

# Collective Trauma and Stress Following Disasters: APS Journal Articles Publicly Available

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The Association for Psychological Science continues to make journal research pertaining to trauma and disasters publicly available. The latest update (February 14, 2023) provides additional resources that are intended to support public understanding of the impact of catastrophes such as natural disasters (including the January 2023 earthquake in Turkey and Syria) and global health pandemics such as COVID-19.

**Do Past Events Sow Future Fears? Temporal Disintegration, Distress, and Fear of the Future Following Collective Trauma (*Clinical Psychological Science*, Dec 2022)**

<https://journals.sagepub.com/doi/full/10.1177/21677026221119477>

Prior adversity may increase individuals' adverse responses to collective trauma, this research suggests. Emma Grisham and colleagues examined the relationships between prior adversity and three responses to collective trauma: temporal disintegration (e.g., time slowing down, the present feeling disconnected from the past and future), distress, and fear of future trauma following two collective traumas (a university-based active shooter event and the terrorist attacks of September 11, 2001). Temporal disintegration was associated with elevated distress, which was related to greater fear of future trauma.

Individuals who experienced prior adversity were especially likely to report temporal disintegration following collective trauma, suggesting that prior adversity may render people vulnerable to subsequent distorted time perceptions.

**Also see this collection of articles, features, and news stories related to [Disaster Response and Recovery](#).**

**Balancing the Freedom–Security Trade-Off During Crises and Disasters (*Perspectives on Psychological Science*, Jan 2022)**

<https://journals.sagepub.com/doi/full/10.1177/17456916211034499>

During crises and disasters, such as hurricanes, terrorist threats, or pandemics, policymakers sometimes increase security at the cost of freedom. Psychological science, however, has shown that this restriction of freedom may have strong negative consequences for behavior and health. Cheek and colleagues suggest that psychology can inform policy both by elucidating some negative consequences of lost freedom (e.g., depression or behavioral reactance) and by revealing strategies to address them. They propose that careful consideration of the psychology of freedom can help policymakers develop policies that most effectively promote public health, safety, and well-being when crises and disasters strike.

**From Threat to Challenge: Understanding the Impact of Historical Collective Trauma on Contemporary Intergroup Conflict (*Perspectives on Psychological Science*, Aug 2022)**

<https://journals.sagepub.com/doi/full/10.1177/17456916221094540>

Mengyao Li and colleagues propose a novel theoretical framework to understand how historical trauma can have a long-term impact on how victims as well as perpetrators perceive contemporary intergroup relations. Their framework proposes that people appraise their group's past victimization or perpetration differently, either as a threat or a challenge. These differential appraisals, shaped by contextual factors and individual differences, subsequently influence how group members respond to contemporary intergroup conflict, with adaptive and maladaptive consequences. This model contributes to previous research that has shown diverse effects of historical trauma on present-day intergroup conflict.

**The Emergency of Prosociality: A Developmental Perspective on Altruism and Other Prosocial Behavior in the Face of Disaster (*Current Directions in Psychological Science*, Oct 2022)**

<https://journals.sagepub.com/doi/10.1177/09637214221114090>

Regardless of the nature of an emergency, people tend to engage in prosocial behavior that benefits others. Lucie Rose and colleagues provide an overview of altruistic and other prosocial behavior in typical human development as well as of developmental distinctions between helping, sharing, and comforting. They focus on the expression of these behaviors in emergency situations, using the COVID-19 pandemic to illustrate how prosociality shifts and adapts in a specific context. They suggest that a developmental framework may help researchers and professionals in the field achieve a more comprehensive understanding of the many facets and underlying mechanisms of prosociality in

emergency contexts.

**Cultural Evolutionary Mismatches in Response to Collective Threat (*Current Directions in Psychological Science*, Sept 2021)**

<https://journals.sagepub.com/doi/full/10.1177/09637214211025032>

One of the cultural adaptations human groups evolved to cope with collective threats is cultural tightening, characterized by the adoption of strict social norms and punishments. Michele Gelfand discusses two examples in which interference with threat signals leads to cultural mismatches. In the COVID-19 pandemic, the threat is real but there is resistance to tightening. In contrast, the rise of populist movements shows how an exaggeration of threat leads to unnecessary tightening. Calibrating tightening to the degree of actual threat while maximizing order and openness (i.e., becoming “culturally ambidextrous”) is a key challenge for human societies, Gelfand proposes.

**Experiencing a Natural Disaster Temporarily Boosts Relationship Satisfaction in Newlywed Couples (*Psychological Science*, Oct 2021)**

<https://journals.sagepub.com/doi/full/10.1177/09567976211015677>

Hannah C. Williamson and colleagues analyzed relationship satisfaction in a sample of newlywed couples (married less than 12 months) before and after Hurricane Harvey made its landfall in Texas, where the couples lived. Results indicated that relationship satisfaction increased immediately after the hurricane. However, this increase was temporary and declined over the following year. These findings suggest that natural disasters may lead partners to grow closer and value their relationship more than usual, but as time passes, these effects fade away and satisfaction falls back to usual levels.

**Trajectories of Distress Following the Great East Japan Earthquake: A Multiwave Prospective Study (*Clinical Psychological Science*, Sept 2020)**

Robin Goodwin and colleagues examined psychological distress in the years following the March 2011 Great East Japan Earthquake, tsunami, and nuclear leak. The yearly responses of 2,599 survivors involving a distress measure (2012–2016) showed four trajectories of distress: resilient (76%), with consistently low distress; delayed distress (8%), with low distress at first but increasing over time; recovery (8%), with high distress at first but decreasing over time; and chronic distress (7%), with consistently high distress. Respondents who did not follow a resilient trajectory were more likely to be male and have less social support.

**Media Exposure to Collective Trauma, Mental Health, and Functioning: Does It Matter What You See? (*Clinical Psychological Science*, Oct 2019)**

<https://journals.sagepub.com/doi/full/10.1177/2167702619858300>

To test how exposure to media coverage of collective trauma contributes to distress, Holman and colleagues surveyed a US sample 2 to 4 weeks after the Boston Marathon bombings (BMB) and again 6 months later. In the first assessment, respondents completed a measure of acute stress (AS) symptoms.

They also reported the amount of time they spent engaged with BMB coverage from different media outlets and whether the content of the media images was graphic (bloody) or nongraphic (chaotic, nonbloody). Six months later, respondents reported posttraumatic stress symptoms (PTSS), rated their fear of terrorism, and reported how often their physical and emotional health interfered with social- and work-related functioning in the prior week (i.e., functional impairment). Respondents who reported greater exposure to graphic images reported more AS symptoms weeks after the BMB, and they reported increased PTSS, fear of future terrorism, and functional impairment 6 months later. Both the amount of exposure to media and the graphic content of the exposure were indirectly associated with functional impairment via increased AS, PTSS, and fear of terrorism. These findings suggest that media-related distress may linger for months, with potentially negative consequences. Given the prevalence and widespread media coverage of mass violence events, Holman and colleagues suggest that these findings may help media outlets make informed decisions about what content to share following collective traumas.

**Collective Emotions and Social Resilience in the Digital Traces After a Terrorist Attack**  
(*Psychological Science*, Mar 2019)

<https://journals.sagepub.com/doi/full/10.1177/0956797619831964>

Social media can give important cues about how people react to collective traumatic events, such as natural disasters or terrorist attacks. Garcia and Rimé analyzed tweets originating from France after the November 2015 terrorist attacks in Paris. During 1 month after the attacks, they collected tweets with specific hashtags referring to the attacks and used them to identify a set of 62,114 user accounts. They then analyzed the content of these users' tweets from April 2015 to June 2016 to identify different word usage before and after the attacks. The researchers measured the frequency of use of (a) positive-affect and negative-affect terms; (b) expressions of sadness, anxiety, and anger; (c) expressions of French shared values (*liberté, égalité, fraternité*); and (d) terms related to prosocial behavior (e.g., *caring, solidarity*). Overall, they found that the increase in negative-affect terms and in expressions of anxiety and sadness immediately after the attacks lasted for over a week. The use of terms related to prosocial behavior and French shared values increased the day after the attacks and remained high in the months after the attacks. This pattern found in social media supports the idea that after a disaster, members of the concerned community talk profusely about it, which can lead to a collective emotion that may ultimately foster prosocial behavior, including solidarity.

**The Value of Stress-Management Interventions in Life-Threatening Medical Conditions** (*Current Directions in Psychological Science*, Aug 2003)

<https://journals.sagepub.com/doi/full/10.1111/1467-8721.01248>

Emotional stress has been associated with the development and progression of several chronic medical conditions. This review summarizes the value of stress-management techniques in the treatment of two important, life-threatening conditions: coronary heart disease and cancer. Results from randomized clinical trials indicate that psychological interventions to help manage stress can improve patients' psychological functioning and quality of life. However, there is limited evidence to suggest that these interventions significantly reduce morbidity and mortality.

**Computer Game Play Reduces Intrusive Memories of Experimental Trauma via Reconsolidation-Update Mechanisms (*Psychological Science*, July 2015)**

<https://journals.sagepub.com/doi/full/10.1177/0956797615583071>

Could playing a simple game help reduce unpleasant intrusive memories? Participants watched a movie containing traumatic material and then recorded the number of film-related intrusive thoughts they experienced in the 24 hours after the movie. Participants then returned to the lab and were assigned to one of four groups. The first two groups completed either a memory-reactivation task by itself or the task followed by a game of Tetris. The second two groups completed either the Tetris game by itself or neither the memory-reactivation task nor the Tetris game. Only the reactivation-plus-Tetris group experienced significantly fewer intrusive memories in the 7 days following the second lab session. This finding suggests that a simple noninvasive cognitive task may be effective at reducing troublesome memories even after memory consolidation has occurred.

**The Course of Adjustment Disorder Following Involuntary Job Loss and Its Predictors of Latent Change (*Clinical Psychological Science*, Apr 2018)**

<https://journals.sagepub.com/doi/full/10.1177/2167702618766290>

Critical life events can lead to emotional and behavioral symptoms reflecting adjustment disorder. Adjustment disorder has different levels of severity, and it usually resolves within 6 months after the precipitating event. To identify the natural course of the disorder, the authors tested participants who had lost their jobs. The first assessment occurred up to 9 months after the job loss, and the second one occurred 6 months later. Participants answered a structured clinical interview and several questionnaires. The authors identified three groups reflecting low, medium, and high symptom severity. The groups with low and medium symptom severity showed a decrease in symptom severity after 6 months. But the group with high symptom severity showed an increase in symptom severity after 6 months. Female gender, older age, less social support, and impaired social functioning were associated with high symptom severity. These results show that some individuals are at higher risk of adjustment disorder and will face more severe symptoms. Thus, prevention measures targeting individuals at high risk might be beneficial.

**Property Damage and Exposure to Other People in Distress Differentially Predict Prosocial Behavior After a Natural Disaster (*Psychological Science*, Feb 2019)**

<https://journals.sagepub.com/doi/full/10.1177/0956797619826972>

After individuals experience a natural disaster, do they show more altruism and cooperation or less? Vardy and Atkinson tested individuals from two communities on the island of Tanna, Vanuatu, 8 months before and 4 months after experiencing a cyclone that destroyed most of Tanna's buildings and left locals without shelter, electricity, or food. Participants had to decide how to distribute 10 coins. They made different types of decisions based on combinations of whether they could allocate money (a) to people from their own or another religion, (b) to people from their own or another village, and (c) to themselves. After the cyclone, participants kept more money for themselves than they gave to others, gave more to individuals with the same religion as theirs, and showed no differences in how they split

the money between members of their own village and members of a different village with the same religion. Participants who experienced property damage were less likely to give to others, but participants who had been exposed to other people in distress were more likely to. This indicates that individuals might adjust their prosocial behavior in response to natural disasters, but the nature of the adjustment depends on how the disaster affected them. These findings are important for predicting postdisaster cooperative behaviors.

### **Cultural Differences in the Impact of Social Support on Psychological and Biological Stress Responses (Sept 2007)**

<https://journals.sagepub.com/doi/full/10.1111/j.1467-9280.2007.01987.x>

The researchers distinguish between explicit social support (seeking and using advice and emotional solace) and implicit social support (focusing on valued social groups). Asians and Asian Americans appear to benefit more psychologically and biologically from implicit social support than from explicit social support, whereas European Americans appear to benefit more from explicit than implicit social support. These findings indicate that there are cultural differences in the construal of relationships, which have implications for social support and delivery of support services.

### **Can People Benefit From Acute Stress? Social Support, Psychological Improvement, and Resilience After the Virginia Tech Campus Shootings (*Clinical Psychological Science*, Sep 2015)**

<https://journals.sagepub.com/doi/full/10.1177/2167702615601001>

Can people experience psychological improvement after exposure to a trauma? This study involved female Virginia Tech students who had completed assessments of anxiety, depression, and social support as part of a sexual-victimization study. They were assessed after the Virginia Tech campus shootings for depression, anxiety, interpersonal-resource gain, social support, and exposure to the event. Modeling revealed that this group had four responses to the shootings: resilience, delayed distress, continuous distress, and improvement. Improvement following trauma was associated with increased social support and interpersonal resources, indicating that trauma can sometimes promote adjustment.

### **Does Early Psychological Intervention Promote Recovery From Posttraumatic Stress? (PSPI, Nov 2003)**

<https://journals.sagepub.com/doi/full/10.1111/1529-1006.01421>

Posttraumatic stress disorder (PTSD) is characterized by re-experiencing symptoms (e.g., intrusive recollections of the trauma, nightmares), emotional numbing, avoidance of reminders of the trauma, and hyperarousal (e.g., exaggerated startle, difficulty sleeping). People vary widely in their vulnerability for developing PTSD in the wake of trauma, and the vast majority of trauma survivors recover from initial posttrauma reactions without professional help. Accordingly, the efficacy of interventions designed to mitigate acute distress and prevent long-term psychopathology needs to be evaluated against the effects of natural recovery.

### **Pain as Social Glue: Shared Pain Increases Cooperation (*Psychological Science*, Sep 2014)**



<https://journals.sagepub.com/doi/full/10.1177/0956797614545886>

Can shared experiences of pain help bring groups together? Small groups of participants completed tasks that induced pain (submerging hands in ice-cold water, performing an upright wall-squat) or similar tasks that did not induce pain (submerging hands in room temperature water, balancing on one leg for 60 seconds). Participants in the pain group reported feeling more bonded to the other group members than did participants in the no-pain group. Follow-up studies indicated that experiences of pain also increased cooperative behavior among group members. The authors hypothesize that pain increases not only the salience of the experienced event, but also the salience of the other people sharing the event, which promotes bonding, solidarity, and cooperation among group members.

**Can Memories of Traumatic Experiences or Addiction Be Erased or Modified? A Critical Review of Research on the Disruption of Memory Reconsolidation and Its Applications (*Perspectives in Psychological Science*, Mar 2017)**

<https://journals.sagepub.com/doi/full/10.1177/1745691616664725>

A growing body of research has suggested that memories can be altered—or possibly erased—during the reconsolidation process, something that would open exciting new avenues in the treatment of disorders such as PTSD and drug addiction. However, a critical review of this field suggests that altering memory in this way may be easier said than done. In order for memory alteration or erasure to take place, the memory must be activated, become destabilized, and then be modified before reconsolidation occurs. The duration of the memory reminder, the age and strength of the memory, and the context in which the memory is retrieved can all impact the success of memory alteration. These boundary conditions will have to be addressed in order for this process to become a viable treatment alternative.

**Weighing the Costs of Disaster: Consequences, Risks, and Resilience in Individuals, Families, and Communities (PSPI, Jan 2010)**

<https://journals.sagepub.com/doi/full/10.1177/1529100610387086>

A review of studies of the psychological consequences of disasters indicates that people in regions remote to a disaster may experience transient distress, but increased incidence of psychopathology is likely only among populations with preexisting vulnerabilities (e.g., prior trauma or psychiatric illness) or actual remote exposure (e.g., loss of a loved one in the disaster). In addition to negative psychological outcomes, disaster outcomes may include psychological resilience. Often, more than half of those exposed experience only transient distress and maintain a stable trajectory of healthy functioning or resilience. This pattern of outcomes can inform the success of interventions. The available research suggests that psychological interventions are more likely to be effective during short- and long-term recovery periods (1 month to several years postdisaster), especially when used in combination with some form of screening for at-risk individuals. Such interventions should also target the maintenance and enhancement of tangible, informational, and social-emotional support resources throughout the affected community.

**The Role of Hedonic Behavior in Reducing Perceived Risk: Evidence From Postearthquake Mobile-App Data (*Psychological Science*, Nov 2016)**

<https://journals.sagepub.com/doi/full/10.1177/0956797616671712>

How does experiencing a disaster affect people's daily behaviors? To study this, the researchers followed participants who had experienced the Ya'an earthquake on April 20, 2013, in southwest China. The researchers used phone data to examine telecommunications and app usage in the timeframe before and after the earthquake. One week after the earthquake, a subset of participants reported how threatened they currently felt by the earthquake. Experiencing a higher level of earthquake intensity was associated with increased use of telecommunications and apps after the earthquake, but only hedonic behavior (e.g., the use of game or music apps) reduced perceived risk. This finding indicates that engaging in hedonic behavior could serve as a useful postdisaster strategy for coping and recovery.

**Is Television Traumatic? Dreams, Stress, and Media Exposure in the Aftermath of September 11, 2001 (*Psychological Science*, Apr 2007)**

<https://journals.sagepub.com/doi/full/10.1111/j.1467-9280.2007.01900.x>

Following a traumatic or stressful event, individuals may have dreams that reflect that experience. As part of a course on dreaming, individuals reported their media exposure and recorded their dreams both prior to and following the terrorist attacks of September 11, 2001. Results indicate changes in dream features following the attacks and a strong relation between exposure to the events on television and changes in dream features after the attacks. These results support a direct association between television viewing and subsequent increases in stress and trauma.