Flashback: Psychiatric Experimentation With LSD in Historical Perspective

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In the popular mind, d-lysergic acid diethylamide (LSD) research in psychiatry has long been associated with the CIA-funded experiments conducted by Ewen Cameron at the Allen Memorial Institute in Montreal, Quebec. Despite this reputation, a host of medical researchers in the post–World War II era explored LSD for its potential therapeutic value. Some of the most widespread trials in the Western world occurred in Saskatchewan, under the direction of psychiatrists Humphry Osmond (in Weyburn) and Abram Hoffer (in Saskatoon). These medical researchers were first drawn to LSD because of its ability to produce a "model psychosis." Their experiments with the drug that Osmond was to famously describe as a "psychedelic" led them to hypothesize and promote the biochemical nature of schizophrenia. This brief paper examines the early trials in Saskatchewan, drawing on hospital records, interviews with former research subjects, and the private papers of Hoffer and Osmond. It demonstrates that, far from being fringe medical research, these LSD trials represented a fruitful, and indeed encouraging, branch of psychiatric research occurring alongside more famous and successful trials of the first generation of psychopharmacological agents, such as chlropromazine and imipramine. Ultimately, these LSD experiments failed for 2 reasons, one scientific and the other cultural. First, in the 1950s and early 1960s, the scientific parameters of clinical trials shifted to necessitate randomized controlled trials, which the Saskatchewan researchers had failed to construct. Second, as LSD became increasingly associated with student riots, antiwar demonstrations, and the counterculture, governments intervened to criminalize the drug, restricting and then terminating formal medical research into its potential therapeutic effects.

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Highlights

- This article reevaluates the use of hallucinogenic drugs in psychiatry.
- The history of LSD experimentation sheds light on the challenges of incorporating psychedelic drugs into current psychopharmacology.

Key Words: *LSD, neuropsychopharmacology, hallucinogenic drugs*

The therapeutic uses of psychedelic drugs have recently resurfaced as a topic of debate in neuropsychopharmacology. Recent research with the psychedelic drug MDMA, known popularly as "ecstasy," suggests that this psychoactive substance may affect serotonin levels (1). Research units in the US are currently examining the usefulness of MDMA in treating pain in medical conditions such as Parkinson's disease and cancer and in psychotherapy with individuals suffering from PTSD (2). The current debate over the recreational drug ecstasy mirrors a debate that occurred in the 1960s, that is, the debate over the therapeutic uses of LSD. MDMA and LSD share active ingredients, and both alter perception, cognition, and mood (3). Both drugs incite debate as to whether their therapeutic benefit derives from the often-

Abbreviations used in this article

AA	Alcoholics Anonymous
ARF	Addiction Research Foundation
CIA	Central Intelligence Agency
DT	*delirium tremens*
LSD	d-lysergic acid diethylamide
MDMA	3, 4-methylenedioxymethamphetamine
PTSD	posttraumatic stress disorder
SSRI	selective serotonin reuptake inhibitor
US FDA	US Food and Drug Administration

described feeling of heightened self-awareness produced by a psychedelic experience or whether the credit belongs to some as-yet-unknown or, at best, poorly understood metabolic reaction. Given the current preoccupation with rediscovering the possible therapeutic uses of psychedelic drugs, a reconsideration of the controversial history of LSD research in psychiatry is long overdue.

LSD-25 first appeared in the scientific literature in 1943. For nearly a decade, it attracted attention from the medical community for its potential contributions to psychiatric research. Throughout the 1950s, over 500 articles on LSD appeared in scientific journals, and none described the drug in terms of addiction or abuse. During this period, stories of LSD experimentation also occasionally appeared in the North American news media and depicted similarly promising summaries of the drug's contributions to medical research. When Harvard psychologist Timothy Leary was fired in 1962 for his indiscriminant promotion of the drug, the story was national news, but even then, the balance of the articles on LSD remained positive. In 1966, this situation changed dramatically. Newspaper articles about LSD increased, and most warned of the drug's dangers. Medical research soon followed with reports that LSD caused chromosomal damage, fetal abnormalities, and potential memory impairment. That same year, LSD took centre stage in a moral panic over drug use. Federal governments in the US, Canada, the Netherlands, France, and the UK banned the use of LSD—in some cases, without significant debate. Nevertheless, despite the moral panic and political diktats, some medical researchers continued to maintain that LSD had important therapeutic benefits. In fact, they argued that withdrawing LSD from mental health research programs would eliminate one of the most progressive therapy options introduced in the 20th century.

The history of LSD experimentation in psychiatry has been dominated by stories of its covert use by the US military and by the widespread abuse of "acid" by a predominantly US youth culture in the 1960s. These popular images, however, distort its history of clinical experimentation and the professional attitudes in the 1950s toward its medical value (4–7). When archived records from Canadian mental health researchers are examined and oral interviews are conducted with psychiatrists, patients, and volunteers from the early LSD trials, a much more complex history of LSD in psychiatry emerges.

In postwar Saskatchewan, with support from the newly elected Cooperative Commonwealth Federation, LSD experimentation was received positively. Based on their studies of LSD and other hallucinogenic drugs, psychiatrists Humphry Osmond in Weyburn and Abram Hoffer in Saskatoon developed a biochemical theory of schizophrenia. During the 1950s, they applied their research to the treatment of alcoholism and subsequently reported unprecedented rates of recovery after giving alcoholism patients a single intense therapy session culminating with a megadose of LSD. Clinics in British Columbia, California, New York, and Illinois employed similar techniques with analogous results. A small sample of patients' perspectives on the trials, collected more than 40 years after their treatment, offer intriguing personal testimony confirming that LSD cured their alcoholism (anonymous patient, personal communication, 2003 June 16). Although follow-up studies of this nature are fraught with interpretive, ethical, and methodological challenges, the role of LSD in postwar psychiatric experimentation merits a balanced historical reconsideration.

In 1938, in search of a new migraine medicine, Swiss biochemist Albert Hofmann synthesized LSD at the Sandoz Pharmaceutical Laboratories. It was not until 1943, when some of the liquid chemical substance spilled onto his hand, that Hofmann had the first recorded LSD "trip." Three-quarters of an hour after absorbing some of the chemical into his skin, Hofmann experienced growing dizziness, some visual disturbance, and a marked desire to laugh. After about an hour, he asked his assistant to call a doctor and accompany him home from his research laboratory. In Hofmann's mind, he was not on the familiar boulevard that led home but, rather, on a street painted by Salvador Dali—a funhouse roller coaster where the buildings yawned and rippled. Hofmann later wondered whether he had permanently damaged his mind (8,9). Hofmann's serendipitous discovery of the chemical compound LSD introduced a new drug that subsequently inspired a flurry of medical interest (10,11).

LSD's arrival on the medical scene was particularly timely. Throughout the 1950s, thousands of biochemical studies revealed a high level of enthusiasm for the possibility that chemical substances would revolutionize psychiatry by offering novel insights into mental illness. As psychopharmacologist Thomas Ban argued, drug research in the 1950s was responsible for "dragging psychiatry into the modern world" (12, p 79). Indeed, psychopharmacological

research in the 1950s was rewarded with 2 Nobel Prizes. One was awarded to Daniel Bovet for work on antihistamines, and another was awarded to James Black for his identification of histamine receptors. David Healy concludes that nearly all the antidepressants, including the SSRIs and antipsychotics, were developed from the psychopharmacological research that took place in the 1950s (13).

As noted above, these contemporaneous developments inspired confidence that psychopharmacological treatments would not only modernize psychiatry but would also pave the way for fundamental reforms in postwar mental health care. In 1952, for example, the widespread acceptance of antipsychotics was effectively launched by French surgeon Henri Laborit's discovery of chlorpromazine (14). Over the next 3 decades, this drug and its progeny helped empty mental hospitals throughout North America and Europe. Chlorpromazine purportedly reduced psychiatric symptoms in patients to the extent that they could function in the community without institutional care. The consequent dismantling of psychiatric institutions revolutionized mental health care, as increased reliance on drug treatments demonstrated the enormous capacity of psychopharmacology to change its course.

Experiments with LSD began in earnest in the 1950s, alongside research on antidepressants and antipsychotics. Indeed, some LSD trials involved the same investigators who participated in studies of chlorpromazine (15–17). LSD was introduced into this environment on the assumption that biochemistry would provide the discrete tools to eventually unlock the mysteries of the mind. Many scientists believed that LSD would be the drug to do this.

By 1951, more than 100 articles on LSD appeared in medical journals, and by 1961, the number increased to more than 1000 articles. While most articles appeared in English, they also appeared in Japanese, German, Polish, Danish, Dutch, French, Italian, Spanish, Portuguese, Hungarian, Russian, Swedish, Slovene, and Bulgarian, indicating that LSD experimentation was not confined to particular regions or national research cultures. Studies of LSD also appealed to medical researchers employing various methodologies. Some tested its physiological effects on animals; others used human subjects to report on the drug's capacity to bring the unconscious to the conscious; and others engaged in autoexperimentation with the drug. Given its range of applications, mental health researchers experimented with the drug across paradigms. For psychoanalysts, the drug released memories or revealed the unconscious; for psychotherapists, it brought patients to new levels of self-awareness; and for psychopharmacologists, LSD reactions supported contentions that mental disorders had chemical origins. For approximately the next 15 years, medical research investigating LSD proceeded with few interruptions and heightened expectations.

British psychiatrist Humphry Osmond began studying the drug in 1952, after emigrating from London to Weyburn, Saskatchewan. He had arrived in Saskatchewan the previous October, in response to an advertisement in *The Lancet* for a deputy director of psychiatry at the Saskatchewan Mental Hospital. Before taking up this post, Osmond had worked at St George's Hospital in London. There, he developed an interest in biochemical theories of mental disorders but found that this approach was not sufficiently supported in an environment heavily dominated by psychoanalytic theories (18).

In London, Osmond had worked closely with John Smythies and cultivated a keen interest in chemically induced reactions in the human body. With the aid of organic chemist John Harley-Mason, Smythies and Osmond examined the chemical properties of mescaline, the active agent in peyote. Nearly 2 years of research led them to conclude that "mescaline caused symptoms in normal people that were similar to the symptoms of schizophrenia" (J Smythies, personal communication, 2004). Further investigation of the drug suggested to them that mescaline's chemical structure was similar to that of adrenaline. These findings led to their supposition that schizophrenia resulted from a biochemical imbalance that manifested itself in the overproduction of adrenaline. Further, they believed that the imbalance might be caused by a "defect in the metabolism of adrenaline leading to the production in the body of a substance chemically akin to mescaline." (Smythies states that this was the first biochemical theory of schizophrenia, J Smythies, personal communication, 2004). This tantalizing assertion captivated Osmond's interests for the next 2 decades and inspired him to embark on various drug experiments. Osmond and Smythies' colleagues at St George's Hospital were not particularly interested in this biochemical research, but Osmond was intent on continuing the work. One of his colleagues recalled that Osmond "wanted to get as far away from Britain as he could to continue the work for which he had received no encouragement in a largely psychoanalytic environment" (19, p 23). When the opportunity to work in Saskatchewan presented itself, Osmond relocated his family from London to Weyburn and enthusiastically established a research program involving biochemical experimentation.

Within a year after arriving in Saskatchewan, Osmond met Abram Hoffer. Hoffer was also born in 1917, but far from cosmopolitan London. He grew up in a small prairie farming community named after his father, Israel Hoffer (20). He also took a different path into medicine than did Osmond: Hoffer completed a master's degree in agriculture, studying soil chemistry before going into medical school. After completing his medical degree at the University of Toronto, Hoffer began working half-time as a psychiatrist in the Munroe Wing, a psychiatric unit at the Regina General Hospital (21). His other half-time position, with the Department of Public Health,

obliged him to concentrate on psychiatric research (22). In 1952, Hoffer returned to Saskatoon and devoted his full attention to psychiatric research at the provincial university, where he combined his interests in chemistry and medicine.

Hoffer and Osmond soon joined forces and began collaborating over their mutual research interests in biochemical experimentation. Osmond's curiosity with mescaline soon brought him into contact with LSD, which he discovered produced reactions similar to those observed with mescaline. LSD was, however, a much more powerful drug. Early trials indicated that the drug had the potential to improve mental health care, advancing a theory that explained mental illness as the manifestation of metabolic functions. This assertion pointed to the possibility that mental illness was inherently a biological entity and thus could be studied and ultimately treated with the latest medical technology. It suggested that, as with physical illnesses, mental illnesses might be observable through the microscope. In a province committed to establishing sweeping health care reforms, the mere possibility that Saskatchewan-based researchers might be developing cures for mental illness generated unparalleled political support.

By mid-November 1952, Hoffer and Osmond searched for sources of funding. They met colleagues in Ottawa and pitched their research program. Despite a marked level of enthusiasm from the Ontario doctors they met, Hoffer and Osmond returned to Saskatchewan discouraged by fruitless results (23). Mescaline supplies were already on route to Weyburn, but the project had no capacity to hire researchers. Before long, however, Griff McKerracher, director of psychiatric services in the province, delivered encouraging news that the Saskatchewan government would support the research program and provide the necessary start-up funds (24).

With limited resources and uncertainty about the drug's effects, Osmond volunteered to take the first mescaline samples himself in the familiar surroundings of his home. Osmond's reaction confirmed his belief that doctors could learn from mescaline-induced experiences to appreciate distortions in perception: during Osmond's inaugural experiment, his body's reaction to mescaline presented him with a first-hand experience of perceptual disturbances. As the drug took effect, he went for a walk with his wife Jane, to whom he conveyed feelings of paranoia and fear. An excerpt from his report states:

> One house took my attention. It had a sinister quality, since from behind its drawn shades, people seemed to be looking out and their gaze was unfriendly. We met no people for the first few hundred yards, then we came to a window in which a child was standing and as we drew nearer its face became pig-like. I noticed 2 passers-by, who, as they drew nearer, seemed hump-backed and twisted and their faces were covered . The wide spaces of the streets were dangerous, the houses threatening, and the sun burned me (25, p 4).

Astounded by the drug's capacity to suspend his sense of logic, reality, and comfort, Osmond grew more determined than ever to collect others' drug experiences and begin comparing them with patients' perceptions.

Within a year, the research program expanded and started using LSD instead of mescaline. Self-experimentation with LSD convinced Osmond and others that the drug produced reactions similar to those observed with mescaline. LSD, however, was more readily available from the Sandoz Pharmaceutical Company's Canadian branch in Montreal. Moreover, LSD was a more powerful drug—minute doses of LSD generated responses that would have required much higher doses of mescaline. Doses ranging between 25 and 50 mcg of LSD produced profound reactions.

The overwhelming experiences produced by LSD captured Osmond and Hoffer's attention and prompted them to consider the drug's value for psychiatric research. On the one hand, LSD seemed to produce a "model psychosis," which provided a new method for studying symptoms of mental illness. If an illness could be created by taking a chemical substance, then surely, they reasoned, a close biochemical investigation would reveal the metabolic reaction responsible for some (psychotic) illnesses. Conversely, the drug also appeared to have inherent therapeutic qualities that were more difficult to explain. Volunteer subjects and patients involved in the early trials regularly reported that the experience offered new insights, personal enlightenment, or self- reflection that presented individuals with a kind of personal insight or clarity. Although such responses defied Hoffer's biochemical explanations, he and Osmond nonetheless felt that the "mind-manifesting" experiences were worth further consideration.

According to Osmond, the idea of applying LSD to the treatment of alcoholism occurred to him one evening in 1953 while he was working late with Abram Hoffer. They hypothesized that the LSD reaction was also similar to the experience of DT as described by alcoholism patients. Their previous research with alcoholism sufferers suggested that the often frightening and overwhelming experience of DT was the catalyst for many patients to seek help; also, it was often a fatal point in the course of the disease (26). If indeed LSD could create the effect of DT without some of the painful physical effects associated with "hitting bottom," then perhaps the drug could benefit alcoholism patients (27).

In 1953, Hoffer and Osmond tested their theory by treating 2 patients suffering from chronic alcoholism with LSD. Osmond treated one male and one female patient with a single

dose each of 200 mcg of LSD; this rather large dose was used to ensure a strong reaction (D Blewett, personal communication, 2003). Both subjects of the initial study were patients admitted for chronic alcoholism to the Saskatchewan Mental Hospital in Weyburn. Both treatments were considered successful: the male patient stopped drinking immediately after the LSD trial, and the female patient stopped 6 months after the trial (28).

Psychiatrist Colin Smith conducted the next LSD trial on alcoholism in Saskatchewan, involving 24 patients from University Hospital in Saskatoon. After a 3-year follow-up, he published the results in 1958 (29). Patients who volunteered for this treatment had already been diagnosed with chronic alcoholism and agreed to a 2- to 4-week hospital stay. During the first part of their stay, Smith encouraged them to talk about their drinking and explained the objectives of the trial. Although previous research indicated that LSD experiences varied widely from one individual to another, Smith nonetheless made an effort to prepare subjects for the kinds of responses they might expect from the drug. In the final days of their stay, patients received either a single LSD dose ranging from 200 to 400 mcg or 0.5 g of mescaline (30,31). The Saskatoon experiment operated on the theory that one overwhelming experience, that is, simulated DT, had a powerful therapeutic effect. Patients remained in hospital for a few days after the treatment, and Smith strongly encouraged them to continue or renew membership with AA following their discharge (29,32).

The final report from Smith's 24-patient study stated that none of the patients became worse. While 12 patients remained "unchanged," 6 entered the "improved" category, and the other 6 were described as "much improved." Smith's criteria for these categories were as follows: "much improved" meant that the patient completely abstained from alcohol; "improved" meant that the patient significantly reduced alcohol intake and made other lifestyle changes (including securing gainful employment, maintaining relationships with family and friends, and participating in local community activities); and "unchanged" meant that the patient showed little to no change in behaviour (29).

Following the reporting of Smith's study, the Saskatchewan researchers immediately began analyzing the results and composing a scientific explanation. Contrary to their earlier hypothesis that LSD produced a reaction similar to DT, they revised their position and suggested instead that LSD caused an "upsurge of previously repressed material" or that, in some cases, "the effects resembled the state of religious conversion" (33, p 293). A common example of this type of reaction can be seen in one psychiatrist's report, where he explained:

> He [the subject] had a momentary oneness with God. Had a vision while lying [down] with eyes closed of a spiral staircase with himself talking to another person. This appeared to have great meaning to him. . . . He seems to have gained some insight and understanding of himself" (34, anonymous patient reports).

Despite the use of psychoanalytic language to describe the reaction, Smith, Hoffer, and Osmond maintained that their approach was primarily biochemical and secondarily experiential. Eventually, they would refer to the reaction as "psychedelic," which Osmond defined as "mind manifesting," thus distinguishing it from either psychoanalytic or psychopharmacological approaches (35).

The results of these LSD trials appeared in the medical literature and seemed to indicate a better rate of recovery than was offered any other approach, including joining AA or taking antabuse as a form of aversion therapy. Despite their initial optimism, however, colleagues throughout North America began questioning their results. For example, medical researchers at the ARF in Toronto argued that the Saskatchewan trials presented misleading conclusions because they were not controlled trials—a methodological technique that, although not universal in the 1950s, was widely becoming the accepted standard for clinical trials. In an effort to test LSD's capacity to inhibit problem drinking, the ARF conducted its own LSD trial. Researchers Reginald Smart and Thomas Storm contended that the reaction to the drug needed to be isolated to determine its efficacy. In other words, influences from other stimuli needed to be controlled for. As a result, subjects were given the drug and subsequently blindfolded and (or) restrained, and observers were instructed not to interact with the subjects. In this way, investigators were better equipped, in their opinion, to monitor the effects of the drug without controlling for the influence of additional stimuli. Subjects used in the ARF study did show some improvements, but overall, the controlled trial environment demonstrated that LSD did not produce results analogous to those claimed by the Saskatchewan group (36–38).

The researchers in Saskatchewan responded by arguing that the controls applied in the ARF study had the effect of facilitating more frightening reactions in patients by reducing the subjects' comfort level and raising apprehensions about the experiment. Their personal and clinical experiences with LSD indicated that the environment had a significant effect on the results of the trial and that, while this was not the most important factor, it needed to be considered when a subjective experience was evaluated. By placing controls on this important influence, they argued, the ARF study no longer investigated the subject's experience. Instead, it merely measured a reaction, which did not provide useful information to either the observer or the subject.

The debate over the parameters of medicoscientific experiments formed part of a larger debate about the nature of scientific evidence. As Harry Marks and others have observed, the success of a controlled trial depends on a clinician's capacity to effectively design the drug trial and, later, analyze the outcome. Such an exercise involves "a specific cast of mind, an intelligence capable of clear reasoning and unprejudiced judgement" (39, p 29). For his part, Osmond deplored the contemporary faith in controlled trials as the new authorities in clinical research. He stated that "many variables may be held more or less steady, but the pretentious, inaccurate and misleading use of the word 'control' should surely be abandoned and editorial authority could properly be exerted here. Its use has become absurd" (40, p 708). He explained his position by illustrating that faith in the control relaxes the pressure on the observer and reduces the ingenuity demanded of the experimenter, placing instead undue emphasis on concern for isolating reactions. Consequently, the mark of a successful trial has more to do with the capacity of the research designers to isolate a particular reaction; the results, however, do not necessarily provide examiners with useful information. Osmond recommended instead that experiments should be designed to measure all effects first and to apply controls as necessary, in accordance with the consequent establishment of theories based on experiments.

In 1962 psychiatrist Sven Jensen, working in Weyburn, Saskatchewan, published the first controlled trial involving LSD and alcoholism. Rather than creating conditions of sensory deprivation, Jensen used 3 pools of subjects for treatment: the first group of alcoholism patients received group therapy; the second group took LSD at the end of a hospital stay; and the third group received individual psychotherapy from a psychiatrist. In his 2-year study involving follow-up periods of 6 to 18 months, Jensen evaluated patients treated for chronic alcoholism according to 3 different methods. The study results showed that 38 of the 58 patients treated with LSD remained abstinent in the follow-up period. These numbers were striking when compared with those who received only group therapy (7 of 38 remained abstinent) and those who were treated by other psychiatrists (4 of 35 remained abstinent) (41). Jensen presented his study as a controlled trial on the basis of its comparative component. He maintained that this methodology underscored the superiority of the LSD treatment over the other 2 methods and that, moreover, it did not endanger patients by creating conditions known to commonly produce frightening experiences. The comparative approach allowed observers to maintain the emphasis on monitoring complex experiences rather than simple reactions.

Debates continued about acceptable methods for applying controls and measuring results, but the question concerning LSD's efficacy was soon moot. By the mid-1960s, popular news stories told of unheard dangers unleashed by the drug. In April 1966, *The New York Times* shocked readers with the headline, "Police Fear Child Swallowed LSD" (42). According to the article, a girl aged 5 years ingested a sugar cube laced with LSD that her uncle had purchased for his own experimentation. A neighbour noticed the child behaving "wildly" and called the hospital; the uncle was subsequently arrested. Five days later, the front page of *The New York Times* contained the headline, "A Slaying Suspect Tells of LSD Spree: Medical Student Charged in Mother-in-Law's Death (43)." In this case, a medical school dropout, aged 30 years, told police "he had been 'flying' for 3 days on LSD" when he killed his mother-in-law, though he had no recollection of the murder (43, p 1). These 2 anomalous events set the tone for press coverage of LSD for the next 2 years. In 1966, with regular reports of good kids turned bad, LSD soon found itself on the US FDA's list of illegal narcotics. Over the next 2 years, very few researchers managed to obtain government approval for clinical use of the drug. By 1968, LSD research in North America had become criminalized.

The methodological questions raised by clinical LSD experimentation were subsumed in a moral panic over drugs. Popular reports about the drug's dangers gave detractors additional ammunition for undermining LSD treatments on moral and ethical grounds without engaging in the thorny methodological debates over the use of controls in drug trials. Consequently, the history of LSD experimentation in psychiatry often elicits conflated images of dangerousness and unethical medical research but seldom considers the relatively more complicated issues related to cultural influences on medical theory and practice.

