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The relationship of grammar development with musical rhythm abilities in children

Mounting evidence suggests that the development of grammar abilities is associated with the development of musical rhythm abilities, yet research exploring this connection remains limited. In my talk, I will first introduce two theoretical frameworks that underpin my research: the Atypical Rhythm Risk Hypothesis and the Musical Abilities, Pleiotropy, Language, and Environment (MAPLE) Framework. Following this, I will summarize my recent experimental work that aimed to contribute to the better understanding of the rhythm-grammar link. This work used a variety of methods, including behavioral tests, questionnaires, and electroencephalography (EEG), across several study designs such as assessments of individual differences, rhythmic priming experiments, and longitudinal studies. I will cover research focusing on infants as well as on children with typical language development and with developmental language disorder (DLD). Finally, I will discuss the potential future clinical applications of my work.