## **Oral Defense Announcement**

University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree Doctor of Philosophy in Psychology with an emphasis in Behavioral Neuroscience

### Natalia Marta Kecala

M.A. in Psychology, May, 2019, University of Missouri-St. Louis
M.A. in Forensic Psychology, May, 2015, University of Denver
B.A. in Psychology, May, 2012, New York University
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# Fear, Distress, and Dissociation: Correlates of Physiological Hyporeactivity After Interpersonal Victimization

Date: October 15, 2024 Time: 12:30 p.m. to 2:00 p.m.

Place: 339 Stadler Hall

#### **Abstract**

Despite consistent findings of high reactivity to trauma cues in PTSD, there exists a consistent subset of physiological nonresponders who exhibit more complex and severe posttraumatic symptomatology. Research has identified different patterns of defensive reactivity representing Fear (core) and Distress (complex) PTSD symptoms. However, no studies have directly compared responders and nonresponders on physiological and clinical symptoms posttrauma. Sixty-six adult women who had experienced first-degree sexual or physical assault within the last month were categorized using HRR to two personalized trauma scripts. Participants exhibiting negative HRR to both scripts were classified as nonresponders (n = 29), while those showing positive HRR to either script were considered responders (n = 37). A robust 2x5 mixed ANCOVA compared HRR between responder types and across two trauma-based and three trauma-unrelated script conditions, and Mann-Whitney U tests compared clinical symptom profiles between the two groups. Two decision tree models were assessed to compare the performance of a model composed of Fear and Misery (a composite of Distress and depression) and determine if adding state and trait dissociation to the model improved the ability to predict nonresponders. Responders and nonresponders showed significant HRR differences only to their trauma scripts, although their patterns of reactivity differed across script conditions. Comparisons revealed no statistically significant differences in Fear, Distress, or depression symptoms; however, values trended in hypothesized directions, with responders showing higher Fear and nonresponders showing greater levels of Distress and depression. Decision tree analyses indicated that the complex model was more accurate in predicting nonresponders, with trait dissociation as the most important variable. Results provide preliminary evidence that physiological nonresponders exhibit different posttraumatic profiles and may benefit from modified treatments. Group differences may have been obscured by sample size limitations and high inter- and intra-participant variability in responders. Future research is needed to replicate results and further investigate complex patterns of dissociation within responder types.

### **Defense of Dissertation Committee**

Michael G. Griffin, Ph.D. Carissa L. Philippi, Ph.D. Kimberly Werner, Ph.D. Steven Bruce, Ph.D.