

On 'modified human agents': John Lilly and the paranoid style in American neuroscience

Description

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"The personal papers of the neurophysiologist John C. Lilly at Stanford University hold a classified paper he wrote in the late 1950s on the behavioural modification and control of 'human agents'. The paper provides an unnerving prognosis of the future application of Lilly's research, then being carried out at the National Institute of Mental Health. Lilly claimed that the use of sensory isolation, electrostimulation of the brain, and the recording and mapping of brain activity could be used to gain 'push-button' control over motivation and behaviour. This research, wrote Lilly, could eventually lead to 'master-slave controls directly of one brain over another'. The paper is an explicit example of Lilly's preparedness to align his research towards Cold War military aims. It is not, however, the research for which Lilly is best known. During the 1960s and 1970s, Lilly developed cult status as a far-out guru of consciousness exploration, promoting the use of psychedelics and sensory isolation tanks. Lilly argued that, rather than being used as tools of brainwashing, these techniques could be employed by the individual to regain control of their own mind and retain a sense of agency over their thoughts and actions. This article examines the scientific, intellectual, and cultural relationship between the sciences of brainwashing and psychedelic mind alteration. Through an analysis of Lilly's autobiographical writings, I also show how paranoid ideas about brainwashing and mind control provide an important lens for understanding the trajectory of Lilly's research."

This article was adapted from a chapter of the PhD thesis *Battles for the Mind: Brainwashing Altered States and the Politics of the Nervous System (1945-1970)*, completed at Birkbeck in 2018.

Abstract

The personal papers of the neurophysiologist John C. Lilly at Stanford University hold a classified paper he wrote in the late 1950s on the behavioural modification and control of 'human agents'. The paper provides an unnerving prognosis of the future application of Lilly's research, then being carried out at the National Institute of Mental Health. Lilly claimed that the use of sensory isolation, electrostimulation of the brain, and the recording and mapping of brain activity could be used to gain 'push-button' control over motivation and behaviour. This research, wrote Lilly, could eventually lead to 'master-slave controls directly of one brain over another'. The paper is an explicit example of Lilly's preparedness to align his research towards Cold War military aims. It is not, however, the research for which Lilly is best known. During the 1960s and 1970s, Lilly developed cult status as a far-out guru of consciousness exploration, promoting the use of psychedelics and sensory isolation tanks.

Lilly argued that, rather than being used as tools of brainwashing, these techniques could be employed by the individual to regain control of their own mind and retain a sense of agency over their thoughts and actions. This article examines the scientific, intellectual, and cultural relationship between the sciences of brainwashing and psychedelic mind alteration. Through an analysis of Lilly's autobiographical writings, I also show how paranoid ideas about brainwashing and mind control provide an important lens for understanding the trajectory of Lilly's research.

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The 'Cold War brainwashing scare'

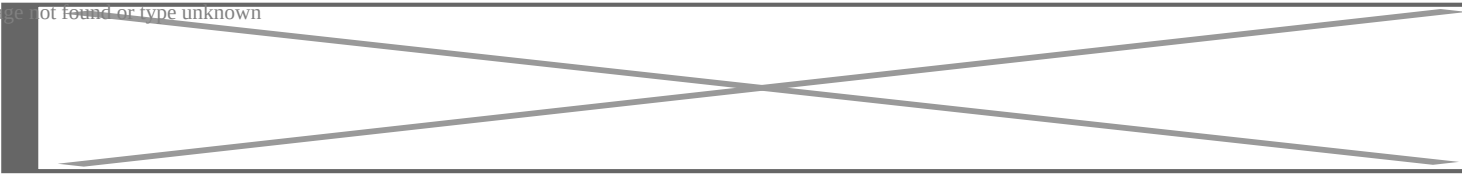
Lilly's appointment to the NIMH came shortly after a new term – *brainwashing* – had been introduced into the English language. The term was first used publicly by journalist [Edward Hunter in an article for the Miami News \(1950\)](#).⁷ In this article and in later works, Hunter claimed that by combining Pavlovian theory with modern technology, Russian and Chinese psychologists had developed powerful techniques for manipulating minds. Although it resonated with concerns about the growing global influence of communism, the term *brainwashing* would perhaps never have gained traction if it had not been for a series of scandals involving collaboration between American POWs and the Chinese enemy during the Korean War. Most famously, in 1952, Colonel Frank Schwable and 35 other captured US Air Force personnel publicly confessed to committing crimes of germ warfare against North Korea. Other accounts of collaboration at the hands of the Chinese, including the making of public anti-war and anti-McCarthy broadcasts, received widespread attention during the war. Perhaps most controversially, after a long-awaited armistice deal was agreed in 1953, one British and 21 American POWs refused to be repatriated after the war, choosing to relocate to communist China instead. It was widely reported that the soldiers had been exposed to sophisticated techniques of mental coercion based on Pavlovian science, similar to those reported to have been used to extract confessions for Soviet purge trials such as that of Cardinal József Mindszenty in 1949 ([Carruthers, 2009](#)).

