

# EFFECTS OF POSITIVE REGARD AND INDUCED SOCIAL STRESS ON COGNITIVE FUNCTION: A PSYCHOPHYSIOLOGICAL PERSPECTIVE

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**Background:** Stress has repeatedly been shown to have detrimental effects on cognitive ability. This has specific implications within the medical field given findings that physicians with a biomedical epistemology face greater stress than their biopsychosocial counterparts in the face of uncertainty.

**Objective:** The current study examined how induced stress affected participants' cognitive abilities when prompted with positive or stoic regard, as well as observing possible intersecting factors that could affect this relationship. It was hypothesized that participants receiving positive regard during the stressor would have less impaired cognitive ability compared to participants receiving stoic regard. Furthermore, it was expected that the stoic condition would display increased arousal.

**Methods:** Effects were measured using heart rate measurements, a mood pre-appraisal, and a timed backwards counting task as a measure of cognitive ability. Measurements were taken at three points during the study: at baseline, following the stressor, and post-debriefing. Stress was induced using the Trier Social Stress Test (TSST).

**Preliminary Results:** Effects of condition on cognitive ability were approaching significance ( $p = .09$ ) based on gender. Males matched expectations by performing better when receiving positive feedback, but female participants performed better only when receiving stoic feedback. Female participants also reported significantly lower positive mood at baseline ( $p < .05$ ). Participants in the stoic condition also matched expectations of approaching significance ( $p = .07$ ) for increased arousal (increased heart rate) in response to the stressor when compared to the positive condition.

**Conclusion:** The effect of regard on cognitive ability was dependent on gender. It is possible that female participants performed worse in the positive feedback condition due to increased sensitivity to perceived insincere compliments of cognitive ability. This effect could be amplified by females' reported lower positive mood. Much still needs to be studied about the intersectionality of factors related to stress and cognition.

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