

“Mind Wars: Brain Research and National Defense,”

By [Jonathan Moreno](#)


Global Research, October 29, 2006
Dana Press 29 October 2006

Region: [USA](#)

Theme: [Military and WMD, Police State & Civil Rights](#)



by **Nicky Penttila**
Dana Press Staff Writer

 **Tuesday, Oct. 24, 2006** - In his latest book, “[Mind Wars: Brain Research and National Defense](#),” bioethicist [Jonathan Moreno](#) describes the range of brain-related research U.S. military agencies such as the Defense Advanced Research Projects Agency (DARPA) are paying for. From drugs that could improve soldiers’ abilities and endurance (and others that could bewilder enemies) to devices controlled by or controlling people’s minds, these possible uses of cutting-edge neuroscience will change how wars are fought. As biologists are doing with bio-weaponry and physicists did with nuclear weaponry, Moreno argues, it’s time for neurobiologists — and the rest of us — to get a grip on the ethical and social issues of waging “mind wars” and decide how far we want this battle-science to go.

This book includes a lot of research, a lot of reporting. Is this the first book like this that you’ve done?

A previous book, “Undue Risk,” is related, although in that case I was building on some experience I had as a staff member to a presidential advisory committee. For this one, I guess you could say I sort of bootstrapped from my experience in the area of national security and human experiments, some of which came out of the experience on the advisory committee, some from subsequent work with the White House science, technology, and policy office, and with other advisory groups. And I also became involved in working on the ethics of neuroscience, along with a number of other people, in the last seven or eight years, partly as a result of an invitation to the Dana Foundation’s famous neuroethics workshop in San Francisco.

At the end of that workshop, I sort of had an epiphany. We’d been through a day and a half of really good talks on neuroscience and ethics and how these fields seem to be coming together, and it struck me that we hadn’t once mentioned the national defense uses of neuroscience. It struck me that there’s a lack of awareness on the part of many neuroscientists, especially, about the fact that *all* science is considered fair game with respect to national security needs, and there’s no reason to think that neuroscience should be any different.

I started messing around in the research looking for neuroscience projects that had sponsorship from security agencies or from the Department of Defense. I came up with a lot of hits on “DARPA and neuroscience” and I realized that I then could describe at least the outlines of the possibilities of brain science that national defense agencies might be

interested in. So that's how I began to put the book together. I also had the opportunity, working on this book, to do a little more history of science, in terms of the role of the federal government in the U.S. in encouraging the development of the behavioral sciences.

Like the skinny, groggy men, the conscientious objectors who were test subjects during World War II?

Yes, the conscientious objectors, and others. It is really interesting that basically the behavioral sciences wouldn't have existed in their present form, and certainly wouldn't have moved ahead as quickly, without federal sponsorship. Anyone who knows anything about medicine and science knows that we owe penicillin to World War II, but they may not appreciate that we also owe personality theory to World War II.

A very large proportion of the scientists working in major research universities in the 1950s were supported by federal contracts, in particular national security agency contracts. That extended to work in psychology, and work on hallucinogens and various ways of what came in the 1960s to be called expanding consciousness. So part of the argument in the book is not only that there are a lot of interesting social, ethical, and legal issues around the work that's going on now and is going to go on, but also that this shouldn't surprise us. It's part of an historic thread.

In the book, there's some careful writing about talking to people and the source of your material. Were people unwilling to talk to you?

I really consider myself a member of the establishment, and I think by any fair measure I am, but I did find that — unlike physicists whom I've spoken with about the social issues in nuclear physics, or these days, increasingly, biologists who worry about biosecurity — people who work in neuroscience, at least the people that I spoke to, were *very* reluctant to talk for the record. And I think there are a number of reasons for that.

Part of it is because scientists generally don't want to say something stupid and jeopardize a funding source. Part of it also is that some of them are working in "secured circumstances" — they're not just working for DARPA, which is not a spy agency, but they're working for spy agencies and they didn't want to stumble and say the wrong thing. Part of it also is that, in general, scientists think they're the smartest guys in the room, and even believe that — and I pretty much got this reaction from a couple of people — "Well, this agency, I don't know what their goal is but they're funding important research that's going to help people and I don't think I'm doing anything that's going to be a problem downstream."

So I have a feeling this is going to change when Mind Wars comes out. I also have a feeling that a lot of people aren't going to be very happy with me.

Why do you say that?

People in bioethics are supposed to be gadflies. We're supposed to point out what's going on. And it's hard to do that without looking like you're playing gotcha. So I kind of bent over backwards in the book not to do that. That's not what I'm interested in doing.

Also, there is a big subculture that believes that their brains are being manipulated by insidious forces. Just today I got an email from somebody who is one of these folks who believes that mind control is going on right now and has been since the Sixties. And I'm sure

that many neuroscientists do not want to touch that with a 10-foot pole; they don't want to be identified with any of that stuff. It just makes it a little harder to be taken seriously and it makes it important to be as careful as you can about the way you describe what's going on.

