

CIA's 'Enhanced Interrogation' Techniques Were Counterproductive

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(PhysOrg.com) -- The author of a new report suggests the belief that harsh interrogation and torture techniques are effective is a form of folk neuroscience that is not supported by scientific evidence, and does not fit with what we know about how the brain works.

The new paper was published in *Trends in Cognitive Sciences* by Professor Shane O'Mara of the Trinity College Institute of Neuroscience in Dublin. The paper reviewed previously secret scientific documents that were released in April, to determine the effect on [memory](#) and brain function of the severe interrogation techniques used by the CIA during the Bush administration.

Professor O'Mara found that so-called "enhanced interrogation" techniques, such as prolonged [sleep deprivation](#), exploiting phobias, being confined in stressful or painful positions, and waterboarding, result in the production of the stress hormones cortisol and the catecholamines.

The scientific evidence shows that areas of the brain most concerned with memory, the [prefrontal cortex](#) and the [hippocampus](#), can be damaged by the stress hormones, and there can be tissue loss if the stress is continued. This makes it less likely for the subject to accurately recall information, and more likely for false memories to replace real ones. If the stress continues long enough the subject becomes unable to distinguish between the real and [false memories](#).

Techniques of this nature are still defended by some intelligence

officers, who consider them able to extract useful information from suspects. Other intelligence officers consider the practices counterproductive because victims supply the information they think the interrogators want to hear in order to make the torture stop.

The same phenomenon was also found in investigations of almost 250 police interrogations in which the accused was convicted and often pleaded guilty even though DNA evidence later proved they were innocent. In many cases the interrogated person had come to believe the police allegations and incorporated them into their own memories as if they were true.

Professor O'Mara's review of the literature on interrogation techniques reported that there is a wealth of literature showing that the extreme stress of severe interrogation and torture compromises [brain function](#) and memory. According to O'Mara these techniques are based on bad science, and they actually destroy memories they are supposed to reveal. There is no way to determine whether information revealed during the interrogation is true or not.

CIA representative George Little criticized the paper, saying that O'Mara did not interview interrogation subjects, and claiming the practice did produce information used by the government to disrupt terrorism activities.

Professor Stephen Soldz of the Boston Graduate School of Psychoanalysis, on the other hand, backed the study, saying that stress has been known for some time to impair cognitive function and memory. Many other studies have suggested severe interrogation techniques can disrupt memory processes, and a spokesman for the group Physicians for Human Rights, Dr Scott Allen, also said he has found no scientific studies supporting the use of these techniques.

The study may also have an application in processing asylum seekers who may have been victims of harsh interrogation or torture, since their memories may have been distorted and there may be inconsistencies in their stories, but this does not mean they are lying.

More information: Torturing the [brain](#): On the folk psychology and folk neurobiology motivating ‘enhanced and coercive interrogation techniques’, *Trends in Cognitive Sciences*, [doi:10.1016/j.tics.2009.09.001](https://doi.org/10.1016/j.tics.2009.09.001)

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