2016

Acid Brothers: Henry Beecher, Timothy Leary, and the psychedelic of the century

Jonathan D. Moreno
University of Pennsylvania, morenojd@mail.med.upenn.edu

Acid Brothers: Henry Beecher, Timothy Leary, and the psychedelic of the century

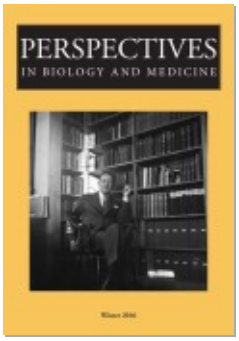
Abstract

Henry Knowles Beecher, an icon of human research ethics, and Timothy Francis Leary, a guru of the counterculture, are bound together in history by the synthetic hallucinogen lysergic acid diethylamide (LSD). Both were associated with Harvard University during a critical period in their careers and of drastic social change. To all appearances the first was a paragon of the establishment and a constructive if complex hero, the second a rebel and a criminal, a rogue and a scoundrel. Although there is no evidence they ever met, Beecher's indirect struggle with Leary over control of the 20th century's most celebrated psychedelic was at the very heart of his views about the legitimate, responsible investigator.That struggle also proves to be a revealing bellwether of the increasingly formalized scrutiny of human experiments that was then taking shape.

Disciplines

Bioethics and Medical Ethics | Neuroscience and Neurobiology | Neurosciences

Acid Brothers: Henry Beecher, Timothy Leary, and the psychedelic of the century



Jonathan D. Moreno

Perspectives in Biology and Medicine, Volume 59, Number 1, Winter 2016, pp. 107-121 (Article)

Published by Johns Hopkins University Press
DOI: https://doi.org/10.1353/pbm.2016.0019

Acid Brothers

Henry Beecher, Timothy Leary, and the psychedelic of the century

Jonathan D. Moreno

ABSTRACT Henry Knowles Beecher, an icon of human research ethics, and Timothy Francis Leary, a guru of the counterculture, are bound together in history by the synthetic hallucinogen lysergic acid diethylamide (LSD). Both were associated with Harvard University during a critical period in their careers and of drastic social change. To all appearances the first was a paragon of the establishment and a constructive if complex hero, the second a rebel and a criminal, a rogue and a scoundrel. Although there is no evidence they ever met, Beecher's indirect struggle with Leary over control of the 20th century's most celebrated psychedelic was at the very heart of his views about the legitimate, responsible investigator. That struggle also proves to be a revealing bellwether of the increasingly formalized scrutiny of human experiments that was then taking shape.

Henry Knowles Beecher, an icon of human research ethics, and Timothy Francis Leary, a guru of the counterculture, are bound together in history by the synthetic hallucinogen lysergic acid diethylamide (LSD). Beecher was a U.S. Army Lieutenant Colonel who received five battle stars, was inducted into the Legion of Merit, held the first endowed chair in his discipline, wrote at least three path-breaking papers, and is honored by two prestigious ethics awards in

Department of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, Blockley Hall, 423 Guardian Drive, Philadelphia, PA 19104.

E-mail: morenojd@mail.med.upenn.edu.

The author wishes to thank Frank Miller, Jillian Moreno, James Rathmell, Dominic Sisti for their comments on earlier versions of this paper. All remaining errors are the author's alone.

Perspectives in Biology and Medicine, volume 59, number 1 (winter 2016): 107–121.

his name. Leary was a West Point dropout who was obliged to leave a research assistant professorship, was convicted of violating the Marihuana Tax Act (a conviction that was later overturned), was sentenced to 20 years in prison and broke out with the assistance of a radical left organization, and after being recaptured did time at Folsom Prison. Both were associated with Harvard University during a critical period in their careers and of drastic social change. To all appearances the first was a paragon of the establishment and a constructive if complex hero, the second a rebel and a criminal, a rogue and a scoundrel. Although there is no evidence they ever met, Beecher's indirect struggle with Leary over control of the 20th century's most celebrated psychedelic was at the very heart of his views about the legitimate, responsible investigator. That struggle also proves to be a revealing bellwether of the increasingly formalized scrutiny of human experiments that was then taking shape.

TUNE IN

In 1938, chemist Albert Hoffman was studying the chemical properties of ergot at the Sandoz Laboratories in Basel, Switzerland, when he synthesized lysergic acid diethylamide (LSD). The hallucinogenic properties of the 25th modification of the chemical structure of ergot were unknown until 1943, when Hoffman took it off his lab shelf and accidentally ingested it through his fingertips (BBC News 2008). This first accidental LSD experience was followed a few days later by an intentional "trip," as the experience would come to be known (the term might have been coined by an intelligence operative). Hoffman reported on his hundredth birthday that it had given him "an inner joy, an open mindedness, a gratefulness, open eyes and an internal sensitivity for the miracles of creation" (Harrison 2006). Though he was enthusiastic about the potential benefits of LSD, by the end of his long life Hoffman also believed that it had been misused by the 1960s counterculture, ruefully referring to the drug as "my problem child" (Hofmann 1980).

