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Examining the Effects of Ostracism on Neural and Behavioral Indices of Cognitive Self-Regulation

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EXAMINING THE EFFECTS OF OSTRACISM ON NEURAL AND BEHAVIORAL INDICES OF COGNITIVE SELF-REGULATION

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The impact of ostracism, or social exclusion, on a target individual produces a number of negative consequences, including deficits in cognitive functioning related to self-regulation and general cognition. While such effects have been acknowledged, there is a lack of literature examining these effects in relation to the monitoring of one's actions during task performance. Accordingly, the current study utilized event-related brain potentials (ERPs) to investigate the neural and behavioral consequences of ostracism, created through the use of the Cyberball paradigm, in relation to self-regulatory action monitoring processes implemented during the execution of a modified flanker task. Results indicated that participants who were excluded during the Cyberball paradigm showed decreases in both the error-related negativity (ERN), a neural index of self-regulation following performance errors, and post-error response accuracy, a behavioral indicator of the ability to correct behavior following a mistake, following exclusion. Conversely, participants who were not excluded during Cyberball evidenced greater ERN amplitude and improved post-error response accuracy following the Cyberball interaction. These findings suggest that action monitoring processes, including the ability to effectively detect and correct performance errors during task executions, are compromised following the experience of being excluded from a social interaction.