Prosodic focus marking in minority L1 Bai-children learning Mandarin Chinese as L2

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Introduction: Sequential bilingualism in childhood has received much attention in recent years. For example, Golberg & Crago (2008) investigated lexical acquisition in child L2 learners of English, and Haznedar (2001) examined acquisition of English syntax in Mandarin Chinese-speaking children. However, to our knowledge, little is known about how children acquire the use of prosody in their L2. Prosody is a powerful communication tool. An important function of prosody is to highlight new information in a sentence (i.e. focus). Previous studies have shown that children learn to use prosody to mark focus in their L1 in stages (Chen 2011, Yang & Chen 2014a, Romøren & Chen 2014). The question that arises is thus how sequential-bilingual children acquire prosodic focus-marking. We addressed this question by examining 6- to 7-year-olds and 11- to 12-year-olds with Bai as L1 and Mandarin as L2 (school language). Bai, a tone language spoken by the Bai minority group in China, only exploits duration to mark focus (Liu et al. 2014), different from Mandarin, which uses both pitch and duration for this purpose (Xu 1999, Yang and Chen 2014b).

Bai 6- to 7-year-olds

Method: 377 SVO sentences were elicited as answers to wh-questions from five children in Mandarin via a picture matching game (Chen 2011). These sentences represented five focus conditions: narrow-focus on the subject-NP sentence-initially (NF-i), narrow-focus on the verb sentence-medially (NF-m), narrow-focus on the object-NP sentence-finally (NF-f), broad focus (BF) and contrastive-focus on the verb sentence-medially (CF-m). The verb in each sentence was acoustically annotated for pitch maximum, pitch minimum and duration using Praat (Boersma 2002)

Results: Linear Mixed-Effect Modeling was used to access the effect of focus on pitch and duration. It was found that the children realized the verbs in focus (NF-m) with a longer duration than identical verbs in the non-focus conditions (NF-i and NF-f) (p=0.035). Further, they did not vary prosody to distinguish verbs representing different focus types, i.e. NF-m vs. BF differing in scope, NF-m, vs. CF-m, differing in contrastivity.

Bai 11- to 12-year-olds

Method: 477 SVO sentences were elicited from six children using the afore-mentioned method.

Results: Linear Mixed-Effect Modeling revealed that these children differentiated focus from pre-focus (NF-i) via duration (p=0.047) and contrastive focus from non-contrastive focus via pitch range (p=0.026).

Conclusions: Our results show that acquisition of prosodic focus-marking is a gradual process in child L2. The 6- to 7-year-olds, who had one year of formal education in L2, could use duration, though not completely native-like, but not pitch to mark focus in Mandarin. The earlier use of duration may be explained by positive L1 transfer. The 11- to 12-year-olds, who had six years of formal education in L2, used both duration and pitch, though still not completely native-like, suggesting that they were aware of the use of pitch in Mandarin and making effort to get both cues under control. The finding that their use of pitch was first observed in expressing contrast is consistent with findings on children in L1( Chen, to appear, for review).
References:


