

# News RELEASE

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## Traumatic Memories Recalled Differently by PTSD Sufferers -- Study

Arlington, VA – The brain regions involved in traumatic memories differ in posttraumatic stress disorder (PTSD) sufferers and traumatized people without the disorder, and affect how each group experiences traumatic memories, according to a study in the January 2004 *American Journal of Psychiatry*, the monthly scientific journal of the American Psychiatric Association.

PTSD is a psychiatric disorder that can occur when an individual experiences or witnesses life-threatening events such as terrorist attacks, military combat, natural disasters, serious accidents or violent personal assaults. PTSD frequently occurs in conjunction with related mental disorders.

The study, “The Nature of Traumatic Memories: A 4-T fMRI Functional Connectivity Analysis,” led by Ruth Lanius, M.D., Ph.D., Department of Psychiatry, University of Western Ontario, Canada and an affiliate of the Robart’s Research Institute, found that in people with PTSD, traumatic memories are associated with regions in the brain’s right hemisphere, compared to the left in traumatized people without the disorder. The right hemisphere influences nonverbal memory recall, and the left influences a verbal pattern of memory recall.

These differences explain why PTSD sufferers experience traumatic memories as flashbacks, and traumatized people without PTSD recall traumatic events as ordinary autobiographical memories. Ordinary autobiographical memories are usually recalled as personal narratives whereas flashbacks, unlike verbal narratives, are experienced as fragments of sensory stimuli, such as visual images, sounds or physical sensations.

Recalling traumatic events as flashbacks differs from recalling them as ordinary autobiographical memories: compared with ordinary memories, which can change by repeated recall, flashbacks are experienced as though the event was happening all over again. In the study, people with PTSD reported flashbacks as feeling like “I was back at the scene of the accident” or “It felt like I was back in the past.” Flashbacks can be triggered by internal or external events, often occur spontaneously, and usually cannot be controlled.

“The findings described in this article help us to understand how traumatic memories in PTSD are different from ordinary memories,” said Dr. Lanius.

[“The Nature of Traumatic Memories: A 4-T fMRI Functional Connectivity Analysis,” led by Ruth Lanius, M.D., Ph.D. et al., p. 36, *American Journal of Psychiatry*, January 2004.]

The American Psychiatric Association is a national medical specialty society, founded in 1844, whose 35,000 physician members specialize in the diagnosis, treatment and prevention of mental illnesses including substance use disorders. For more information, visit the American Psychiatric Association web site at [www.psych.org](http://www.psych.org).

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