

**Rozeck, Chris.** (2014). Learning can be Stressful: The Role of Cognitive Appraisals and Cortisol Trajectories in Learning and Interest Development

### **Abstract**

Sociocognitive conflict occurs when people express differing points of views. This conflict can promote learning, but it can also undermine learning when it transpires within a context that emphasizes performance evaluation. However, Blascovich's model of challenge and threat suggests that some individuals might still benefit from conflict, even under evaluative pressure, due to positive cognitive appraisals of the situation. In this dissertation, I examined how cognitive appraisals, assessed with a measure of participants' confidence, and the type of learning context moderated the effects of conflict. In Study 1, participants were put in a context with increased social comparisons and evaluative pressure (performance goal context). Results showed that confidence moderated the effects of conflict (versus no conflict) on mid-session appraisals, task performance, and task interest; confident participants showed a challenge response and less confident participants showed a threat response. Study 2 replicated and extended the findings in Study 1. As in Study 1, some participants were put in a performance goal context, but other participants were put in a context that emphasized learning and self-improvement (mastery goal context). In the mastery goal context, there were no harmful effects of conflict, even for less confident participants. Furthermore, in Study 2, cortisol was measured during learning and testing to assess different patterns of physiological stress as a mechanism underlying the effects of conflict on task performance and interest. Latent growth curve modeling was used to examine both the effects of cortisol levels and change over time. I found that neither static measures of cortisol during learning nor cortisol during testing predicted task performance and interest, but rather, that the trajectory of cortisol change over time was a significant predictor of both outcomes. Increasing cortisol from learning to testing led to worse performance and less interest, but decreasing cortisol from learning to testing led to better performance and more interest. These findings suggest that cortisol mediated the effects of conflict on achievement and interest outcomes and that those specific patterns of cortisol reactivity reflect challenge and threat responses during learning.