## Right Now

## A CULTURAL SYMPTOM?

## **Repressed Memory**

RE SOME experiences so horrific that the human brain seals them away, only to recall them years later? The concept of "repressed memory," known by the diagnostic term dissociative amnesia, has long fueled controversy in psychiatry. During the 1980s, claims of childhood sexual abuse based on recovered memories led to a spate of highly publicized court cases. A number of the supposed victims retracted their allegations in the early 1990s, admitting that they had been swayed by therapeutic techniques. Yet the scientific validity of dissociative amnesia has remained contested ground.

In a recent study, professor of psychiatry Harrison Pope, co-director of the Biological Psychiatry Lab at Harvard-affiliated McLean Hospital, put "repressed memory" to the test of time. He reasoned that if dissociative amnesia were an innate capability of the brain-akin to depression, hallucinations, anxiety, and dementia—it would appear in written works throughout history. In collaboration with associate professor of psychiatry James Hudson, Michael Parker, a professor of English at the U.S. Naval Academy, Michael Poliakoff, director of education programs at the National Endowment for the Humanities, and research assistant Matthew Boynes, Pope set out to find the earliest recorded example of a "repressed memory."

The survey yielded various nineteenthcentury instances: best known were *A Tale*  of Two Cities (1859), by Charles Dickens, in which Dr. Manette forgets that he is a physician after his incarceration in the Bastille, and *Captains Courageous* (1896), by Rudyard Kipling, in which "Penn," a former minister, loses his memory after his family perishes in a flood and recalls that trauma only after being involved in a collision at sea. But the survey turned up no examples from pre-modern sources.

The researchers then offered a \$1,000 reward—posted in three languages on more than 30 Internet websites and discussion groups-to the first person to identify a case of dissociative amnesia in any work of fiction or nonfiction prior to 1800. They received more than 100 responses, but none met the "repressed memory" criteria. Although many early texts describe ordinary forgetfulness caused by natural biological processes, as well as instances of individuals forgetting happy memories and even their own identities, there were no accounts of

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an inability to recall a traumatic experience at one point and the subsequent recovery of that memory.

In a report of their findings published in Psychological Medicine, Pope and his colleagues concluded that the absence of dissociative amnesia in works prior to 1800 indicates that the phenomenon is not a natural neurological function, but rather a "culture-bound" syndrome rooted in the nineteenth century. They argued that dissociative amnesia falls into the diagnostic category "pseudo-neurological symptom" (or "conversion disorder")—a condition that "lacks a recognizable medical or neurological basis."

The authors have also refuted a number of alternative hypotheses that might explain their survey results. For instance, they argued, the fact that pre-nineteenthcentury societies may have conceptualized memory differently than we do cannot account for the lack of recorded descriptions of dissociative amnesia. "Our ancestors had little understanding about delusions and hallucinations," Pope points out. "They didn't know about dopamine in the brain or things we now know cause paranoia or auditory hallucinations, but descriptions of hallucinations [appear] in literature for hundreds of years and from all over the world." Similarly, "If an otherwise lucid individual spontaneously develops complete amnesia for a serious traumatic event, such as being raped or witnessing the death of relations or friends," the researchers explained, "a description of such a case would surely be recognizable, even through a dense veil of cultural interpretation" such as spirit possession or some other supernatural event.

What, then, accounts for "repressed memory's" appearance in the nineteenth century and its endurance today? Pope and his colleagues hope to answer these questions in the future. "Clearly the rise of Romanticism, at the end of the Enlightenment, created fertile soil for the idea that the mind could expunge a trauma from consciousness," Pope says. He notes that other pseudo-neurological symptoms (such as the female "swoon") emerged during this era, but faded relatively quickly. He suspects that two major factors helped solidify "repressed memory" in the twentieth-century imagination: psychoanalysis (with its theories of the unconscious) and Hollywood. "Film is a perfect medium for the idea of repressed memory," he says. "Think of the 'flashback,' in which a whole childhood trauma is suddenly recalled. It's an ideal dramatic device."

Shortly after publication of their paper, the investigators awarded the \$1,000 prize to the nominator of Nina, an opera by Dalayrac and Marsollier performed in Paris in 1786. (Forgetting that she saw her lover apparently lying dead after a duel, the heroine waits for him daily at an appointed spot. When the young man

reappears, Nina first seems to recognize him, then doubts his identity, and only slowly accepts him for who he is.) Pope says he and his colleagues were a few years off their threshold of 1800, but he believes their argument holds: "The challenge falls upon anyone who believes that repressed memory is real to explain its absence for thousands of years."

 $\sim$ ASHLEY PETTUS

HARRISON POPE E-MAIL ADDRESS: hpope@mclean.harvard.edu

## WINGED MIMICRY Tinker, Tailor, Robot, Fly



MALL, WINGED INSECTS have a reputation for accidentally buzzing into closed windows or swooping into your eye during a bike ride. But the research of Robert Wood, assistant professor of engineering and applied sciences, may cause you to look twice at your next fly.

Wood has been perfecting a robotic fly whose eventual applications might include locating survivors trapped in mines and spying in wartime. (The research is funded by the Defense AdA breakthrough in microrobotic engineering, this artificial fly weighs as much as a few grains of rice, and may prove useful for search and rescue operations, hazardous environment exploration, environmental monitoring, and reconnaissance.

vanced Research Projects Agency, within the Department of Defense.) Now in his second year at Harvard, he began working on the project while a graduate student at the University of California, Berkeley in the late 1990s. The ambitious undertaking was, in many ways, the

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