At about the same time, Nazi medical doctors were also experimenting with hallucinogens at the Dachau concentration camp, where they administered mescaline to 30 prisoners in an attempt at what would later be called "mind control," but which seemed better suited to interrogation. After the war those experiments came to the attention of the U.S. Naval Technical Mission, which was engaged in identifying potentially useful German science and scientists for removal to the United States, and to that of the new Central Intelligence Agency (CIA), which was interested in various drugs to aid interrogation (Lee and Shlain 1986). The CIA's World War II predecessor, the Office for Strategic Services (OSS), had also investigated potential "truth drugs" like mescaline, scopolamine, and marijuana (Stevens 1988). From the late 1940s through the late 1950s, the CIA continued to pursue similar questions under project code names like ARTICHOKE and BLUEBIRD. LSD was among the drugs included in a 1951 ARTICHOKE

survey document, along with mescaline, morphine, ether, Benzedrine, and ethyl alcohol. Often operating through "front" organizations to conceal the ultimate source of funding even from the investigators themselves, a number of psychiatrists were given CIA contracts to study the puzzling and often unpredictable effects of LSD. The project code-named MK-ULTRA began in 1953. Its project manager, Sidney Gottlieb, was interested in LSD's potential as a disruptor of thought processes, one that could be used against high officials. Over the next few years the agency's indiscriminate and often nonconsensual experiments, caused considerable internal difficulties and disagreements in the CIA (including the death of its anthrax expert Frank Olson in an apparent suicide in 1953), though the "psycho-chemical" experiments continued (then mainly through the Army Chemical Corps) into the mid-1960s (Stevens 1988).

Beecher's connection to drug-induced interrogation and psychotropic drugs began in 1947, when Colonel William Stone, attaché to the U.S. Army Surgeon General, sent him the U.S. Navy Technical Report on Dachau and other concentration camp experiments involving cold exposure in cold water baths and outdoors and high-altitude decompression experiments (McCoy 2007). These experiments were included in the indictment at the Nazi Doctors' Trial that led the judges to frame what posterity knows as the Nuremberg Code. Then in his early 40s, Beecher had returned to Harvard after World War II service where, during the North Africa and Italy campaigns, he made the observations about pain that led to his career-long interest in the placebo effect. As anesthesiologist George Mashour (2005) observes, Beecher's "work on LSD and the evaluation of the effects was consistent with the broader context of his scientific inquiry of psychological meaning and drug response that originated in the war" (70).

In October and November 1951, and again in August 1952, Beecher traveled extensively in Europe to learn what he could from extant work on "ego-depressant drugs," popularly known as "truth serum." With a high security clearance from Army intelligence, his ports-of-call included the British Ministry of Defense in London, Allied Headquarters at Marly-le-Roi, and CIA German headquarters at Camp King in Oberursel. Gradually Beecher focused less on mescaline and the other drugs of interest and more on LSD (which was then viewed mainly as a "psycho-mimetic," mimicking psychotic symptoms), sending regular reports back to the Army Surgeon General. Around that time he also received a grant from the Army's Medical Research and Development Board to begin experimental work on LSD at Massachusetts General Hospital, work that was reported in a couple of papers published several years later, each with several co-investigators from his Anesthesia Laboratory. The Beecher team's findings echoed what the Sandoz chemists had noted in their own early experiments: a subject's response to the drug was associated with the subject's preexisting mood, much as Beecher had earlier observed was true of his wartime patients who were in need of pain control. Although the notion that the "mind-set" and the "setting" are crucial to

one's reaction to LSD is often attributed to Leary, that observation had been made by virtually all the interested experimenters (Mashour 2005).

However, Beecher might not have reported on all his LSD work. Both the United States and Britain were interested in "truth drugs" after World War II, seeing in LSD a solution to the problem of deception in counter-intelligence operations. When Beecher's eminent protégé Louis Lasagna was interviewed about the experiments in 1994 by the President's Advisory Committee on Human Radiation Experiments, he said that the hallucinogens were given to healthy volunteers without informed consent to "see if we could worm out of them secret information." Lasagna said he refused to participate and reflected "not with pride" on the episode (Advisory Committee 1996). Lasagna was a coauthor with Beecher of a 1956 paper entitled "The Response of Normal Men to Lysergic Acid Derivatives," a report on the ability of LSD to mimic the symptoms of psychosis (von Felsinger, Lasagna, and Beecher 1956). The paper did not describe the "truth sera" experiment to which Lasagna referred; apparently that was an additional experiment, a conclusion that would be consistent with Lasagna's claim that he declined to participate in that work.