Scholarship on this period has described the 'Cold War brainwashing scare', the 'brainwashing idea', and the 'spectre of brainwashing', as a central motif in postwar film and literature upon which myriad concerns about agency and influence were projected (for use of these phrases see, respectively, [Carruthers, 1998](#); [Reisch, 2012](#); [Taylor, 2004](#)). Whilst such scholarship has often described brainwashing as a 'cultural fantasy', the idea of brainwashing nonetheless had real effects, not least within the human sciences. In the early 1950s, building on investigations carried out since the Second World War, the CIA established its notorious MKULTRA programme, which aimed, in the words of its former director Sidney Gottlieb, to 'investigate whether and how it was possible to modify an individual's behaviour by covert means' ([Marks, 1978](#): 57). What the historian Alfred McCoy has called 'the Manhattan Project of the mind' was fuelled by a dual sense of hubris about the CIA's own research and development potential and paranoia about the capabilities of the enemy, enhanced, as it were, by the semi-tangible reports of enemy scientific projects within what Melley has called the 'covert sphere' ([McCoy, 2006](#); [Melley, 2012](#)).

According to his own memoirs, Lilly had long been interested in questions of behavioural control. It was reportedly his reading of Aldous Huxley's *Brave New World* in 1934 and its portrayal of the misuse of the human sciences that influenced his decision to major in biology rather than physics as a student ([Lilly, 1997](#)).

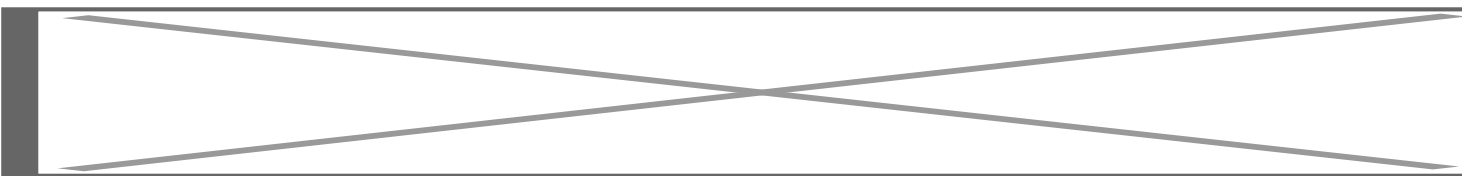
: 57). Although Lilly has somewhat successfully cultivated an image of himself as someone who resisted the lure of military and intelligence funding, like many of his peers, his work and career was heavily shaped by the wider forces shaping the human sciences after the war ([Lutz, 1997](#); [McCoy, 2006](#)).

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*Lilly, 'Special Considerations of Modified Human Agents as Reconnaissance and Intelligence Devices (Committee D, Intelligence and Reconnaissance)', Lilly Papers, Box 54, Folder 17. Exactly when and where this paper was delivered is unclear. In his paper on human manipulation, Lilly implies that both papers were presented at the same place or at connected events: 'In the following discussion I wish to mention a few human cases; a later supplement will mention certain non-human species as possible agents.' It is likely that this work or similar was presented at the Pentagon meeting discussed in Lilly's memoirs ([Lilly, 1997](#): 93–5). According to a former intelligence official's description of this meeting 'Dr. Lilly stated that the potential of this technique in "brain-washing" or interrogation or in the field of controlling the actions of humans and animals is almost limitless': memorandum, Jones to DeLoach, 2, FBI personal file, as quoted in [Burnett \(2016\)](#). However, an old inventory for Lilly's archive from 1992 includes the entry 'Manuscript of Presentation Given to GAP Symposium on Brainwashing Entitled: "Special Considerations of Modified Human Agents as Reconnaissance and Intelligence Devices": November 1956', suggesting that Lilly may have delivered this paper at a meeting for the Group for the Advancement of Psychiatry, which we know he attended ([Group for the Advancement of Psychiatry, 1956](#)). Yet this is further complicated by the fact that both papers include references dated as late as 1958, suggesting the papers in the archive were presented after 1956.

www.ncbi.nlm.nih.gov/pmc/articles/PMC6899429/pdf/10.1177_0952695119872094.pdf



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