LI Aijun, SHI Rushen, ZHANG Zhao, The prosodic features of verbs and nouns in infant-directed Mandarin Chinese

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Abstract
Some grammatical categories in Mandarin Chinese, such as nouns and verbs and their classification, are assumed to differ from Indo-European languages. This paper, by analyzing the acoustic features of the infant-directed speech, aims to figure out whether prosodic distinctions exist between nouns and verbs, and to explore the acquisition of the nouns and verbs. In the experiment, homophonous nonsensical disyllabic words are embedded into noun phrases and verb phrases. Each homophonous disyllabic word is represented by two simply conjoining characters which originally represent verbs or nouns, such as dunjie 盾 (shield) 街 (street) vs. dunjie 炖 (stew) 揭 (uncover). Twenty Mandarin-speaking mothers are instructed to read the words and phrases to their infants, and the recordings are then analyzed acoustically. The result shows that the isolated verbs and nouns have no prosodic difference. However, when they are read in the noun phrases and verb phrases, the average F0 of the second syllable and the duration ratio between the first and second syllables are statistically different. The subsequent discrimination experiment indicates that 60 — 70% of verbs and nouns can be correctly discerned. The infants may classify the nouns and verbs with the help of the prosodic cues.

Key words: infant, language acquisition, grammatical category, prosodic feature, verb, noun