Happy Faces, Faster Stops: The Cognitive Benefits of Dance in Emotional Contexts

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Abstract

Dance is more than physical exercise; it integrates cognitive, emotional, and motor skills. This study investigated the role of dance in modulating response inhibition in emotional and non-emotional contexts. We compared dancers (N = 15) and non-dancers (N = 21) on two response inhibition tasks: the non-emotional stop-signal task (NESST) and the emotional stop-signal task ESST (examined inhibition in the presence of emotional distractors). Inhibitory control was similar between the dancers and non-dancers in the non-emotional stop-signal task. However, a significant interaction between group and emotion was observed in the ESST, which may indicate that irrelevant emotional information modulates inhibitory control differently in both groups. More specifically, stop signals with irrelevant emotional happy faces (compared to angry and neural) facilitated inhibitory control in dancers only. These findings suggest that dance training is associated with enhanced cognitive control in emotionally salient contexts, particularly when processing positive emotional stimuli.

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