ScienceDaily
Your source for the latest research news

Web address:
http://www.sciencedaily.com/releases/2012/03/120320195800.htm

Ethical Considerations of Military-Funded Neuroscience

ScienceDaily (Mar. 20, 2012) — The United States military and intelligence communities have developed a close relationship with the scientific establishment. In particular, they fund and utilize an array of neuroscience applications, generating profound ethical issues.

Neuroscience offers possibilities for cutting edge, deployable solutions for the needs of national security and defence, but are, or at least should be, tempered by questions of scientific validity, consequential ethical considerations, and concern for the relationship between science and security. This debate is explored in an essay by Jonathan D Moreno and Michael N Tennison, published March 20 in the online, open-access journal *PLoS Biology*.

Rapid advances in basic neuroscience over the last decade facilitate many "dual use" applications; those of both military and civilian interest. Neuroscientists who receive military funding may not fully appreciate the potentially lethal implications of their work. This paper seeks to cultivate a culture of dual use awareness, in both the scientific community and the general public.

For example, brain-computer interfaces, which have already been used to make monkeys control walking robots remotely, could enable humans to operate military devices while sheltered from the reality of combat. Also, research suggests that neuromodulation technologies, such as transcranial magnetic stimulation, could be used to enhance or suppress certain neurological capacities of soldiers on the battlefield. In addition, neuroscientific deception detection, while putatively performing better than traditional 'lie-detector' polygraphs, raises questions of reliability and privacy.

The authors suggest that issues such as these "need to be addressed to ensure the pragmatic synthesis of ethical accountability and national security." Just as many nuclear scientists of the time discussed the issues of using of atomic weapons, contributing to the test ban treaties of the 1960s, neuroscientists of today could engage the ethical, legal, and social implications of the militarization of their work.

5

Story Source:

The above story is reprinted from materials provided by **Public Library of Science**.

Note: Materials may be edited for content and length. For further information, please contact the source cited above.

Journal Reference:

1. Michael N. Tennison, Jonathan D. Moreno. **Neuroscience, Ethics, and National Security: The State of the Art**. *PLoS Biology*, 2012; 10 (3): e1001289 DOI: 10.1371/journal.pbio.1001289

Need to cite this story in your essay, paper, or report? Use one of the following formats:

(•) APA

( ) MLA

Public Library of Science (2012, March 20). Ethical considerations of military-funded neuroscience. *ScienceDaily*. Retrieved June 13, 2012, from http://www.sciencedaily.com /releases/2012/03/120320195800.htm

Note: If no author is given, the source is cited instead.