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Presentation:

Dance on the Brain: Enhancing Mental Health and Interpersonal Synchrony

Brief Description:

Dance evolved as a form of interpersonal coordination, which serves to connect the self to others. We will discuss The Synchronicity Hypothesis of Dance, which posits that

we dance for the purpose of intrinsic reward, enhancing behavioral and neural synchrony in the process, leading to improved interpersonal communication.

Bio

Dr. Julia C. Basso is an Assistant Professor in the Department of Human Nutrition, Foods and Exercise at Virginia Tech as well as the Director of The Embodied Brain Laboratory. Dr. Basso holds a PhD in Behavioral and Neural Science, a BA in dance, and is a certified yoga teacher. Her primary scientific passion centers around elucidating the body-brain connection and harnessing the power of the body to optimize brain function and physiology. The two-fold aims of her scientific work are: 1) to identify the neural and behavioral mechanisms through which mind-body-movement practices optimize brain health and wellness; and 2) to identify the neural mechanisms that optimize motivational engagement in physical activity and other health behaviors.

To date, her research has established that a bidirectional relationship exists between physical movement (i.e., the body) and the brain. That is, the brain regulates the drive to engage in physical activity and when we engage in physical activity, the brain is affected in profoundly positive ways including how we think and feel. Recently, Dr. Basso developed The Synchronicity Hypothesis of Dance, which states that we engage in dance for the purpose of intrinsic reward, which leads to neural synchrony in seven distinct neurobehavioral areas including sensory, motor, cognitive, social, emotional, rhythmic, and creative. Further, when we dance with others, brain dynamics between individuals become synchronized (i.e., inter-brain synchrony), leading to enhanced interpersonal coordination.

Current research projects focus on 1) using episodic future thinking in combination with healthy lifestyle change to optimize health outcomes in diabetes, obesity, and pregnancy; 2) examining the hippocampal physiology changes underlying exercise-induced improvements in learning and memory; and 3) investigating the effects of brain-compatible dance education on affective state, cognitive functioning, and social connectivity in both healthy and clinical populations, including those with Autism Spectrum Disorder.

