Limits of variability in rhythm perception

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Abstract

Rhythm provides important cues for speech segmentation and lexical access, and it is a well-established finding that listeners make use of rhythm information during speech processing (Cutler, Dahan, & Donselaar, 1997). However, prosody in the speech signal is variable: First, it is subject to cross-linguistic variation. Moreover, it is acoustically highly variable, both within and between speakers. This raises the question of how listeners deal with this variability in language acquisition and speech perception. Are there determinants of stability in rhythm perception?

In this talk, I will present a series of rhythm perception experiments we have carried out with different populations (infants and adults, mono- and bilinguals, with or without (a risk for) developmental dyslexia) to explore these questions. Results of our studies suggest that there is individual variability in rhythm perception that relates to both external factors such as language experience, but also to internal factors such as musical acuity. Beyond this variability, we find consistency that can be explained if we assume an influence of universal biases (i.e., rhythmic principles such as the Iambic/Trochaic law and Stress Clash Avoidance).

I will discuss how the interaction of these determinants of variability and stability may influence the process of language acquisition and settle individuals' speech perception routines.

Bio

Natalie Boll-Avetisyan is Assistant Professor of Developmental Psycholinguistics at the University of Potsdam, Germany. She has been trained as a linguist at the Universities of Mainz, Germany, and Utrecht, the Netherlands, and received her PhD at Utrecht University in 2012. Since her postdoc years, she has been part of the Potsdam BabyLAB. Her main research interest is in studying the roles of universal abilities and experience in early language acquisition. She pursues a comparative psycholinguistics approach, and compares mono- and bilingually-raised infants learning different native languages.