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Examining the Relationship Between Self-Efficacy and Stimulus Processing

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Poster Presentation P43

**EXAMINING THE RELATIONSHIP BETWEEN SELF-EFFICACY
AND STIMULUS PROCESSING**

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Self-efficacy (SE) is a modifiable psychosocial factor related to individuals' beliefs in their capabilities to successfully complete courses of action and is positively associated with task performance (response accuracy and speed). The authors hypothesized that SE may improve performance by enhancing stimulus processing during task performance. To assess this hypothesis, we examined the relationships between SE and behavioral and neural indices of stimulus processing during the completion of two sessions of a modified flanker task. The first session was completed to determine if SE was related to behavioral and neural indices of stimulus processing while the second session was included to examine whether alterations in SE would lead to corresponding alteration in stimulus processing. In total, 76 healthy young adults completed the experiment and were exposed to either, false positive (24), false negative (26), or no performance (26) feedback after the first session to alter their task SE. Behavioral indices included response accuracy and response time (RT), and neural indices included the P3b, an event-related brain potential associated with stimulus processing. Results showed that higher SE was associated with greater response accuracy, P3b amplitude, and faster RT during task execution in the first session. After SE manipulation, results indicated a significant effect of the feedback manipulation on SE, but no significant influences on P3b, accuracy, reaction time, or changes in those measures across sessions. These findings suggest that SE is beneficially related to neural and behavioral indices of stimulus processing and improved stimulus processing may help explain the association between SE and improved task performance. However, manipulations of task-related SE are not sufficient to significantly improve subsequent stimulus processing.