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THE EFFECTS OF PSYCHOLOGICAL TORTURE

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Many interrogation techniques employed at Guantánamo Bay and elsewhere were specifically designed to exploit psychological weaknesses of detainees. Rather than "break" the body, these techniques could "break" the minds of detainees or induce their cooperation with interrogators, while leaving no physical marks. While some interrogation methods have been characterized as harsh or brutal, these descriptions generally rely on lay perceptions of the degree of physical pain associated with techniques like stress positions or exposure to extreme temperatures. In surveying the scientific literature, this paper corrects some persistent misconceptions about torture, concluding that some of the most deleterious effects of "enhanced interrogation techniques" are not physical at all, but distinctly psychological. Yet these effects are no less damaging.

Where did the enhanced interrogation techniques used at Guantánamo originate? In 1963, the Central Intelligence Agency compiled the historical understanding of such non-invasive interrogation techniques into a how-to guide titled *KUBARK Counterintelligence Interrogation*, informally known as the KUBARK manual. The U.S. military used the information to construct a program called Survival Evasion Resistance Escape (SERE) to train members of the military to resist KUBARK techniques, should they be captured and tortured, in order to avoid making a false confession.

In 2002, Dr. Bruce Jessen, a SERE psychologist, "reversed engineered" SERE tactics by adapting training methods to resist torture to develop an "exploitation oriented" approach for use

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by interrogators on detainees at Guantánamo. SERE training includes waterboarding, sleep deprivation, isolation, stress positions, hooding, loud music and flashing lights, treating captives like animals, exposure to extreme temperatures, and forced nudity.[2] One reason why the propriety of such reverse engineering remains a heated question is that the stakes for crossing the line between merely asking questions and committing torture are so high. "As bad as physical torture is, psychological torture can in the long run be much worse," stated Dr. Frank Summers, a psychologist specializing in the effects of severe emotional disturbance. "Because if somebody breaks your leg or breaks your arm, that can heal. But if somebody breaks down your mind, you may never get it back."[3]

The effects of interrogation techniques that leave no lasting physical injuries warrant further clarification. In some circumstances, non-physical techniques may rise to the level of torture as a matter of international and domestic law. However, for psychologists who work with torture survivors, their primary concern is not to make a legal conclusion about abuse to which their patient was subjected but to understand and treat the harm caused by such techniques. Studies of torture victims show that techniques such as sensory overload and sexual humiliation can cause severe psychological pain and suffering. Victims of psychological torture—understood in the literature as torture that leaves no lasting physical marks—report similar levels of pain and suffering as victims of more physically aggressive torture at the time of the abuse, and suffer similar health effects over time. Indeed, one recent study demonstrated that "psychological stressors cannot be easily distinguished from physical torture in terms of their relative psychological impact."[4] Common chronic health effects of psychological torture include post-traumatic stress disorder (PTSD), anxiety, and depression. Going one step further and explaining the severe threat that high stress levels pose to the autonomic nervous system and basic gastrointestinal and circulatory system functioning, Dr. Rona M. Fields, a psychologist with expertise in violence and terrorism, wrote: "There is no longer any basis for arguing" that the use of such techniques "neither does organ damage nor endangers life itself."[5]

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[2] Senate Committee on Armed Services, *Inquiry into the Treatment of Detainees*, xiii.
[3] Telephone Interview with Frank Summers, Ph.D., Training and Supervising Analyst, Chicago Institute for Psychoanalysis (Feb. 25, 2010).
[4] Basoglu, "Torture vs Other Cruel, Inhuman, and Degrading Treatment," 283.
[5] Fields, "Neurobiological Consequences of Psychological Torture," 153.

HOW PSYCHOLOGICAL TORTURE WORKS

Psychological torture breaks down the human mind through a powerful assault on the victim's "basic conditions for mental survival."[6] Psychologists refer to these conditions as "homeostasis," originally a term of physiology referring to the ability of an organism to adjust internally to maintain a stable equilibrium even in response to external changes. Under normal circumstances, an individual will respond to disruptions in homeostasis through periods of readjustment. However, the stress applied in torture, including psychological torture, is designed to elicit "[h]igh levels of arousal *without* the appropriate action that allows arousal to readjust."[7]

While these concepts of homeostasis and readjustment are abstract in concept, their application is quite concrete. Because torture techniques deny different needs of victims, they disrupt homeostasis in different ways. Dr. Uwe Jacobs, a neuropsychologist and expert on the health effects of torture, lays out two examples.[8] First, humans require constantly changing stimuli. When individuals are placed in highly artificial environments that deny them any stimuli, through a technique called sensory deprivation, the individual's "entire arousal system becomes disorganized."[9] To fill the void, a person will invent stimuli. Within only a few hours of sensory deprivation, victims experience hallucinations and other psychotic symptoms.