There is no question that Beecher was in close and continuous contact with Army intelligence and medical officials from the late 1940s to the mid-1950s, but the precise nature of his relationship with the CIA under its director Allen Dulles is less clear. In 2007, a German television documentary alleged that Beecher was responsible for CIA drug experiments (Koch 2007). According to a vigorous editorial discussion between the filmmaker and a commentator on the Wikipedia article about Beecher, this allegation was partly based on a paper that was then forthcoming by historian Alfred W. McCoy (https://en.wikipedia.org/wiki/Talk%3AHenry_K._Beecher). But McCoy's paper, though highly critical of Beecher, does not support that CIA connection beyond noting meetings in which CIA officials, along with representatives of other intelligence agencies, were present (McCoy 2007). The popular history of LSD, *Acid Dreams*, states that Beecher "conducted drug experiments for the CIA" (Lee and Shlain 1986), but the expression "for the CIA" may be taken to mean that the agency was his main point of contact with the intelligence community, or that he was funded by the agency. Neither theory seems to be supported by the available evidence. And a history of LSD in England, *Albion Dreaming*, states that Beecher "had a controversial involvement with psychedelic drugs, having first been involved in CIA mescaline experiments in Germany after World War II" (Roberts 2012, 44). The words *involvement* and *involved* are sufficiently imprecise to allow for all manner of relationships, from funding to correspondence. But Beecher's routine contacts appear to have been with the Army, not the CIA, nor does the agency seem to have been his funding source.

It is a matter of record that the CIA engaged numerous psychiatrists and other physicians, as well as psychologists, as consultants, many of whom are named in

various histories. Had Beecher been one of them, it seems likely he too would have been part of the definitive record. Based on the information available (and it should be noted that many CIA records were destroyed by then-CIA director Richard Helms prior to Senator Frank Church's 1975 investigation), the agency did keep track of Beecher's work and considered him an expert on LSD and "brainwashing." These internal CIA memoranda might be the basis for the widespread conclusion that Beecher was a CIA operative. Through a Freedom of Information Act (FOIA) request, anesthesiologist James Rathmell (2014) has obtained documents from surviving MK-ULTRA files that show that Beecher, with the support of the Army Surgeon General, attempted to initiate a dialogue with the CIA in 1953 but received a cool response. One internal CIA memorandum implies that he was viewed by the agency as too prone to talk about his intelligence connections. In effect, Rathmell argues, after one pro forma meeting in Washington the CIA brushed Beecher off.

But whether Beecher was involved with one intelligence agency or another is of little importance beyond the cachet of the CIA in the popular mind and, it seems, in Beecher's. If Rathmell's interpretation is correct, then Beecher's efforts to associate himself with the glamorous CIA was not the first time that the man from Peck, Kansas, had earnestly endeavored to break into an inner circle. Although it is often asserted that Beecher changed his named from Unangst in order to fit into elite New England society (a claim that the present author has made in previous writings), in fact the name change occurred years before, while Beecher was a University of Kansas undergraduate, apparently as an act of defiance against his father (Gionfriddo 2007). Though there was no connection other than some distantly related Beechers on his mother's side, his new name implied descent from the great family that produced the abolitionist preacher Henry Ward Beecher and his sister, Harriet Beecher Stowe. Though the name change does not appear to have been intended as strategic and Beecher himself preferred not to talk about it, no doubt it proved helpful as the Midwesterner from modest circumstances attempted to remake himself as a Boston Brahmin at Harvard. And there did turn out to be a poetic truth in the Beecher identity. In his later work on research ethics, Beecher became a kind of social reformer himself, mainly through his famous whistle-blower paper in the *New England Journal of Medicine* in 1966. But his views about research ethics were far more complex than that paper alone might indicate.

Turn On

In 1940, while Beecher was settling in at Harvard as the nation's first chaired professor of anesthesiology, Timothy Leary was having a tough time in his plebe year at West Point, earning multiple demerits for violations of academy rules. Partly owing to some clever machinations on Leary's part, an Honors Committee expul-

sion was later reversed, and he was granted an honorable discharge from the Point. His next stop was the University of Alabama, where he did well in classes on psychology and biology until he was expelled for spending a night in the women's dorm. Drafted into the Army, Leary benefitted from the U.S. military's intense interest in psychology, as he was assigned to an academic program and worked in psychometrics at a Pennsylvania hospital, ending up with several medals and the rank of sergeant (Greenfield 2006).

Over the next 15 years, Leary enjoyed professional success but experienced personal tragedy. It is hard to tell if the ragged course of his life as a young man was caused by his erratic behavior, but in retrospect it foretold a temperament well-suited to the social dislocations of the 1960s. He earned a PhD from Berkeley in personality psychology where he was appointed an assistant professor, took a year in Spain on a research grant, and was appointed director of psychiatric research at the Kaiser Family Foundation. In 1955, Marianne Leary committed suicide, leaving him to care for their two young children. Shortly thereafter, while Leary was in Florence, Italy, exhausting his assets after trying to write a novel, Leary came to the attention of David McClelland, who was there on sabbatical. McClelland recruited him to join Harvard's Department of Psychology and Social Relations as a research assistant professor. By then Leary's research interests had turned toward the role of interpersonal relations in personality development and disorders, which fit well with McClelland's interests and with those of other members of the department.

