

# Second thoughts on psychedelic drugs

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Psychedelic drugs are making a comeback. Proponents of psychedelics point to the widespread medical experimentation with mescaline and lysergic acid diethylamide-125 (LSD) in the 1950s as proof of their safety and efficacy. However, a review of the private and published writings of Sidney Cohen, MD, who conducted the first study of the safety of psychedelics, reveals that serious medical concerns about psychedelics arose before the public backlash against the drugs in the 1960s. The story of psychedelic research is a reminder of the inevitable complications involved in testing drugs on human subjects.

Of all the revolutionary psychiatric drugs of the 1950s, none created such excitement as lysergic acid diethylamide-125, commonly known as LSD. Other new drugs, such as tranquilizers and antidepressants, only treated symptoms, but LSD purportedly transformed personalities.

Joel Elkes, then in Birmingham, recalled the drug's dramatic entrance into psychiatry. When he first read about LSD in 1949, he was 'galvanized' by the minuscule dose required – not thousandths of a gram, like most drugs, but millionths of a gram. In 1951 he tried LSD himself and subsequently gave it to volunteers. 'The personal experience was intense and exquisite, and gave one an insight never to be forgotten of the full, mysterious sensation of the full psychedelic experience.' Shortly afterwards he attended a seminar at nearby Powick Mental Hospital, where LSD was being applied in psychotherapy. 'I still remember the astonishment with which I listened to Dr Sandison's paper on the therapeutic effects of LSD-125 ... I had the feeling that I had listened to something important'<sup>1</sup>.

LSD's seeming potential was apparent to other physician-scientists across England, Europe, Canada and the United States. For over a decade they sought to find a use for this remarkable chemical. Different groups attributed different meanings to the drug's effects. Psychiatrists hoped that LSD might unlock the secrets of mental illness. The military-intelligence complex plotted to fashion LSD into a weapon of psychological warfare. Aldous Huxley gave the research a new turn when he defined LSD as a 'mystical' experience. By the decade's end, at the peak of LSD's acceptance, psychotherapists were treating thousands of patients with LSD to overcome neurosis, sexual dysfunction, alcoholism, anxiety,

blocked creativity, and general malaise. Over a thousand articles on LSD were published in medical journals, some boasting 'cure' rates as high as 70 percent<sup>2</sup>.

Before LSD could enter the pharmacopoeia, however, researchers lost control of the drug. Inspired by the writings of Huxley, and later the antics of Timothy Leary, millions of people – an estimated five million in the United States alone – embarked on their own self-experimentation, often with illegally-manufactured LSD. As the counter-culture spread, with its ties to antiwar protests, race riots and student unrest, the medical profession and the government cracked down on the drug movement, suppressing legitimate LSD research in the process.

The United States government's ban on psychedelics was hotly debated. Proponents of psychedelics accused physicians, supposedly panicked by the prospect of social upheaval, of overreacting and exaggerating the evils of LSD. The drug's promise remained unfulfilled, one critic charged, because 'a hyperconservative medical establishment refused to touch it'<sup>3</sup>.

Since the crackdown of the sixties, LSD's supporters have campaigned to have it legalized, or at least to have research legally restored. In the fall of 1996 they scored their greatest victory when voters in Arizona passed a referendum allowing physicians to prescribe drugs such as marijuana and LSD for the terminally ill<sup>4</sup>. But patients in Arizona still will not find LSD in pharmacies because it has not been approved for sale by the United States Food and Drug Administration.

To win FDA approval a drug must establish both its efficacy in curing some human illness and its safety. The history of the first generation of LSD research indicates that LSD will have a hard time meeting either requirement.

Even before the rise of the counter-culture, informed physicians harbored serious doubts about the efficacy and safety of psychedelics. The Food and Drug Administration began to investigate LSD misuse in 1961, before Timothy Leary's LSD crusade. The targets of the FDA probe

were not hippies but Californian physicians and psychologists who were using the drug recklessly<sup>5</sup>. No one knows who tipped off the FDA, but a good guess is that the informer was one of the pioneer LSD researchers himself, Sidney Cohen (Figure 1).

Dr Sidney Cohen was arguably the most thoughtful critic of psychedelics. A look at the early psychedelic movement in the United States through his eyes, in both his published writings and his private letters, reveals why physician-scientists began to have second thoughts about psychedelics. Nothing in Cohen's background predisposed him to oppose psychedelics. He was born in New York City, in 1910, to a Lithuanian-Jewish immigrant family. He earned a BS in pharmacology at Columbia University and an MD from the University of Bonn and then served in the United States Army Medical Corps in the South Pacific during World War II. After his discharge, he practiced medicine in a Veterans Administration hospital for the mentally ill in Los Angeles and taught at the fledgling UCLA School of Medicine. A specialist in internal medicine, not psychiatry, Cohen became intrigued at the hospital by the mental and behavioral side effects of diseases and drugs. After observing that an overdose of a prescribed drug had rendered a patient acutely psychotic and paranoid, he wrote a review in 1953 of all the known psychoses caused by toxins. Here he mentioned LSD for the first time, noting that research showed it produced 'a transient psychosis in all subjects'<sup>6</sup>.