Second, on the other side of this spectrum, torturers target the complementary human need for *moderation* of stimuli, by placing victims in environments that overwhelm the senses. Under ordinary circumstances, when stimuli become too strong for the human brain to accommodate, an individual will use defense maneuvers to reduce the stress. Humans will naturally seek to evade the stimuli, habituate to it, and distract themselves from it, usually in that order.[10] A technique known variously as sensory overload, sensory bombardment, and sensory assault is designed to couple intense stimuli with disruption of these defense mechanisms. Like sensory deprivation, this requires highly artificial environments—a boombox blasting unfamiliar

[6] Jacobs, "Documenting the Neurobiology of Psychological Torture," 165–67.
[7] Ibid. (emphasis added).
[8] Ibid.
[9] Ibid.
[10] Ibid. at 166.

music at extremely high volume towards a captive in a cell, for example. Dr. Jacobs provides another example:

> Prisoner 063 at the Guantánamo Bay detention facility was reportedly put on a swiveling chair by Major John Leso . . . so that he would be unable to fix his gaze. The prisoner was presumably trying to erect a barrier between himself and his interrogators by maintaining control of this bodily function and refocusing inward.[11]

In response to ongoing shouting from his interrogators, this detainee was attempting to mitigate his stress response through a natural evasion to give himself a chance to readjust to his surroundings. Placement in the swivel chair denied the detainee the ability to accommodate the stressful bombardment.

COGNITIVE AND NEUROLOGICAL EFFECTS OF PSYCHOLOGICAL TORTURE TECHNIQUES

In general, the enhanced interrogation techniques, used singly and in conjunction with one another, significantly raise the risk of post-traumatic stress disorder (PTSD), clinical depression, and anxiety. The psychological and neurobiological sequelae[12] (disease symptoms) of individual techniques can be unique due to the particular ways that a technique disrupts homeostasis, as described below.

Sleep appears to play an important role in essential cognitive processes such as memory and insight formation. Sleep deprivation causes significant cognitive impairments including deficits in memory, learning, logical reasoning, complex verbal processing, and decision-making.[13] Behaviorally, sleep deprivation also results in mood alteration and declines in psychomotor performance.[14] It can alter the course and outcome of depressive disorder, and increases the risk of suicidal ideation and actions.[15]

Sexual humiliation, such as forcing a male detainee to wear women's underwear on his

[11] Ibid.
[12] Sequelae are pathological conditions resulting from previous injury or disease.
[13] Kim, "Effect of Total Sleep Deprivation," 127.
[14] Liebermann, "Effects of Caffeine, Sleep Loss, and Stress," 250.
[15] Billiard, "Is insomnia best categorized as a symptom or a disease?" S35; Breslau, "Sleep disturbance," 411.

head, is strongly correlated with PTSD, depression, nightmares, and flashbacks. But the extreme stress of traumatic sexual humiliation also involves a peculiar sense of self-loss, which Dr. J.P. Wilson, an internationally recognized expert in the field of PTSD, describes as "a loss of self-continuity and self-sameness; a loss of coherent and cohesive sense of self."[16] The process is geared toward inducing in the victim an intense helplessness and stripping the individual of any human dignity. Victims often feel ashamed and hold themselves responsible for violating cultural and religious taboos. It is precisely for this ability to target the very identity of the victim that torturers may employ this technique.

Scholarly surveys of torture survivors demonstrate that threats to the victim or victim's family or friends can induce extreme fear and loss of control, and are strongly correlated over time with PTSD and major depression. Intense anxiety is another major result of such threats, causing dysfunction in social and family settings and raising the risk of self-harm.[17]

Sensory bombardment, through noise and light, triggers shock responses that cause the victim to release stress and pain hormones and chemicals in the brain, which over time encourage the victim to withdraw from reality and lose organization of thought.[18] The technique is often used in conjunction with sleep deprivation, as a sleep disruptor, further harming cognitive functioning. As Dr. Judy Okawa, a clinical psychologist specializing in trauma survival characterizes these effects simply: "People break under this bombardment; our nervous system is not meant to handle it."[19]