While Leary was in Florence he also had a visit from a former Berkeley colleague, who raved about his experience with "magic mushrooms" in Mexico. Leary had already expressed skepticism about traditional psychotherapy based on his previous research, but he wasn't ready to embrace the notion that these fungi could produce insight. However, after starting his Harvard position in 1960, he took a vacation in Cuernavaca, where he had his first psychedelic experience. Back on campus, he established the Harvard Psilocybin Project with his young colleague Richard Alpert, later known as Baba Ram Dass. The colleagues wanted to determine if psilocybin (which also happened to have been synthesized from mushrooms by Hoffman at Sandoz, and was still legal) could help rehabilitate prisoners, many of whom needed to resolve emotional problems in order to deal with life on the outside. In 1963, Leary claimed a 23% reduction in the recidivism rate, but a subsequent review by Rick Doblin has concluded that there was only a 2.3% reduction, well short of a significant treatment effect (Greenfield 2006).

Far from being outliers, Leary and Alpert's initial work with psilocybin operated under the full approval of department elders like Henry Murray, considered the father of personality theory and the senior psychologist for the OSS during World War II (Lee and Shlain 1986). Murray wrote an assessment of Adolf Hitler that accurately predicted his suicide. Obsessed with the mystical qualities of Herman Melville's *Moby Dick*, Murray had his own rebellious, even bohemian streak.

He had an ongoing conflict with what he considered the unimaginative postwar social science establishment. In the 1950s, he conducted a humiliation experiment with Harvard undergraduates, one of whom was Ted Kaczynski, later known as the Unabomber (Moreno 2014). In addition to Murray, Leary also enjoyed the sage advice of Aldous Huxley, who was lecturing at MIT and participated in psilocybin experiments, although he later dissociated himself from Leary's approach to hallucinogens (Lee and Shlain 1986).

Leary and his graduate students ran monthly psilocybin sessions for a dozen prisoners over nine months, combined with group therapy and personality tests. "According to Leary's findings," writes Don Lattin in *The Harvard Psychedelic Club* (2010), "these follow-up tests showed less depression and hostility, more responsibility and cooperation. More prisoners signed up for the experiment" (62). Leary was far from alone in thinking that hallucinogens could help with psychological problems, especially LSD; if anything, the young Americans were latecomers, as research had been conducted since the early 1950s in both the United States and Europe (Grof 2001). In 1954, psychiatrist Ronnie Sandison published a paper in the *Journal of Mental Science* about Sandoz-supplied LSD for psychotherapy at Powick Hospital in Worcestershire (Roberts 2012). And Joshua Bierer, a pioneer of community psychiatry, published in 1960 a paper in the *Proceedings of the Royal Society of Medicine* called "An Experiment with a Psychiatric Night Hospital" in which he described the LSD treatment of 54 patients (Bierer and Browne 1960). One of Bierer's protégés, the psychiatrist John Buckman, accepted a position at the University of Virginia in 1966, only to discover that legal access to the drug on which he had based his research career had been restricted and, in 1970, prohibited. Like so many others in his generation of psychiatrists, to the end of his life Buckman continued to believe that under certain circumstances LSD-psychotherapy could be helpful for some carefully screened patients (Maurer 2013).

Drop Out

In spite of McClelland's repeated requests for controlled data from their experiments, Leary and Alpert resisted conforming to the trial methodology that was taking hold in the rest of the life sciences world. Finally, other members of the department began to complain that Leary and Alpert were pressuring graduate students into taking hallucinogens. His patience eroding, McClelland called a meeting where social psychologist Herbert Kelman criticized the junior professors' "nonchalant attitude toward these experiments—especially considering the effects these drugs might have on the subjects" (Lattin 2010, 88). Alpert responded that the experiments were in the spirit of William James, who was interested in altered states of consciousness. The next day the *Harvard Crimson* broke the story under the headline "Psychologists Disagree on Psilocybin Research." A day after the *Crimson* story, the *Boston Herald* ran the headline "Hallucination Drug Fought

at Harvard: 350 Students Take Pills," though many were more accurately identified as "subjects" in the story itself. Leary and Alpert agreed to have psychiatrist and health services director Dana L. Farnsworth hold their stock of psilocybin (Greenfield 2006). As the term came to a close for the summer, the matter seemed to be resolved.

However, Leary and Alpert broke the spirit if not the letter of the agreement even before the ink had dried. Leary was the academic adviser for a doctoral student in religion and society named Walter Pahnke, a psychiatrist with a deep interest in hallucinogens. On Good Friday 1962, Pahnke gathered 20 students from the Andover Newton Theological Seminary at Boston University's Marsh Chapel to engage in what was supposed to be a double-blind psilocybin experiment with nicotinic acid as the placebo control drug for half the students, followed by questionnaires to assess whether they had had a mystical experience. The drug was provided by Leary, who had obtained a legal prescription from a local physician. But Leary was critical of the notion that a double-blind study could be done with psychedelics. Indeed, one participant, convinced that he needed to announce the dawning of the Messianic Age, had to be chased down Commonwealth Avenue by MIT philosopher Huston Smith and returned to the chapel where Pahnke gave him a shot of Thorazine (Greenfield 2006).

