

Examining bilingualism and learning through structural and functional neuroimaging

Gigi Luk, McGill University, Canada

Bilingualism is a life experience for many people around the world. Recent advances in cognitive neuroscience have afforded the examination of structural and functional differences in the brain associated with this life experience. However, there is still little knowledge on how bilingualism is related to learning new information, a key experience for many attending school in a second language.

In this talk, I will share a new paradigm that uses naturalistic video watching while adults and adolescents underwent functional magnetic resonance imaging (fMRI). This paradigm was designed to mirror learning in an ecologically relevant manner. Results showed that learning success relied on different functional networks in adults and adolescents with diverse language experiences.

I will end the talk with the implications and power of designing innovative ecologically relevant paradigms in cognitive neuroscience research when investigating bilingualism and learning.