentence final object-noun (NF-f), broad focus (BF), and contrastive focus on the sentence medial verb (CF-m). The verbs in four tones were acoustically annotated for pitch maximum, pitch minimum, and duration. Mixed-effects modelling was adopted to assess the effect of focus on pitch range and duration. The focused verbs (NF-m) were realised with a longer duration than identical verbs in the non-focus conditions (NF-i and NF-f) (p < .001 in both cases). A wider pitch range were used for focus (NF-m) than for non-focus (NF-i and NF-f) but only for the Tone 2 and Tone 4 verbs (p < .05 in all relevant models). Further, focus types differing in constituent size or contrastivity were not prosodically distinguished but focus types differing in both size and contrastivity were distinguished via pitch range. The Mandarin-speaking 8-year-olds are thus largely adult-like.

The Korean data were SOV sentences elicited from 8-year-olds (N = 8) in the same way as the Mandarin data (Yang et al, 2014). The sentence-medial object-nouns were acoustically annotated for pitch maximum, pitch minimum, and duration. Mixed-effects modelling showed that the children only used duration to distinguish the focused (NF-m) object-nouns from the post-focal (NF-i) ones (p < .05), and the object-nouns in contrastive focus (CF-m) from those in narrow focus (NF-m) (p < .05), different from Korean-speaking adults, who used pitch maximum and duration only to distinguish focus from non-focus (Yang et al. 2014).

To conclude, compared to their Mandarin-speaking peers, the Korean-speaking 8-year-olds used phonetic cues for focus-marking purposes to a limited degree, supporting our hypothesis. The use of duration in the 8-year-olds indicates that duration is mastered earlier than pitch in Korean. Such a sequential difference was not observed in Mandarin-speaking children (Yang and Chen 2014).
References