Over the summer of 1962, Harvard officials worried about the risks Leary and Alpert posed to students. The deal that kept psilocybin under lock and key did not apply to LSD. When classes resumed in the fall, Harvard College Dean John Monro and health services director Farnsworth wrote a joint letter to the *Crimson,* warning students that both LSD and psilocybin "may result in serious hazard to the mental health and stability even of apparently normal persons" (Harrington 1964, 86).[1] Then a new *Crimson* reporter, Andrew Weil, later to achieve fame as an authority on holistic health, asked to be assigned to the story. He, too, was fascinated with psychedelics. He used Harvard stationery to obtain psilocybin pills from a drug distributor and, independently of Leary's group but inspired by them, experimented with the drug. Along with several other undergraduates Weil wrote up reports of their experiences (Lattin 2010).

Weil has since confirmed that he was providing information against Alpert to the Harvard administration. His investigative reporting appeared not only in his college newspaper but also in a *Look* magazine article in November 1963, quite a coup for a young journalist. In that piece, Weil reported that "One Harvard junior told a friend that Alpert had persuaded him to take psilocybin in a 'self-exploratory' session at Alpert's apartment," and that "There were stories of students and others using hallucinogens for seductions, both heterosexual and homosexual" (Lattin 2010, 95). These stories have been disputed by the two young psycholo-

[1]Farnsworth also editorialized against LSD and its kind in *JAMA* and was vice-chair of the National Commission on Marijuana and Drug Abuse from 1971 to 1973 (Saxon 1986). Beecher recruited him for the Ad Hoc Committee on Brain Death in 1968 (Belkin 2014).

gists' defenders, but they had the intended effect. Soon after the *Crimson* exposé ran in May 1963, Alpert was fired for sharing drugs with a student and Leary for failing to meet his classes (Greenfield 2006, 196). They appear to have been the only Harvard faculty members who were fired in the 20th century.

No doubt Henry Beecher observed these developments at his university with keen interest, and not only because these rebellious young psychologists were working with substances that had fascinated him and been part of his research program for more than a decade before Leary arrived in Cambridge. As an investigator who conducted and advocated for randomized controlled trials, he would have noted the lack of rigorous controls in Leary's experiments. Beecher was also concerned that the prerogatives of legitimate and responsible scientific investigators not be contaminated by association with questionable activities. In his 1959 *JAMA* article "Experimentation in Man," Beecher repeatedly alludes to the responsibility of the investigator and approvingly quotes Ladimer: "The responsible professions have a duty to delineate for their own members and for a critically vigilant public the nature of medical research and the limits within which it may be properly undertaken" (Beecher 1959, 111). In 1961 and 1962, while the crisis with the Leary-Alpert psilocybin project was unfolding, he was a member of a Harvard Medical School faculty committee that objected to the Army's insertion of the Nuremberg Code into its research contracts with the medical school. The inclusion of such "principles" was offensive to the committee partly because the Code had its origins in the judicial response to the Nazi concentration camp experiments. Imputing even the possibility of such gross irresponsibility to Harvard scientists was unacceptable (Advisory Committee 1996). Beecher's objections to both the psilocybin project and the Army's contract language proceeded from the same conviction: that legitimate medical science research must be protected from perceptions that it bears any resemblance to experiments that were gross violations of medical ethics. (At the same time, he objected to the imposition of rigid rules on legitimate researchers, including some provisions of the Code.)

Beecher's determination to protect the reputation of legitimate research, and his obvious interest in the whole controversy, was reflected in his response to that argument in a special issue of the *Harvard Alumni Bulletin* in the fall of 1963, after Leary and Alpert had been forced out. Beecher said that there was no reason to think that appropriate experiments could not be done in public view. On the contrary, Beecher wrote that there was "an abundance of support in this field for the able, responsible investigator, at present more than ever before." It's not clear what abundant support Beecher had in mind, nor what he meant by "this field." Perhaps he was thinking about the Army's support of his research a decade before, or federal funding for studies of psychoactive drugs. Like McClellan and the other senior psychology faculty, Beecher also objected to the lack of rigor in Leary's drug experiments: "This reminds me of De Quincy's *Confessions of an English Opium Eater* . . . rather than a present-day scientific study of subjective responses to

drugs" (Lee and Shlain 1986). But as Leary's biographer points out, ever since he first experienced the effects of magic mushrooms in 1960 controlled experiments were of no interest to Leary (Greenfield 2006).