Isolation and sensory deprivation risk a host of psychological harms. These techniques encourage dependence on the interrogator, since the victim, desperately seeking human contact, has no one else. Dr. Okawa tells the story of one of her patients kept in prolonged isolation in Kenya:

> He was so desperate to hear the voice of the prison guard—he was only fed once a day, a little bit of oats and gruel—that he stopped accepting his oatmeal in the

[16] Physicians for Human Rights, *Leave No Marks*, 28.
[17] Ibid. at 20; Basoglu, "Psychiatric and cognitive effects," 79–81.
[18] Ising, "Health Effects caused by noise," 5.
[19] Telephone Interview with Judy Okawa, Psychologist, Center for Traumatic Stress Studies (Mar. 3, 2010).

morning, because he was so desperate for the guard to at least chastise him.[20]

Isolation and sensory deprivation may also cause severe anxiety, hallucinations, an inability to think or concentrate, psychosomatic complaints, temporal and spatial disorientation, and psychiatric disorders. Physical responses also manifest, which include loss of motor coordination, abnormal neuroendocrine function,[21] changes in blood pressure, and inflammatory stress responses.

Finally, neurobiologists have documented that psychological torture techniques affect the biology of the human brain. These so-called "non-injurious" techniques can result in a loss of brain mass by inhibiting the regeneration of brain cells. They can also produce abnormal slow wave activity in the brain, which indicates brain pathology and dysfunctional neural tissue. Researchers have also documented that such techniques can cause impairment of the hippocampus (a component of the brain) which plays an important role in spatial navigation and long-term memory.[22]

PHYSICAL V. PSYCHOLOGICAL TORTURE: A DISTINCTION WITHOUT A DIFFERENCE?

Psychological torture shares several characteristics with physical torture. As Professor Almerindo Ojeda explains, in the context of stress positions, psychological torture pertains not to the positions itself, "but to the psychological debilitation they produce in their victims." Nevertheless, "There is no question that prolonged standing, kneeling, and crouching can produce pain and bodily harm that qualify as physical torture."[23] Psychological and physical torture techniques may both cause psychological illnesses including PTSD, anxiety, and depression. And, as Dr. Fields found: "Torture, whether inflicted by physical means such as beatings, or psychological through, for example, environmental manipulation, inflicts pain experienced in the brain and extending from there to all the different organs and physiological

[20] Ibid.
[21] Neuroendocrine functions involve both the nervous and endocrine (hormonal) systems. In the study described, the researchers tested cortisol stress responses to behavioral stress tasks. Cortisol is a natural neuroendocrine steroid the body uses to counteract stress and inflammation. Steptoe, "Loneliness and neuroendocrine, cardiovascular, and inflammatory stress responses," 595.
[22] Catani, "Tortured Brain," 180–84; Fields, "Neurobiological Consequences of Psychological Torture," 146–54.
[23] Ojeda, "What Is Psychological Torture," 3–4.

processes."[24] These similarities can blur the line between psychological and physical torture, prompting psychologists such as Dr. Fields to conclude that the differentiation between psychological and physical torture is not particularly meaningful from the standpoint of injury and treatment.

In other words, the effects of psychological interrogation techniques can extend beyond the obvious and physical, into the cognitive and neurological. Cursory analysis of the techniques based on the level of immediate physical pain they cause is therefore inadequate. Since no other clear dividing line between psychological and physical torture exists, rather than attempt to identify a definitive property that practices must satisfy to be psychological torture, psychologists define psychological torture as severe pain or suffering that occurs as a result of one or several specific *techniques* which are used to break down a detainee psychologically.

The proposed list of offending techniques includes isolation, spatial disorientation (through confinement in small places), temporal disorientation (generally through isolation), sensory disorientation, sensory deprivation, sensory overload (as through bright lights and loud music), induced desperation (by proving to the victim that he or she is entirely helpless), threats, feral treatment (forcing the victim to act like an animal), sexual humiliation, desecration (especially religious), pharmocological manipulation, and psychological debilitation ("breaking down the mind") through stress positions, temperature manipulation, or deprivation of a basic need like food, water, clothes, or sleep.[25]

CONCLUSION

The science of psychology cannot determine whether the "enhanced interrogation techniques" employed against detainees in U.S. custody constitute torture as a matter of law. But the science unequivocally demonstrates that deliberate assaults on the minds of detainees can be even more destructive to their health and psyche than physical assaults.

[24] Fields, "Neurobiological Consequences of Psychological Torture," 139.
[25] Ojeda, "What Is Psychological Torture," 2–3.

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