Does musical experience modulate speech rhythm perception? Evidence from infants and adults

Natalie Boll-Avetisyan, Universität Potsdam

Language and music share many rhythmic properties, such as variations in intensity and duration leading to repeating patterns. Hence, it has been proposed that perception of rhythm in language and music may rely on connected or even shared cognitive networks. In this talk, I will present a selection of our experimental studies with both adults and infants that have explored the domain-generality of rhythm perception by means of two different approaches: First, we have conducted behavioral experiments that included musical experience as a predictor of speech rhythm perception. Second, using eyetracking, we have investigated listeners' pupillary entrainment to rhythms across speech and nonspeech signals. Results from both adults and infants indicate that higher musical experience can be a factor that predicts speech rhythm perception. This highlights the relevance of considering individual differences in musicality when aiming to explain variability in prosody perception. I will discuss how musical input may influence the process of language acquisition and settle individuals' speech perception routines.