New Research From Psychological Science

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Read about the latest research published in *Psychological Science*:

<u>Variation in the ?-Opioid Receptor Gene (OPRM1) Does Not Moderate Social-Rejection Sensitivity in</u> Humans

Emil Persson, Erkin Asutay, Markus Heilig, Andreas Löfberg, Nancy Pedersen, Daniel Västfjäll, and Gustav Tinghög







Genetic variations of the ?-opioid receptor are related to individual differences in physical pain sensitivity, and some research suggests that they might also underlie differences in sensitivity to social rejection. This research suggests that the latter link may be weaker than previously thought. A sample of 490 adults were genotyped for the A118G variation of the ?-opioid receptor gene and divided into two groups: individuals carrying G alleles (i.e., with G/G or A/G alleles) and individuals with A/A alleles. All participants played Cyberball, a game in which they competed against virtual players who, in an exclusion version of the task, stopped passing a ball to the participant, provoking feelings of social exclusion. Participants then rated their social distress after being excluded and responded to a survey that assessed their dispositional sensitivity to social rejection. Contrary to previous studies in which participants with the G alleles seemed to be more sensitive to social rejections, results indicated that genetic variation of the ?-opioid receptor did not predict sensitivity after exclusion in the Cyberball game or dispositional sensitivity to social rejection. In a series of decision-making games, the researchers also investigated whether G allele carriers would be more generous but more concerned about betrayal and more negative after unfair treatment than A allele carriers. In these games, real money was allocated to participants and more money could be earned by interacting with others, but no differences between participants emerged. These findings may help to exclude genetic variability of the ?-opioid receptor as an explanation for different levels of sensitivity to social rejection, which represents a major threat to an individual's physical and mental well-being.

Specks of Dirt and Tons of Pain: Dosage Distinguishes Impurity From Harm

Joshua Rottman and Liane Young







People's evaluations of the severity of harm transgressions (e.g., violence, maltreatment) seem to depend on their frequency and magnitude, whereas their evaluations of purity transgressions (e.g., sacrilege, deviant sexual acts) are less affected by frequency and magnitude, this study suggests. Participants evaluated how morally wrong harm and purity transgressions were. These transgressions varied in frequency or magnitude (e.g., a person has intercourse with a goat once vs. frequently; a person throws a small vs. a large rock at a farm animal). Harm transgressions that were more frequent or larger were judged as more morally wrong than rare or smaller harm transgressions. In contrast, the dosage of purity transgressions did not seem to affect how morally wrong they were judged to be. Results similar to these were obtained in another experiment in which the dosage variations were miniscule (e.g., "Alice consumes a one-millimeter- vs. one-centimeter-thick piece of flesh from her neighbor's corpse"). Rottman and Young suggest that this dosage insensitivity in the purity domain may lead people to misconstrue the impact of their "purity-based" choices (e.g., feeling licensed to pollute a river that is already slightly polluted).

Fear Without Context: Acute Stress Modulates the Balance of Cue-Dependent and Contextual Fear Learning

Kathrin Simon-Kutscher, Nadine Wanke, Carlo Hiller, and Lars Schwabe





After a dog attack in the park, you may link the event to the barking (i.e., cue), and therefore fear the barking of a dog, or to the park (i.e., context), and therefore fear the park where the attack took place. This research explored whether acute stress may affect the balance of learning to associate fear with cues versus with contexts. Participants underwent either a task designed to induce stress or a neutral task. Afterward, in a fear-learning task, participants explored a computer-game-like virtual environment with three rooms. In one of the rooms, participants would receive mild shocks to their leg whenever a light came on. After the fear-learning task, participants had to explore each room again, with the light in a different room, but did not receive shocks. Throughout this procedure, the researchers measured skin conductance responses, a measure of fear. Participants who were not under stress before the fearlearning task learned to associate fear with the cue (i.e., the light) and with the context (i.e., the room), whereas participants under stress associated fear with only the cue. Acute stress also caused participants to keep responding with fear to the light, even when the light appeared in a different room and they did not receive more shocks. These findings indicate that acute stress may enhance fear in response to cues (e.g., fear after hearing a dog bark) and impair the association with a context (e.g., fear in the park where a dog attack took place). This finding ?may help to better understand fear-related disorders, such as posttraumatic stress disorder, in which fear is decontextualized but triggered by single cues and in which stress is a major factor.