New Research From Clinical Psychological Science

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The Dynamics of Pain During Nonsuicidal Self-Injury

Edward A. Selby, Amy Kranzler, Janne Lindqvist, Kara B. Fehling, Julia Brillante, Fengpeng Yuan, Xianyi Gao, and Alec L. Miller

This research examines pain ratings during the deliberate infliction of physical injury to one's own body without intent of suicide (i.e., nonsuicidal self-injury, or NSSI). Participants (15- to 21-year-olds who engaged in NSSI) received prompts on their phones five times a day for 2 weeks asking them to rate the extent to which they were feeling negative emotions (e.g., sadness, anger, being overwhelmed) and to assess whether they had thoughts of self-injury and whether they had engaged in NSSI since the last assessment. When participants reported having engaged in NSSI, they were asked to report their experience of physical pain before, during, and after the NSSI episode. Results suggest that most participants felt pain during most NSSI episodes, and some felt that pain diminished after the NSSI completion, even though it was still higher than before NSSI. However, many participants reported not feeling pain during NSSI. Participants who experienced less pain during NSSI and more negative emotions before the NSSI reported more NSSI behaviors. But participants with higher fluctuations in negative emotions and who reported more pain during NSSI also self-injured more. These results suggest a complex pattern of the relationship between pain, NSSI, and negative emotions. These relationships vary between people and episodes, and understanding them better may enhance current treatments for NSSI.

Associative Activation as a Mechanism Underlying False Memory Formation Henry Otgaar, Mark L. Howe, Peter Muris, and Harald Merckelbach

Understanding the mechanisms that generate false memories is important in mental health and legal

contexts. Recently, Otgaar and colleagues (2017) proposed that associative activation is a viable mechanism for generating false memories. According to the associative activation framework, activation of one concept activates other associated concepts, the automatic spread of activation reaches highly associated concepts that were not presented, and false memories are formed. However, Tryon (2018) argued that Otgaar et al.'s description of associative activation did not meet the criteria of causation and explanation to qualify as a mechanism. In this commentary, Otgaar and colleagues disagree with Tryon and present several studies providing evidence for associative activation as a likely cause of false memories. For example, the higher the semantic association between presented words and an associated nonpresented word, the higher the probability of falsely remembering the nonpresented word. Otgaar and colleagues agree with Tryon that it is vital to establish whether something can be called a mechanism but believe there is evidence for associative activation to be considered a mechanism for the creation of false memories. Recognizing at least one mechanism of false memories may elucidate how false memories occur in legal cases and therapy.

The Phenomenology and Correlates of Flashbacks in Individuals With Posttraumatic Stress Symptoms
Anne L. Malaktaris and Steven Jay Lynn

Individuals with posttraumatic stress disorder (PTSD) often experience flashbacks to traumatic memories. But what are these flashbacks like? Participants with PTSS (i.e., PTSD or subthreshold PTSD symptoms) reported the frequency, severity, and sensory properties of their flashbacks. These data were then compared with ratings of imagined flashbacks provided by participants with PTSS who did not experience flashbacks, participants without PTSS but with trauma exposure, and participants without trauma exposure. Only participants without PTSS underestimated the vividness, emotional intensity, distress, and functional impact associated with flashbacks. Moreover, flashbacks of individuals with PTSS were not fragmented but rather coherent. Other psychological characteristics were also assessed, and participants with PTSS with and without flashbacks reported greater symptom severity, including more sleep complaints and dissociative symptoms. Participants with PTSS also reported greater psychological inflexibility, lower mindfulness, and higher experiential avoidance (i.e., avoiding thoughts, memories, and experiences). These results suggest a meaningful connection between PTSD symptoms and mindfulness and highlight the possible utility of clinical approaches that enhance mindfulness skills and psychological flexibility to treat PTSD.

A Potential Role of the Widespread Use of Microwave Ovens in the Obesity Epidemic Satoshi Kanazawa and Marie-Therese von Buttlar

People acquire more calories from eating hot food than from eating the same food cold, since they expend more calories digesting cold food. Therefore, the authors propose, the widespread use of microwave ovens to reheat food might have played a small role in the current increases in obesity rates. Using data from the British Cohort Study, which tracked individuals born in Great Britain from their birth in 1970 until 2012, the authors analyzed individuals' body mass indexes (BMI; people with BMI of 30 or more are considered obese), dietary habits, physical-activity frequency, and household, including the existence of a microwave. The researchers found that individuals whose households had a microwave were more likely to have a higher BMI, regardless of their dietary preferences and physical activity. The researchers also looked at U.S. obesity rates from 1960 to 2014 and estimates of the

proportion of American households with microwaves during the same period. They found that as the rate of microwave ownership increased, obesity rates also increased. Given the complexity of the obesity epidemic, which has implications for mental health and pathology, identifying even a potentially small contributor, such as increased microwave use, may increase understanding of the phenomenon.