Online Proceedings

POSTER SESSION 1

Commons West, Easel 27

11:00 AM to 1:00 PM

Relating Individual Differences in Foreign Music Comprehension to Neurocognitive Aspects of Second Language Aptitude

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Music, like language, is considered a human universal. However, like language, individuals learn particular genres of music based on their cultural exposure. Recent behavioral and neuroimaging research on music cognition has shown that individuals can more easily process and remember music that is culturally familiar to them than music that is culturally novel. The goal of this research is to investigate whether individual differences in the ability to learn novel musical structures (or music aptitude) relates to individual differences in the ability to learn new languages, or language aptitude. Our study includes 5 minute eyes-closed resting-state electroencephalography (EEG), language aptitude tests (LLAMA D&F) of phonological awareness (tests participants' memory of a series of words in a foreign language) and grammatical inferencing (ability to extract underlying rules), and a music learning test in which participants learn a form of foreign music. We predict that phonological awareness will positively correlate with overall memory for foreign music, as it relates to the ability to remember sequences of sounds. In contrast, we predict that grammatical inferencing will positively correlate with the extent to which individuals learn to distinguish between different types of foreign music through statistical learning. This study provides evidence of the connection of individual differences in foreign music comprehension to individual differences in second language acquisition at both a behavioral and neurological level.