

# High-tech interrogations may promote abuse

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There is evidence that brain imaging technology is being used to interrogate suspected terrorists despite concerns that it may not be reliable, and that it might inadvertently promote abuse of detainees, according to a Penn State researcher. He says the risk that such technology could license further abuse of detainees remains ever present, given President Bush's March 8 veto of legislation that would have prohibited the CIA from conducting aggressive interrogations.

The technology — functional magnetic resonance imaging or fMRI — has been around since the 1990s. Neurosurgeons routinely use it to scan for brain tumors, and to diagnose and treat various disorders of the central nervous system.

But in recent times, fMRI has gained support from many in the intelligence community, who feel it could be a reliable tool in identifying terrorists from a group of suspects or detecting lies during an interrogation.

After the 9/11 terrorist attacks, military psychologists attached to intelligence units advised interrogators how to increase interrogation stressors and exploit detainees' fears to make suspects talk, according to Jonathan Marks, associate professor of bioethics, humanities and law at Penn State.

"The problem is, if you apply pressure, people will say anything they think will make you stop. And that means anything they think you want to hear," he said.

There are also reports that psychotropic drugs — so-called truth serums — have been administered. The use of brain imaging technologies appears to offer an alternative to such approaches.

The adoption of fMRI is not surprising given the limitations of other lie detection techniques such as a polygraph test, said Marks, whose analysis is published in a recent issue of the *American Journal of Law and Medicine*.

A polygraph relies on detecting accentuated signs of anxiety such as changes in skin conductance, heart rate, and respiration. But it is useless against sociopaths, and those trained to beat it. Counterintelligence experts also say the device is especially unreliable when questions and answers are translated with the help of an interpreter, as has been the case in Iraq.

Intelligence personnel believe fMRI could circumvent such limitations, and some commentators have argued that fMRI could render torture and interrogation obsolete. But Marks, who has critiqued the use of aggressive interrogation techniques in the war on terror, makes a case that "such claims are unfounded, and that the uncritical acceptance of fMRI as an interrogation tool could be potentially hazardous both to the health of the detainee and to the counterterrorism mission."

Unlike a polygraph, an fMRI uses powerful magnetic fields to detect tiny changes in blood oxygen levels in the brain. Since active neurons take up more oxygen than inactive ones, these tiny changes are believed to be signatures of cognitive processes.

Some intelligence experts believe that fMRI can be used to detect deception, or to flag when a suspect recognizes (but may not wish to admit that he recognizes) the photograph or name of a suspected terrorist.

Marks, who also heads the Bioethics and Medical Humanities Program at Penn State's University Park campus, finds the approach problematic. "There can be all sorts of reasons for recognizing a name or a photograph or for responding cognitively to a particular word," he said. "I spent years living in London, listening to reports of IRA bombings. My brain would light up if you mentioned the word semtex (a plastic explosive)."

Interrogations that employ fMRI may also be making a considerable leap of faith. According to Marks, fMRI-based studies of lie detection have only been conducted on small groups of healthy people to examine changes in blood oxygen levels in the brain when they are lying in highly artificial laboratory settings. These results cannot be generalized, he argued, and should not be applied to terror suspects who have usually been detained in stressful circumstances and may have mental health issues that could clearly be exacerbated by their detention.

"MRI machines are very useful diagnostic tools but using them to claim that certain things are going on inside people's minds is a major jump," said Marks, who is also a research fellow and acting director of Penn State's Rock Ethics Institute. Such a jump is a particularly dangerous one in the interrogation context, he argues.

The short duration of the test is another worry. According to the Penn State researcher, many neuroscientists argue that it could take many hours, even weeks, of testing with the suspect before getting accurate baseline readings.

Marks also argues that fMRI scans are open to broad interpretation, but they can produce seductively persuasive graphic images that provide a false sense of security and help create a narrative that may lead to aggressive interrogation tactics.

"One of the real concerns I have is that you can see how people can begin to say 'the fMRI picked him out as a terrorist so let us give him a going over in the interrogation room,' " Marks explained. "Contrary to the view that fMRI will render torture obsolete, it might become a license for further abuse of detainees because its readings will convince people that they have a terrorist on their hands."

The Penn State bioethicist says his view, which draws on the previously unpublished statements of an experienced U.S. interrogator, raises fundamental concerns about the use of fMRI either to detect deception or to flag recognition of a stimulus. If a terror suspect does recognize a certain stimulus, that person could be singled out for more aggressive interrogation.

Source: Penn State

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