When Cohen finally tried LSD himself on 12 October 1955, the prevailing assumption was that LSD produced a model of psychosis. Expecting to feel catatonic or paranoid, he 'was taken by surprise'. He achieved a transcendent contentment, as if 'the problems and strivings, the worries and frustrations of everyday life vanished; in their place was a majestic, sunlit, heavenly inner quietude ... I seemed to have finally arrived at the contemplation of eternal truth'<sup>7</sup>.

To study the effects of LSD, Cohen sponsored three doctoral dissertations by UCLA graduate students in psychology. Their

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Figure 1 Sidney Cohen

dissertations followed the methodology of earlier investigators by giving subjects under the influence of LSD a battery of psychological and physiological tests. The results mirrored previous studies: age regression, inappropriate affect, inability to concentrate, anxiety and loss of ego boundaries. Questioned later, subjects recalled that in the drug state they had experienced emptiness, loneliness and isolation<sup>8</sup>.

Disappointed by these findings, Cohen shifted to studying the effect of LSD on intellectuals. In 1956 he began giving LSD to English expatriate writers Aldous Huxley and Gerald Heard, prominent figures in the Los Angeles cultural scene. What Cohen hoped to gain from this approach may be seen in his posthumous tribute to Heard: 'We learned from Gerald that, just as in some psychological experiments animals are inappropriate test subjects, so in certain

experiments with the psychedelics ordinary men are inadequate subjects. He was a skilled, articulate observer in entering into an indescribable, surging state, which could fragment some with its intensity and divert others with its entertaining visual displays'<sup>9</sup>.

As volunteers in Cohen's research, Huxley and Heard brought their own agendas to the experiments. In 1956 Huxley had helped invent the word 'psychedelic' in order to emphasize the positive aspects of the drug experience. His books *The Doors of Perception* (1953) and *Heaven and Hell* (1954) proclaimed that the effects of LSD and mescaline were not a model psychosis but rather an elevated state of consciousness ordinarily accessible only to poets, artists and saints.

Inspired by Huxley and Heard, Cohen launched studies of the use of LSD in psychotherapy to treat neuroses, cure alco-

holism, and enhance creativity. Besides Huxley, his work brought him into contact with Bill Wilson, the founder of Alcoholics Anonymous, and Clare Boothe Luce. In a few short years LSD thrust Cohen from relative obscurity into the medical limelight. Thanks to LSD he received television coverage, newspaper headlines, and invitations to national and international conferences.

But Cohen never escaped a nagging doubt that LSD was too good to be true. He worried that every group working with LSD – his own included – had seen highly erratic behavior in some of the subjects – what would later be termed 'freaking out'. Two published reports mentioned subjects committing suicide under the influence of LSD, and rumor had it there were more.

Therefore in February 1959, almost a decade after research in the United States began, Cohen launched a study of the safety of LSD and mescaline. He polled 62 investigators, asking whether any of their subjects had died, committed suicide or suffered mental breakdowns. Forty-four investigators replied, providing data on roughly 5000 individuals who had received 25 000 doses of psychedelics. Investigators reported a few panic attacks, ten psychotic breaks, occasional flashbacks, but no deaths. Though Cohen learned of five suicides, he decided that only two were 'directly due to LSD'. He thus computed that the number of suicides was 0.4/1000. He concluded that complications were 'surprisingly infrequent', and that, when given in a medical setting, LSD and mescaline were 'safe'<sup>10</sup>.

Cohen's article was embraced by LSD activists as a ringing endorsement. His statistic of 0.4 suicides per thousand subjects was widely quoted to prove the drug's harmlessness. Few researchers heeded his reservations or scrutinized his data. Cohen himself acknowledged that his figures were insubstantial. Actually, investigators did not have the information Cohen requested because not one had conducted a follow-up of subjects. Nearly a third of the labs did not even return his questionnaire, and key labs withheld drug mishaps. No one picked up on Cohen's hints that his survey was 'doubtless incomplete' and that he suspected 'serious complications' had been hushed up because of researchers' 'guilt feelings'<sup>10</sup>. In fact, three other deaths from fifties' LSD research have now been documented.

In any event, Cohen's 1959 article was only his first word on the safety of psychedelics. Even before it was published he learned of a local college student who died while experimenting with illicit drugs, including mescaline and LSD, which he and his roommates had somehow obtained. In April 1959 public awareness of psychedelics increased when actor Cary Grant revealed that he had taken LSD over 60 times in therapy<sup>11</sup>. An early LSD fad broke out, as writers, actors, artists and cultural rebels sought out the drug.

The lure of LSD proved irresistible. Though the drug was only authorized for research purposes by physicians, laypersons with access to LSD began setting up therapy practices, often charging as much as \$500 for treatment. Most of these amateur therapists were earnest and sincere, but some had little respect for professional ethics or the law. Cohen privately complained that LSD therapists included 'an excessively large proportion of psychopathic individuals'<sup>12</sup>. Investigators themselves grew somewhat complacent and lax in controlling the drugs. Even physicians began to mix research with recreational use of psychedelics, holding parties at their homes in which they shared psychedelics with their friends.

