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Introduction to the Special Issue on Cognitive and Behavioral Flexibility in Fear and Anxiety Disorders

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Abstract

Converging lines of research highlight the significance of cognitive and behavioral flexibility in the etiology, maintenance, and treatment of fear and anxiety disorders. We have developed a Special Issue to highlight recent empirical investigations, contemporary theory, and novel directions for future study. It is hoped that this special issue will (a) underscore the centrality of cognitive and behavioral flexibility to fear- and anxiety-related psychopathology, (b) call attention to cognitive science approaches investigating related neuropsychological correlates, and (c) highlight novel experimental and theoretical research on germane contextual factors.

Keywords

flexibility, rumination, emotion regulation, context

The ability to think and respond flexibly is essential for effective interaction with our environment. Cognitive and behavioral flexibility allow us to adapt to different situations, shifting strategies as needed to meet changing environmental demands. Overreliance on certain cognitive or behavioral strategies, such as

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rumination or avoidance, has been tied to psychopathology, including anxiety disorders (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010). Cognitive and behavioral flexibility also play a central role in evidence-based practice approaches for the treatment of fear and anxiety disorders (see Powers, de Kleine, & Smits, 2017, for review), which focus on increasing variety and flexibility in cognitive and behavioral responses as maladaptive behaviors are reduced. Consequently, the primary purpose of this *Behavior Modification* special series is to provide a forum for highlighting empirical evidence, contemporary theory, and novel directions for future work investigating the relationship between cognitive and behavioral flexibility and the etiology, maintenance, and treatment of fear and anxiety disorders. It is hoped that by presenting a broad range of topics interconnected by a focus on cognitive and behavioral flexibility that this special issue, as a whole, will (a) underscore the centrality of cognitive and behavioral flexibility to fear- and anxiety-related psychopathology, (b) call attention to cognitive science approaches investigating related neuropsychological correlates, and (c) highlight novel theoretical and experimental research on germane contextual factors.

In the lead article, Bishop, Ameral, and Palm Reed (2018) address the nature of trauma-related rumination in posttraumatic stress. Building upon prior work, which suggests that increased rumination is tied to greater severity of posttraumatic stress disorder (PTSD) symptoms, the authors investigate potential cognitive mechanisms underlying this connection. Results suggest that experiential avoidance partially explains the relationship between rumination and PTSD severity. Overall, this study provides a new perspective on the link between trauma-focused rumination and PTSD and highlights the importance of considering inflexible patterns of cognition as potential avoidance strategies in future work in this area. In the second contribution in this series, Stevens and colleagues (2018) use an experimental paradigm to examine whether worry and relaxation affect flexibility during cognitive restructuring. Here, the authors conceptualize cognitive inflexibility in worry as stemming from both biased information processing and a weakening of attentional control. The authors' findings bolster results from previous investigations highlighting negative valence and abstractness as pernicious and persistent characteristics of worry in generalized anxiety.

While the first two articles in this series focused on examining the relationship between cognitive flexibility and psychopathology, the next two articles take a developmental perspective to examine neuropsychological correlates of cognitive and behavioral flexibility. Taking a cognitive science approach, both of these studies operationalize aspects of cognitive and behavioral flexibility using well-defined, computerized behavioral paradigms. In the third article in the series, Breenan, Luke, Murphy, Francazio, and Flessner (2018) expand

upon the growing literature surrounding anxiogenic parenting practices by examining the relation between specific parenting practices (i.e., accommodation, overinvolvement, and modeling of anxious behavior) and cognitive flexibility in youth. In the fourth article, Murphy et al. (2018) conduct a transdiagnostic investigation of executive functioning in youth with a range of anxiety symptoms. Overall, these articles highlight the role for cognitive science approaches in fear and anxiety disorders research, while shedding light on the next steps in investigating neurocognitive and psychosocial correlates of fear and anxiety-based pathology.

The last two articles in this special series illustrate the importance of considering contextual factors when defining and investigating cognitive and behavioral flexibility. The fifth contribution in this series presents a contextual behavioral science framework for understanding the relationship between behavioral flexibility and anxiety-related psychopathology. Palm Reed, Cameron, and Ameral (2018) propose that behavioral flexibility is best understood as a functional outcome rather than being conceptualized as adaptive or maladaptive. Utilizing this framework, the authors suggest that the important unit of analysis is interaction between behavior and context. In the final contribution in this series, Sarfan, Gooch, and Clerkin (2018) use this unit of analysis and examine whether the effects of emotion regulation strategies vary depending on the specific contextual factor of high versus low controllability. Using an in vivo speech paradigm, the authors extend a growing body of correlational research linking the inflexible use of emotion regulation strategies with psychopathology. Findings suggest that putatively adaptive emotion regulation strategies such as problem solving may not be adaptive across all contexts. Taken together, the research by Palm Reed et al. (2018) and Sarfan et al. (2018) underscores the context-dependent adaptiveness of emotion regulation strategies. That is, behavioral flexibility in the use of emotion regulation strategies may have greater importance for psychological health than uniform utilization of putatively adaptive strategies.

Collectively, the studies presented in this special issue of *Behavior Modification* highlight the importance of considering cognitive and behavioral flexibility in fear- and anxiety-related psychopathology. We hope that the included articles serve to inform future empirical study, theoretical understanding, and clinical investigations. As illustrated by this special issue, such work will likely have the greatest impact when it is conducted with explicit attention to specific contexts, developmental trajectories, and theoretical models. Complementary use of both basic and applied research methods will be critical for moving the field forward.

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