Prosodic Cues to Noun and Verb Categories in Infant-Directed Speech

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Abstract

This study tested the hypothesis that grammatical categories are distinguished by prosodic cues in input. Sentences in French were created containing disyllabic pseudo-words serving as both nouns and verbs. Factors influencing prosody (utterance positions, sentence length, content-function-word alternations, and prosodic phrasal grouping) were balanced. This design enabled us to not only consider how syntactically ambiguous words are categorized, but also examine in a reliable way whether distinct prosodic cues exist generally in the language for nouns and verbs. Parent-infant dyads participated in the study. Each mother read the sentences to her infant. Infants of two age groups were included, four months and 11 months, i.e., before versus at the onset of vocabulary learning. Acoustic analyses of the mothers' speech revealed that nouns and verbs were different in vowel duration patterns in speech to both ages. F0 patterns also differed for the two categories, but only in speech to older infants. These results indicate that nouns and verbs are prosodically marked in input, with cues stronger when infants begin to learn words and their categories. These prosodic cues may play a role in the initial categorization of nouns and verbs. The findings are discussed in the context of theoretical models of grammatical categorization.