

# **Empathy and Periodic Entrainment Relate to Perceived Interaction in Dyadic Dance Movement**

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Previous research suggests that synchronized movement can promote social bonding and prosocial behavior. This current study explores how trait empathy modulates interaction and entrainment in dyadic dance in a free, dance movement context using perceptual and empirical measures. Twenty-four point-light animations were created using motion capture data from dyads whose members' self-reported empathy was either both high, both low, or contrasting (one high, one low). Animations were presented to 33 participants, who rated dyads level of interaction and motion similarity on a scale from 0 to 100 using a slider. One Way Repeated Measures ANOVAs showed a significant effect of empathy combination on perceived interactivity, with high-low stimuli rated as significantly more interactive than either high-high or low-low stimuli. Analysis of motion capture data revealed that dyads with the lowest levels of differences in periodicity of movement between dancers were rated as significantly more interactive.