So in the book, I let the cases speak for themselves. I thought that was more responsible and I think it gets the point across better anyway.

Most of the work you describe in the book is funded by DARPA? How much cutting-edge neuroscience applications do you think you're missing?

You know, we don't know what the denominator is. The CIA's budget is black [secret]. But my gut tells me that DARPA is working on the most interesting science, and that the other agencies are more interested in short-term applications of the science.

And it's really difficult for agencies like the CIA or the NSA or the intelligence branches of the armed forces to do much work in universities because most of the major research universities don't permit classified research to be done on campus, although there's some variation in how they handle that.

What kind of variation?

A. It turns out that there really is no standard in the academy about classified research. Several universities, the top places, prohibit it. Some places allow classified research, but they'll create off-campus facilities for it, on the theory that that way it doesn't interfere with the open academic discourse. And some places don't seem to have any policies at all.

That's the sort of question that comes up in the book a lot. It seems like there are a lot of things that have no standards, or for which we haven't talked about standards.

Right. There are definitely a lot of things that are not well-standardized. What you have to do is start with the processes. I suggest at the end of the book a kind of a federal advisory process, to bring disciplines into the room that are relevant.

The problem is with neuroscience it's so multidisciplinary. It's really easy for people not to understand each other. Some of the biologists I spoke to feel they have a contribution to make, but maybe they're in neurobiology, they're really not in neuroscience, per se, so do their voices count?

Neuroscience is a discipline in formation. The boundaries aren't well-established yet.

What do you hope people take away from reading the book?

I think policymakers ought to start focusing on this, not as something that needs to be done tomorrow but in the next few years, that we need to start thinking about more systematically. There are, actually, people on Capital Hill staffs who have degrees in neuroscience I've spoken to about this and they find it intriguing.

For regular readers, the take-home is that it's important to get ahead of this area. It's important for us, in some respects, to do better than we did in other areas in terms of the lay understanding of the science

Are there areas where we've done it wrong?

I've been very involved with the stem-cell issue and, in general, we've done a poor job of explaining what's going on there, what's at stake, to the lay public. Advocacy groups have taken over and driven things. You could say that we've never done well at explaining evolution to people. And there are a lot of examples, such as genetics, where we've let people use phrases like "do you have the gene for" something.

We have a chance here, especially with something that could be so sensitive, to get ahead of things a little bit. For example, when we start talking about devices such as the so-called "brain fingerprinter," as people start hearing more about that, they're going to get more and more concerned about how much these devices can say about what's going on inside their heads. Whenever you talk about the brain, you're getting really intimate. More so than when you're talking about microbes or ionizing radiation.

Is there an example of how we've done it right?

You know, it's funny. I was lecturing at a Howard Hughes [Medical Institute] meeting yesterday, and my colleague and I showed a film from the Bell Labs from the 1950s about genetics. And actually, though it was kind of corny, it was a pretty good basic introduction to what was then understood about genetics. Every schoolchild basically in the country saw this as part of their science curriculum.

I think we did pretty well with genetics, but we got kind of got off-track in the early 1990s when people started talking about gene therapy, because — and it's sort of the problem we have now with now with stem cells — there has been a certain amount of overselling.

I hear a lot of overselling, and as a reporter I pretty much don't believe anything anyone says.

Right. You have to discount it about 50 percent. And I think the problem is there's so much pressure these days because science is so expensive. There's so much pressure on everybody to justify their existence, that there's this tendency to over-promise.

We clearly face the same potential problem in neuroscience. And, in the military context there's the problem of over-scaring people, which again I tried to avoid in the book.

So is there a Bell Labs today that would do a similar film for neuroethics?

There's no place right now that's working on that and I think it would be a hell of a good project, to sort of explain what's going on right now in neuroscience, especially the stuff that's so characteristic of neuroscience, like the use of artificial intelligence, scanning technologies and so forth. It would be really good to have something that explained that to people.

<http://www.dana.org/news/mindwars102406.cfm>

The original source of this article is Dana Press
Copyright © [Jonathan Moreno](#), Dana Press, 2006

[Comment on Global Research Articles on our Facebook page](#)

[Become a Member of Global Research](#)

Articles by: [Jonathan Moreno](#)

Disclaimer: The contents of this article are of sole responsibility of the author(s). The Centre for Research on Globalization will not be responsible for any inaccurate or incorrect statement in this article. The Centre of Research on Globalization grants permission to cross-post Global Research articles on community internet sites as long the source and copyright are acknowledged together with a hyperlink to the original Global Research article. For publication of Global Research articles in print or other forms including commercial internet sites, contact: publications@globalresearch.ca

www.globalresearch.ca contains copyrighted material the use of which has not always been specifically authorized by the copyright owner. We are making such material available to our readers under the provisions of "fair use" in an effort to advance a better understanding of political, economic and social issues. The material on this site is distributed without profit to those who have expressed a prior interest in receiving it for research and educational purposes. If you wish to use copyrighted material for purposes other than "fair use" you must request permission from the copyright owner.

For media inquiries: publications@globalresearch.ca