As a member of the medical school faculty, Beecher did not have a direct role in the pressure put on Leary, but as a highly regarded authority on drug experiments, including those involving hallucinogens, his views would have been noted and can only have strengthened the case against both Leary and Alpert. Before his item for the alumni newsletter, Beecher published a paper in *Clinical Pharmacology and Therapeutics* in which he allowed that "there is nothing wrong with the principle of consent," but in pursuit of this aspirational principle "it seems necessary to rely on the knowledge and competence, on the consideration and good will, on the integrity and absolute honesty of the investigator" (Beecher 1962, 141). It was because he appreciated the burden that this philosophy of virtue ethics placed upon the individual investigator that Beecher felt so strongly about repudiating posers like Leary. The fact that the experiments in question could so easily be confused with his own LSD studies—conducted without informed consent according to Louis Lasagna—made it still more imperative that a line be drawn. In Beecher's eyes at least, unlike Leary he was a responsible investigator who could be trusted with the care of human subjects even without their full consent. Yet in defending his experiments, Leary insisted that all of his subjects were "informed volunteers" (Weil 1963). Thus, between the responsible investigator (as Beecher would have defined that term) and informed consent as more protective of human subjects, Beecher's emphasis was on the former, while Leary's was on the latter (though how seriously Leary took a consent standard and what he meant by it is surely open to debate).

In 1966, Beecher published his famous paper, "Ethics and Clinical Research." No psychedelic studies were included in his list of 22 ethically questionable experiments. Perhaps the psychedelic studies of Leary and Alpert were so far beyond the pale that they weren't even worthy of mention as unethical. And Beecher's focus was on research with sick patients, not with healthy, normal volunteers. From his point of view, nothing that Leary and his associates did would have met even a minimal standard of methodological soundness, though his own studies with LSD presumably would have. Beecher did not take his *New England Journal of Medicine* paper as an occasion for self-criticism. Besides his apparently nonconsensual LSD studies, he had more recently conducted studies of the effect of amphetamine and secobarbital (marketed as Seconal) on athletic performance. The drugs were tested against placebo and the results published in the *Journal of the American Medical Association* in 1960 (Smith and Beecher 1960). One of the 15 subjects was Daniel Callahan, later the co-founder of the Hastings Center which established its ethics award in Beecher's name. Callahan recalled the experience in an email to the author:

> When I was a grad student at Harvard in 1960 or so, a notice appeared in the paper that a research project was beginning that called for the participation of former swimmers and runners. I had been a swimmer in college. We were not told the goal of the research or who was running it. What they did was ask us to drink some pink stuff and then swim 100 yards at full speed (4 lengths of the pool) and be timed in the process. We then had a ten or fifteen-minute break and once again had to swim 100 yards, drinking the pink liquid once again. Then a few days later we repeated the whole process. In the first rounds the time for the second swim was always slower than the first one—as would be expected since the time waiting between the two swims was not enough for a good rest.
>
> But we went on to further sequences and suddenly the time for the second swim in the cycle was faster than the first. It became evident that something was different in the 2d pink liquid since it was otherwise implausible that would happen. We were not told what the research was about nor did I know the name of the person directing the swims; and I don't think there was any informed consent. [The published paper states that "The subjects were told that 'pep pills' and placebo were being used."]
>
> Then, around 1971 or so I read Beecher's CV since he was part of our [the Hastings Center's] project on brain death. I noticed in his list of publications a project he had run on amphetamines that had involved swimmers and runners in the early 1960s—and that's how I first learned what the research was and who had run it! Sidney [Dan's wife] recalls it well because I came home after the trials with the faster second dose high, happy, and agitated—and then in a few hours became very nasty. (Personal communication, Nov. 25, 2014)

Beecher took advantage of another opportunity to make his case about psychedelics in 1968, when the Harvard Divinity School's Ingersoll Lecture on Immortality was delivered by Walter Pahnke, the psychiatrist and divinity school graduate who had organized the Easter Sunday psilocybin event six years before. Beecher was invited to respond from the physician's point of view (Beecher 1969). Pahnke was a devotee of the use of LSD with terminally ill cancer patients, which he associated with the nascent bioethical movement in favor of telling grave ill people the truth about their condition. Pahnke hypothesized that their anxiety and despair could be alleviated with the mystical experience that the drug made possible. Then on the staff of the Maryland Psychiatric Research Center, the experiments themselves were conducted at the Sinai Hospital in Baltimore. The Maryland studies were sympathetically depicted in a CBS News television documentary in 1965 (*CBS Reports* 1965). Pahnke (1969) reported that 17 patients had been given LSD and psychotherapy with informed consent, that none were harmed, and that their fears of death was lessened. In an assertion that would have especially interested Beecher, Pahnke said that "Sometimes the need for pain medication was lessened, but mainly because the patient was able to tolerate what pain he felt more easily" (12). Pahnke associated the benefits of the psychedelic

experience for those who fear the loss of selfhood in death with William James's observations about what James had called the "Vaster Consciousness of Reality" in his Ingersoll Lecture 70 years before.

