

One Falling and Two Rising in the Land of the Rising Sun: Overt and Covert Lexical Pitch Contrast in Tokyo Japanese Preschooler Speech

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Acquisition of a language with lexical pitch contrast is complex in that both lexical and non-lexical components of pitch contours should be learned (see Ota 2016 for review). In Tokyo Japanese (TJ), which features both lexical pitch accent and non-lexical tones, previous developmental studies have shown that the falling pitch contours involving a phrase-initial lexical accent such as *néko* ‘cat’, are developed earlier than the rising contours involving a phrase-initial non-lexical tone, such as *buta* ‘pig’ (Ota 2003; Ota et al. 2018 for a recent discussion), suggesting that lexical and non-lexical components of pitch contours are not uniformly developed. What has received little attention in previous studies is the development of the possible pitch contrast between the non-falling contours, namely, the contrast between no accent (e.g., *buta*, mentioned above) and final accent (e.g., *inú* ‘dog’), which is controversial in adult phonology; since both final- and non-accented words are realized with no pitch fall in utterance-final position, these two non-falling contours may or may not be distinguishable even for adults (Sugiyama 2012, Matsui and Hwang in press, for overview). This means that the contrast between final accent and no accent is largely neutralized in utterance-final position, or even if not neutralized completely, the contrast is covert, compared with typical contrasts such as the one between falling vs. non-falling. In what way do children develop this unusual type of contrast?

The current study enlarges upon previous developmental findings by investigating the contrast between final vs. no accent in utterance-final position, together with an initial accent, in the various developmental stages of TJ preschoolers. The speech materials were taken from the Japanese component of the Paidologos Corpus (Edwards et al. 2008), which contains approximately 80 children’s speeches produced in word-reading conditions. As a pilot study, the current study compared the production data of the youngest group (the 2-year-old; N=20) and the oldest group (the 5-year-old; N=19) cross-sectionally. One of the important findings is that some 5-year-old children distinguish final and no accent by F0 height while such a pattern is not clearly observed in the 2-year olds, suggesting that the covert contrast between two non-falling contours—if any—exhibits later than the contrast between falling contour and non-falling contour. Broader implications will be discussed further in terms of later acquisition of non-lexical phrasal tone (Ota 2003), multiple acoustic correlates of pitch accent (‘accentual boost’ Kubozono 1988) and universal tendencies of tonal acquisition (Ota 2016).

Selected references ||Edwards, J. and M. E. Beckman (2008). Methodological questions in studying consonant acquisition. *Clinical Linguistics and Phonetics*, 22(12): 937–956. ||Kubozono, H. (1988). *The Organization of Japanese Prosody*. Ph.D. dissertation, Edinburgh University. [Kurosio Publishers, 1993]. ||Matsui, M. and H. K. Hwang (in press). Final vs. no accent in interrogative melodies of Tokyo Japanese: Implications for tonal clash resolution. In J. Szpyra-Kozłowska and M. Radomski (eds.) *Phonetics and Phonology in Action*. Peter Lang: Frankfurt am Mein. ||Ota, M. (2003). The development of lexical pitch accent systems: An autosegmental analysis. *Canadian Journal of Linguistics/Revue Canadienne de Linguistique*, 48: 357–383. ||Ota, M. (2016). Prosodic Phenomena: Stress, tone, and intonation. In J. L. Lidz, W. Snyder, and J. Pater (eds.), *The Oxford Handbook of Developmental Linguistics*. ||Ota, M., N. Yamane and R. Mazuka (2018). The effects of lexical pitch accent on infant word recognition in Japanese. *Frontiers in Psychology*, 8: 2354. ||Sugiyama, Y. (2012). *The Production and Perception of Japanese Pitch Accent*. UK: Cambridge Scholars Publishing.