**Title**: Work stressors and performance: The role of cognitive appraisals

**Main supervisor**: Prof. Stephan Billinger

**Co-supervisor**: Prof. Martin Meißner

**Summary**

Research on the effects of challenge and hindrance stressors on performance is burgeoning in organizational stress literature. Nevertheless, our understanding of the mechanisms explaining these effects is still limited. Grounded in the challenge-hindrance stressor framework and the transactional theory of stress, this article-based dissertation addresses the question of how stressors produce their effects on performance by investigating the underlying cognitive mechanisms associated with these effects in three research papers. Furthermore, it focuses on exogenous and organizationally relevant factors that can affect the appraisals, i.e., task difficulty and performance feedback.

The first paper reviews empirical studies dealing with the challenge and hindrance categorization of stressors and contrasts the studies that measure appraisals with those that do not consider appraisals with the focus on reported correlations. It finds that measurement of appraisals offers more refined picture of the relationships between the stressors and performance-related outcomes.

The second paper conducts a preregistered experimental study to investigate the effects of the magnitude of a challenge stressor, i.e., task difficulty, on challenge and hindrance appraisals and performance in a demanding cognitive task. It finds that increase in task difficulty leads to initial increase in challenge appraisals, and as the task difficulty continues to increase the associated increase in challenge appraisals is non-significant. The effects of the magnitude of task difficulty on hindrance appraisals were positive and linear. The results further demonstrate that both challenge and hindrance appraisals are negatively associated with task performance. In addition, it provides support for the mediating role of the hindrance appraisals in the task difficulty-performance relationships.

The third paper consists of two preregistered experimental studies. Study 1 focuses on temporal aspects of the stressor-performance relationships. Specifically, it examines how task performance, provided as in-task concurrent feedback, i.e., simultaneous presentation of upward social comparison and objective feedback, explains change in challenge and hindrance appraisals. Study 1 finds partial support for the hypothesized effects. Study 2 examines the underlying effects found in Study 1 and employs eye-tracking to explore the associations between challenge and hindrance appraisals and attentional focus on the two elements of the in-task concurrent feedback to shed light on attentional processes. Study 2 is currently in the process of data collection and is not completed due to COVID-19 induced restrictions on the laboratory.

The overall results of this dissertation encourage rethinking the existing state of the challenge-hindrance stressor framework by inviting a more complex conceptualization of the stressor-performance association in organizations.

*Keywords*: challenge, hindrance, cognitive appraisals, task difficulty, performance, performance feedback, attention, n-back.