Beecher's response to his fellow physician Pahnke was diplomatic but unyielding on both the methodology and the ethics. Referencing his long experience with "subjective responses," Beecher (1969) wrote that Pahnke's study "was done without controls, and I am sorry about that. . . . We now know how powerful the pain pill, the sugar pill, can be" (21). Surely we would not be surprised that a dying patient taken outdoors on a cool and fresh morning, greeted warmly by physicians and therapists, taken into in a "rosebud warm" treatment room, given a bowl of succulent fruit, played delightful music and surrounded by pictures of his family would have a favorable reaction to the drug, he objected. Nor could the dangers of LSD be waved aside, as Pahnke attempted to do. Beecher argued: "I think one has no right to take a group of young people and administer large doses of LSD to them for experimental purposes unless—and this is a very large 'unless'—one knows that they understand the hazards and truly consent to participation in a proper study under correct circumstances" (23). Here Beecher may have recalled his own unconsented LSD experiments a decade before. Finally, echoing a statement in the Nuremberg Code, Beecher asserted that any poorly designed human experiment is an unethical experiment.

Moreover, Beecher was also concerned that studies like Pahnke's take care to respect the privacy of the patients. Beecher seemed to think that violations of the right to privacy were a special problem in behavioral studies, citing the surge in the production of social scientists and in federal support of social science in the late 1960s. This aspect of Beecher's thinking has gone largely unnoticed, but it is quite revealing, as he seems to have believed that behavioral science was not only especially threatening to basic human rights but also might jeopardize public confidence in scientific research more generally: "It would be most unfortunate if the social scientist became identified with violations of privacy, with snooping" (26). (Perhaps he was thinking of Stanley Milgram's "obedience to authority" and especially Laud Humphrey's "tearoom trade" studies, which had received a great deal of media attention.) The ability of scientists to self-police was being challenged by regulators and legislators who threatened to impose "seriously restrictive and coercive legislation" (26). Indeed, as Beecher would surely have known, influential members of Congress were already proposing a national commission on the subject of human research protections.

Thus, 15 years after his own LSD research, Beecher had come to see poorly designed studies like Leary's and Pahnke's as emblematic of a larger problem facing science. Perceiving the pressures for increased regulation of human studies that his 1966 *New England Journal of Medicine* paper had helped to stimulate, Beecher hoped that scientists could stay ahead of the "restrictive" trends, but he seems not to have been all that optimistic. Although he did not specifically express the point,

studies with substances like LSD, about to be classified as a Schedule 1 drug under the 1970 Controlled Substances Act, could only further confuse the issue and threaten legitimate science. At the very least, Beecher decided, he could flag the kinds of studies that posed the most danger to responsible scientists' prerogatives, including one so publicly described as Pahnke's.

Get Well

Beecher's 1969 exchange in the *Harvard Theological Review* was reprinted two years later in the *Journal of Psychedelic Studies*, of which Leary had been the first editor. Perhaps Beecher was unaware of the plans to republish the discussion. In any case, by then the question of legal research on LSD, psilocybin, mescaline, and the other drugs of such interest to both of them was academic, as their use for any reason—recreational, spiritual or scientific—was illegal. According to the pharmacologist David Nichols (2013), "between the 1950s and mid-1960s more than 1,000 clinical papers were published describing 40,000 patients, several dozen books, and six international conferences on LSD-assisted psychotherapy. All that came to a sudden stop." He argues that the birth of neuroscience itself might be dated to 1954, when LSD was found to affect the serotonin system, an ancient and remarkably versatile neurotransmitter that is crucial for digestion, growth, and reproduction. Modern antidepressants called SSRIs (selective serotonin reuptake inhibitors) increase the availability of serotonin in the brain. As for LSD-assisted psychotherapy and its related spiritual experiences, a generation of stigmatization encased in law is only grudgingly giving way, as organizations like MAPS (the Multidisciplinary Association for Psychedelic Studies) are permitted to conduct well-controlled clinical studies in LSD for anxiety caused by life-threatening illness, as well as experiments with MDMA, marijuana, and ayahuasca (www.maps.org).

The federal government's 1970 determination that these and other substances had significant potential for abuse with no safe and accepted medical use was a response to news reports that unsupervised recreational use was rising rapidly among young people. As the most publicly prominent advocate of LSD, Leary's antics served as a focus for the problem, a situation that Beecher seems to have perceived. His broader fears about the regulation of science were vindicated as well. During the early 1970s, a series of scandals led to the adoption of the Common Rule in 1981, a regime that does not distinguish between behavioral and biomedical research, despite Beecher's biologically centered view that one was a far more unjustified threat to privacy and human rights than the latter. Beecher (himself an IRB chair) would surely have had mixed feelings about the research ethics industry that has grown up since his death, but he would certainly have been among the first to sign onto the renewed interest in LSD and the secrets of the human brain that it might unlock.