Legitimate LSD research also suffered guilt by association owing to its appeal to fringe groups. The dissociation produced by psychedelics caused some drug subjects – including Huxley and Heard – to announce that they were experiencing mental telepathy or reliving reincarnation. Psychedelics were seen as a shortcut to cosmic truth, bypassing reason and science in favor of hermeneutic explanations, thereby paving the way for New Age philosophy<sup>13</sup>. Cohen tried to overlook the disturbing pseudo-science of LSD proponents. Likening Huxley and Heard to 'witch doctors and medicine men', he urged a friend that they 'must not retreat' from the opportunities raised by psychedelics 'merely because we feel uncomfortably unscientific'<sup>14</sup>.

But Cohen could not close his eyes to people being harmed by psychedelics. More and more bad reactions came to his attention. He was particularly upset by a middle-aged woman who, after undergoing eight LSD therapy sessions in Hawaii, tried to commit suicide and was admitted to the UCLA Medical Center. In taking her history, Cohen discovered her life had been a long list of abuse, tragedy, mental illness and suicide attempts. He chastised the physician who had administered her LSD, writing, 'Oddly enough, she wants LSD. I told her that she wanted magic and that this would be very risky ... I think she should be considered an LSD failure.' To soften his criticism he later admitted that 'We, too, have our share of hair-raising LSD operations'<sup>15</sup>.

At first Cohen assumed that physicians could police themselves to curb abuses, but this hope faded when he met an LSD bootlegger at a party in 1962 and learned that LSD was being made underground and sold on the black market. Unbeknownst to Cohen, street acid was available as early as 1959. The first men arrested, in 1963, for manufacturing LSD, claimed at their trial that they had been introduced to LSD in medical experiments in Los Angeles and had synthesized it there since 1960.

Once he discovered black market psychedelics, Cohen immediately published warnings about the potential harmful side effects of LSD. He presented nine case studies from which he now concluded that 'the dangers of suicide, prolonged psychotic

reactions, and antisocial acting out behavior exist'<sup>16</sup>. The appearance of his warnings in American Medical Association-sponsored journals signaled the profession's rejection of psychedelic research.

The medical establishment attacked both psychedelics' safety and efficacy. In an editorial accompanying one of Cohen's articles, Roy R. Grinker Sr blasted LSD investigators who 'administered the drug to themselves ... became enamored of the mystical hallucinatory state' and were thus 'disqualified as competent investigators'. He charged that the field of psychedelic research had been hopelessly corrupted 'due to unjustified claims, indiscriminate and premature publicity, and lack of proper professional controls'<sup>17</sup>. In retrospect, the studies touting LSD were so hurried and flawed as to carry little weight, and the alleged therapeutic results are now dismissed as biased. This sloppy science was not so much the result of the character flaws of researchers as it was symptomatic of the grandiosity sometimes produced by psychedelics.

Cohen's warnings on LSD coincided with the thalidomide tragedy, to which the United States Congress responded by progressively tightening regulation of investigational drugs until research on LSD virtually ground to a halt. To curb what was perceived as the nation's drug problem, Cohen was appointed, in 1968, the first director of the National Institute of Mental Health Division of Narcotics Addiction and Drug Abuse. Here he tried to make the public aware that, though psychedelics might be relatively harmless for stable individuals, in safe settings, for the wrong people, in the wrong place, LSD was dangerous. Unfortunately, he realized, people at risk were often the very ones most drawn to the drug. Cohen explained, 'It is seemingly paradoxical, but nevertheless true, that those who are most vulnerable to undesirable adverse reactions are also those who are most attracted to the drug'<sup>18</sup>. Since Cohen's day, research on the safety of LSD has continued, providing answers which remain ambivalent<sup>19</sup>.

Is history relevant to the role of psychedelics in medicine and life? Sidney Cohen thought so. He likened the zeal surrounding LSD to that which greeted opium, laughing gas, and ether in the nineteenth century. These fads, he said, 'remind us that new psychochemicals ... are apt to be overvalued and misused ... The stories of opium, the anesthetics, and cocaine also seem to indicate that the smartest are not necessarily the wisest, and that their drug explorations and fashions may be far from sensible'<sup>20</sup>.

Cohen's comment on the 'smartest' alludes to his ultimate skepticism toward the inflated claims made for psychedelics by Huxley and Heard. If Huxley and Heard had mystical experiences, he decided, it was because they were already mystics, not because LSD cleansed the doors of perception. In truth, LSD offered no new paths. 'A

pill does not construct character, educate the emotions or improve intelligence', Cohen wrote. In fact, the LSD state, he said, was a 'completely uncritical one' with 'the great possibility that the insights are not valid at all and overwhelm certain credulous personalities'<sup>21</sup>. Human existence is complex enough, he counseled, without complicating it further with drugs. To face reality, he advised, 'I would like to commend the sober mind to you'<sup>22</sup>.

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