By the mid-1960s, the growing popular association of radicalized youth and psychedelic drugs further reinforced LSD's image as a dangerous recreational drug and one, therefore, not worth serious medical attention. Despite repeated protests from certified psychiatrists, governments throughout the Western world criminalized the drug. These decisions profoundly altered the image of psychedelics in popular and medical circles. In Canada, the legal decisions stemmed from recommendations made by the Commission of Inquiry into the Non-Medical Use of Drugs (the LeDain Commission) (44). The LeDain report discounted testimony from individuals who had first-hand experiences with psychedelics. This criterion excluded psychedelic psychiatrists from contributing to debates over the legal status of LSD and, instead, privileged perspectives offered by their professional critics. Consequently, psychedelic psychiatry appeared dangerous, unscientific, and unethical by both popular and legal accounts. In 1966, the Sandoz Pharmaceutical Company (which manufactured LSD) voluntarily ended its distribution of the drug. Sandoz maintained that its legitimate supplies

were not responsible for either the black market or the dangerous side effects but that the "unforeseen public reaction" necessitated the removal of Sandoz LSD (45).

Initially, LSD appealed to medical investigators as an important chemical substance in the pharmacologic revolution. The corresponding promises of biochemical disease concepts and a drug therapy that combated the depersonalization associated with pill-popping solutions made LSD an attractive medical subject. The political culture in Saskatchewan provided tremendous opportunities for initiating experimental theories and practices with political and local support for programs that reformed health care and attracted professionals to underserviced rural communities. The region supported medical research that challenged contemporary assumptions about the classification of mental disorders, about treatment modalities, about professional authority, and about institutionalization. Despite these contributions, psychedelic psychiatry also appeared as an outgrowth of more traditional influences (namely, psychoanalysis and biological psychiatry). Consequently, it emerged in an awkward methodological muddle between changing medical paradigms. MDMA research makes similar therapeutic promises to improve patients' subjective experiences in areas of pain and memory. Perhaps the history of LSD experimentation offers valuable insight into the medical and nonmedical challenges of incorporating psychedelic drugs into today's psychopharmacological medicine.

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Résumé : Flashback : l'expérimentation psychiatrique avec le LSD dans une perspective historique

Dans l'esprit des gens, la recherche psychiatrique sur le diéthylamide de l'acide lysergique (LSD) a longtemps été associée aux expériences financées par la CIA et menées par Ewen Cameron à l'Institut Allen Memorial, à Montréal, au Québec. Malgré cette réputation, une foule de médecins chercheurs de la période suivant la Deuxième Guerre mondiale ont exploré le LSD pour sa valeur thérapeutique éventuelle. Certains des essais les plus importants du monde occidental ont eu lieu en Saskatchewan, sous la direction des psychiatres Humphry Osmond (à Weyburn) et Abram Hoffer (à Saskatoon). Ces médecins chercheurs ont d'abord été attirés par le LSD en raison de sa capacité de produire une « psychose modèle ». Leurs expériences avec cette drogue, qu'Osmond allait qualifier du fameux « psychédélique », les ont amenés à émettre l'hypothèse et à faire la promotion de la nature biochimique de la schizophrénie. Ce court article examine les premiers essais en Saskatchewan, puisant aux dossiers médicaux, aux entrevues avec les anciens sujets de la recherche, et aux articles inédits de Hoffer et Osmond. Il démontre que, loin d'être une recherche marginale en médecine, ces essais sur le LSD représentaient une branche fructueuse et vraiment encourageante de la recherche psychiatrique, qui avait lieu parallèlement aux essais plus célèbres et réussis de la première génération des agents psychopharmacologiques (comme la chlorpromazine et l'imipramine). En fin de compte, ces expériences avec le LSD ont échoué pour 2 raisons, l'une, scientifique et l'autre, culturelle. Premièrement, dans les années 1950 et au début des années 1960, les paramètres scientifiques des essais cliniques ont changé pour s'adapter aux essais contrôlés aléatoires, que les chercheurs de Saskatchewan n'ont pas menés. Deuxièmement, comme le LSD était de plus en plus associé aux émeutes étudiantes, aux manifestations contre la guerre et à la contre-culture, les gouvernements sont intervenus et ont criminalisé la drogue, ce qui a restreint, puis fait cesser la recherche médicale officielle de ses effets thérapeutiques éventuels.