As Beecher's interest in research ethics blossomed, did he finally come to see some of his clinical studies as incompatible with those values, including some of

the LSD experiments? Though it is tempting to reach the conclusion that Beecher had a change of heart, there is no direct evidence to support that view. What we do know is that Beecher wanted to protect the virtuous, responsible investigator from what he regarded as excessive regulation that could impede scientific inquiry, and that he saw the activities of people like Leary as a threat to the independence of legitimate science. The outcome of the struggle over the proper use of substances likes LSD in the 1960s signaled the beginning of an era of restrictions on scientific freedom that Beecher feared.

References

Advisory Committee on Human Radiation Experiments. 1996. *Final Report*. New York: Oxford University Press.

BBC News. 2008. "LSD Inventor Albert Hofmann Dies." BBC News, April. 30. http://news.bbc.co.uk/2/hi/europe/7374846.stm.

Beecher, H. K. 1959. "Experimentation in Man." *JAMA* 169: 109–26.

Beecher, H. K. 1962. "Some Fallacies and Errors in the Principle of Consent in Human Experimentation." *Clin Pharmacol Ther* 3: 141–46.

Beecher, H. K. 1966. "Ethics and Clinical Research." *N Engl J Med* 274 (24): 1354–60.

Beecher, H. K. 1969. "Response to Ingersoll Lecture by a Physician." *Harvard Theological Rev* 62 (1): 21–26.

Belkin, G. 2014. *Death Before Dying.* New York: Oxford University Press.

Bierer, J., and I. Browne. 1960. "An Experiment with a Psychiatric Night Hospital." *Proc R Soc Med* 53 (11): 930–34.

CBS Reports. 1965. "The Spring Grove Experiment." Retrieved from https://www.youtube.com/watch?v=0NQRcvVXU1E.

Gionfriddo, M. 2007. "Henry Knowles Beecher: His Life in Part." *Int Anesthesiol Clin* 45 (4): 135–55.

Greenfield, R. 2006. *Timothy Leary.* New York: Harcourt.

Grof, S. 2001. *LSD Psychotherapy.* Sarasota: Multidisciplinary Association for Psychedelic Studies.

Harrington, A. 1964. "A Visit to Inner Space." In *LSD: The Consciousness-Expanding Drug,* ed. D. Solomon and T. Leary, 72–102. New York: Putnam.

Harrison, A. 2006. "LSD: The Geek's Wonder." *Wired.com*, Jan. 16. http://archive.wired.com/science/discoveries/news/2006/01/70015?currentPage=all.

Hofmann, A. 1980. *LSD: My Problem Child.* New York: McGraw-Hill.

Koch, E. R., Director. 2007. *Folterexperten: Die geheimen Methoden der CIA [Torture Experts: The Secret Methods of the CIA].* TV-documentary, SWR. Originally broadcast July 9.

Lattin, D. 2010. *The Harvard Psychedelic Club.* New York: Harper Collins.

Lee, M. A., and B. Shlain. 1986. *Acid Dreams: The CIA, LSD, and the Sixties Rebellion.* New York: Grove Press.

Mashour, G. A. 2005. "Altered States: LSD and the Anesthesia Laboratory of Henry Knowles Beecher." *Bull Anesth Hist* 23 (3): 11–14.

Maurer, D. 2013. "Buckman Aimed for Responsible LSD Protocol." *Charlottesville Daily Progress*, Jan. 24.

McCoy, A. W. 2007. "Science in Dachau's Shadow: Hebb, Beecher, and the Development of CIA Psychological Torture and Modern Medical Ethics." *J Hist Behav Sci* 43 (4): 401–17.

Moreno, J. D. 2014. *Impromptu Man*. New York: Bellevue Literary Press.

Nichols, D. 2013. "Serotonin, and the Past and Future of LSD." *MAPS Bull Special Edition* 20–23. https://www.maps.org/news-letters/v23n1/v23n1_p20-23.pdf.

Pahnke, W. N. 1969. "The Psychedelic Mystical Experience in the Human Encounter with Death." *Harvard Theological Rev* 62 (1): 16.

Rathmell, J. 2014. Lecture: "Henry Knowles Beecher and the Evolution of Ethics in Human Experimentation." *Massachesetts General Hospital*. https://www.youtube.com/watch?v=cUvhmT8f4ng.

Roberts, A. 2012. *Albion Dreaming.* Singapore: Marshall Cavendish.

Saxon, W. 1986. "Dana Lyda Farnsworth, 81; Led Harbard Health Service." *NY Times*, Aug. 5.

Smith, G., and H. K. Beecher. 1960. "Amphetamine, Secobarbital, and Athletic Performance III. Quantitative Effects on Judgement." *JAMA* 172 (15): 1623–29.

Stevens, J. 1988. *Storming Heavan: LSD and the American Dream*. New York: Perennial.

von Felsinger, J., L. Lasagna, and H. K. Beecher. 1956. "The Response of Normal Men to Lysergic Acid Derivatives." *J Clin Exp Psychopathol* 17 (4): 414–28.

Weil, A. 1963. "The Strange Case of the Harvard Drug Scandal." *Look*, Nov. 5.