**BACKGROUND**

Impact of stress on self-control
- Early work showed that participants exposed to unpredictable, stressful noise performed worse on a self-regulation task (Glass, Singer, & Friedman, 1969).
- A literature review concluded that stress is associated with relapse of many behaviors associated with self-control (Baumeister et al., 1994).
- Stress researchers distinguish between acute and long-term stress. The current study focuses on acute stress.

Acute stress appraisals
- Two distinct acute stress reactions have been observed—threat and challenge (Blascovich & Tomaka, 1996).
- Threat appraisals are elicited when demands of a stressor are greater than perceived resources to cope with the stressor.
- Challenge appraisals are elicited when resources available for coping with a stressor meet or exceed the demands of the stressor.
- Threat and challenge appraisals evoke different responses that can alter endogenous glucose release (Blascovich, 2008; Dienstbier, 1989; Seery, 2011).

The current study
- The current study tested the impact of threat and challenge appraisals on subsequent acts of self-control.
- Acts of self-control may rely on glucose availability (Gailliot et al., 2007).
- Stress appraisals evoke a pathway that signals glucose release (Seery, 2011).
- Threat appraisals evoke an extra pathway that dampens the glucose pathway (Seery, 2011).
- The hypothesis of the current study was that participants in a challenge condition would outperform controls on an environmental control task, and participants in a threat condition would perform worse than controls on the self-control task.

**METHOD**

Participants: N = 81 (30 M; 51 F)

Procedure:
- Participants were randomly assigned to a control, threat, or challenge condition.
- Participants completed a five-minute speech task in front of two interviewers who responded with verbal and nonverbal cues to elicit either a threat or challenge appraisal.

**RESULTS**

Main Results
- Participants in the threat condition that reported low chronic stress performed better on the Stroop task than participants in the challenge or control conditions.
- Stroop Interference scores did not differ by condition among participants who reported high chronic stress.

**CONCLUSIONS**

- Participants who reported low life stress and were in the threat condition showed heightened self-control performance.
- This finding could indicate that only people with low chronic stress can respond effectively to acute stressors.
- The challenge appraisal manipulation may have failed because challenge participants did not rate the task as stressful.
- The potential failure of the challenge manipulation limits the conclusions that can be made about participants in the challenge condition.
- Future work may employ different threat and challenge manipulations to further explore the effects of challenge states on self-control.

**REFERENCES**