

NO THANKS FOR THE MEMORIES: ETHICISTS DEBATE SUPPRESSION OF PAINFUL EXPERIENCES

CLEVELAND, OH – Drugs that numb the sting of painful memories may help prevent the development of post-traumatic stress disorder (PTSD), but their use raises difficult ethical questions, according to research published today in *AJOB Neuroscience*, Volume 7, Issue 9 of *The American Journal of Bioethics* (published by Taylor & Francis).

Scientists have found preliminary evidence that giving drugs such as propranolol after a traumatic experience may lower the chance that the victim will develop the disabling nightmares and flashbacks that characterize PTSD. Ethicists from Case Western Reserve University debate the moral, legal, and medical consequences of such treatments in an special article titled, **“Propranolol and the Prevention of Post-Traumatic Stress Disorder: Is it Wrong to Erase the “Sting” of Bad Memories?”**

“Shortly after a trauma there is a period in which the memory of the event is encoded and consolidated in the brain,” say **Stuart Youngner** and colleagues. “The strength of the memory, as well as its emotional content, is correlated to the release of stress hormones such as adrenaline.”

Youngner and colleagues cite studies that suggest that propranolol can block the effects of adrenaline when used for a short time either before or after trauma, thereby reducing the emotions associated with traumatic memories. Such treatment could help the 5.2 million Americans thought to suffer from PTSD, including the 17% of soldiers returning from Iraq who display symptoms of PTSD and other psychological disorders.

“To date, most research on the disorder has been concerned with treatment to reduce the symptoms,” say Stuart Youngner and colleagues. “More recently, researchers have studied ways to prevent PTSD in individuals who have been exposed to traumatic events but have not yet developed symptoms.”

Critics of such treatment raise concerns that medications which blunt the emotional sting of memories might erase the actual memory of the event. Youngner and colleagues argue that such issues merit further investigation, but point out that the medication has been used safely for blood pressure control for a number of years.

Other critics have raised concerns that the use of medications like propranolol serves to “medicalize” conditions that were previously considered normal human experiences.

“We have witnessed the expansion of the diagnostic conditions of an illness to include more symptoms and include greater numbers of people,” the authors say. They point to expansions in the definitions of depression or attention deficit hyperactivity disorder, trends that have been encouraged by pharmaceutical companies.

But propranolol is an older drug that is no longer under patent protection, so its use for PTSD would be less subject to market pressures, the authors say.

“One of the benefits of propranolol research may indeed be the rehabilitation of an older, widely available, and affordable drug for a new and important use,” the authors say.

About *AJOB Neuroscience*

In 2007, *The American Journal of Bioethics (AJOB)* increased in frequency from 6 issues to 12 issues per year. As part of this expansion, three of the new issues, collectively titled *AJOB Neuroscience*, are devoted to covering critical topics in the emerging field of neuroethics.

Edited by Judy Illes, Director, of the National Core for Neuroethics at the University of British Columbia, these issues (Numbers 1, 5, and 9) explore a new avenue in bioethics and strive to present a forum to:

- Foster international discourse on topics in neuroethics including: regenerative medicine and stem cells in the CNS; developmental disorders; brain death and privacy of thought;
- Provide a platform for debating current issues in neuroethics such as human rights, therapy and enhancement with new CNS interventions; and
- Enable the incubation of new emerging priorities in neuroethics.

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For more information, please contact **Glenn McGee the Editor-in-Chief of *The American Journal of Bioethics***, at the Alden March Bioethics Institute, glenn.mcgee@bioethics.net (email) or 518-262-2639 (phone).

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To submit an article or for editorial information, contact:
Sean Philpott
Executive Editor, *AJOB*
Alden March Bioethics Institute
Albany Medical Center
47 New Scotland Ave. – MC153
Albany, New York 12208
Phone: 518-262-2645
Fax: 518-262-6856
Email: manuscript@bioethics.net

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