

LSD and the Anguish of Dying

by Sidney Cohen, M.D.

A report on a controversial drug that may one day provide a technique for altering the meaning—and lessening the dread—of dying.

My extinction is not of great consequence at this moment, not even for me. It's just another turn in the swing of existence and nonexistence. I feel it has little to do with the church or talk of death. I suppose that I'm detached—that's it—away from myself and my pain and my decaying. I could die nicely now—if it should be so. I do not invite it, nor do I put it off."

These are the words of a woman dying of cancer. For a single day she was given a minute dose of LSD (lysergic acid diethylamide), the strange drug whose potentialities are only beginning to be defined. The experiment was part of a very limited and still inconclusive research project. The results which I will describe shortly in more detail suggest that LSD may one day provide a technique for altering the experience of dying.

Awesome—and even inspiring—though this possibility is, it is one still limited to a handful of people in a few hospitals where LSD research is conducted under rigid government controls. The need for such caution is understandable in the light of the checkered history of LSD since its discovery. We know today that it is a drug of many uses—and misuses.

They were scarcely imagined by Dr. Albert Hofmann, a biochemist at Sandoz laboratories in

Basel, Switzerland, when he synthesized LSD in 1938. At the time his firm was particularly interested in the ingredients of the dark purple fungus, ergot—a club-shaped, minute chemical factory that spoiled rye fields during a particularly wet European summer. From it, chemists had already extracted migraine relievers and uterine contractants. So it was quite natural for Hofmann to study another of ergot's constituents, lysergic acid, and to make a series of new compounds from it, including the diethylamide of lysergic acid.

On a mid-April afternoon in 1943 he was attempting to separate LSD from its mirror-image isomer—an identical molecule which turned polarized light to the left instead of to the right. Accidentally he inhaled an infinitesimal amount of the new compound.

The experience that followed he later described as "a not unpleasant delirium which was marked by an extreme degree of fantasy. In a sort of trance with closed eyes, fantastic visions of extraordinary vividness accompanied by a kaleidoscopic play of intense coloration continuously swirled about me."

After recovering he realized that the unusual reaction was probably due to the chemical he had been studying. He deliberately took a quarter of a milligram and experienced a second, even stronger, dissociation state.

In the intervening twenty-two years LSD, one of the most powerful drugs known, has had a varied and controversial career. The chief questions debated in the 1950s can be recreated from rather dusty medical journals. These were the

70 LSD AND THE ANGUISH OF DYING

issues: Did LSD cause a toxic delirium or a model psychosis? Was it an intoxication similar to that produced by dozens of other drugs, or was it a schizophrenia in miniature sufficiently safe and reversible to be used as a laboratory device to understand and even find a better treatment for that "scourge of mankind"?*

It took a decade to determine that the "LSD state" was no ordinary drug delirium. But to the disappointment of psychiatric researchers, it also became clear that it does not reproduce the symptoms of schizophrenia faithfully enough to cast light on its cause and cure. However, a few researchers, working with the mentally ill, felt it might be useful to take LSD themselves, believing they could better understand their patients' odd behavior if they became transiently mad.

Madness or Mysticism?

Some of the researchers did indeed induce a temporary insanity in themselves. They also found that LSD produced a condition outside of normal experience which was variously described as blissful, ecstatic, transforming, and full of meaning and perceptual beauty.

The people used as subjects in LSD experiments often spoke of the vibrating undulations of fixed objects, the fresh, vivid glow of ordinary colors, and the enormous slowing down of clock time. More remarkably, instead of experiencing feelings of disorganization and chaos, a number of subjects said they had a sense of integration and unity with the universe as the boundaries of the ego dissolved. Consciousness was not impaired nor was memory disrupted. Instead they seemed exquisitely sensitive to their environment and had an enhanced recall of important events in their past. Some of them claimed that afterward they felt more open, less defensive, less tense, more understanding of themselves and of others.

One of the most vivid and detailed descriptions of such an experience was published in 1954 by the late Aldous Huxley in his book *The Doors of Perception*. "I was now a Not-self," he wrote, "simultaneously perceiving and being the Not-self of the things around me. To this new-born Not-self, the behavior, the appearance, the very thought of the self it had momentarily ceased to be, and of other selves, its one-time fellows seemed . . . enormously irrelevant. . . . I longed to be left alone with Eternity. . . ."

*Then-current studies of LSD were discussed in "Toads, Mushrooms, and Schizophrenia" by Howard D. Fabing, M.D., in *Harper's*, May 1957.

A state such as this has no precise psychiatric name, although Freud did write of the oceanic feeling of the infant prior to its recognition that it is a separate entity. Philosophic and theological literature describe it as "cosmic," "visionary," "mystical," "religious," and "transcendental." Eastern religions are particularly familiar with phenomena of this sort.

A considerable number of people have experienced the transcendental state spontaneously without the use of drugs. Like its chemically induced counterpart it has qualities of indescribability, loss of self, visions of dazzling light and overpowering feelings of awe, bliss, or complete tranquility, and a sense of union with all nature. While the chemically induced state may last for a whole day, the spontaneous event is likely to be only a transcendental flash. But it is much more impressive, for it seems to come out of nowhere. Some of these spontaneous states may be due to derangements of the internal chemistry of the body provoked by fasting, isolation, lack of sleep, or mental exhaustion. However, the more prolonged forms such as satori—the spiritual goal of Zen Buddhism—may be achieved by faithful meditative exercises over extended periods. How this is accomplished remains a mystery still to be explored—perhaps by a new breed of scientists—theochemists or theophysicologists.

Enigmatic though this frontier remains, a good deal has been learned about nerve-cell chemistry and about the transmission system connecting brain cells. LSD has contributed to this knowledge. Psychiatric researchers have also amassed revealing data about illusions, hallucinations, delusions, ego defenses and other facets of personality structure. And we are beginning to understand how—out of the same bottle—both madness and mysticism can be poured.

The key to this riddle lies in the personality of the subject, his reason for taking LSD, the degree to which he trusts those with him and the setting in which it is given. The personality, motivation, and expectations of the investigator also play a part in the result. These factors, of course, influence the effect of every drug acting on the mind. But LSD subjects are exceptionally sensitive and hypersuggestible. Thus if LSD is given to an unstable or overly suspicious person in an im-

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by Sidney Cohen, M.D. 71

personal, insecure situation by someone who seems uninterested or even provocative, it will probably evoke a horrendous mental disorganization. But when a more stable individual takes it in pleasant surroundings, with trusted people around him, then he is likely to experience a pleasurable, if not rapturous state. LSD, then, acts as a trigger releasing a burst of primordial, nonrational psychic activity quite foreign to ordinary mental processes. Whether the burst goes in the direction of a psychotic or of a mystical process depends upon the above factors.

Therapy by Self-transcendence

LSD and drugs like it are now known among scientists as psychotomimetics (mimickers of psychosis) or hallucinogens (producers of hallucinations). In fact, true hallucinations seldom occur, but to "see" something that does not exist is such a spectacular event that the term has been retained.

Research is still under way to determine the therapeutic potential of LSD in treating mental illness. To date it has been tried out experimentally on a great variety of psychologically disturbed patients. Sometimes it has been used as an adjunct to conventional psychotherapy in the expectation that it would make the patient less defensive, improve his memory for "forgotten" traumatic events, indeed, permit him to "re-live" these incidents fully. It was hoped that his relationship with the therapist would be intensified, and help him to perceive the defects in his relationships with the important people in his life.

Other psychiatrists have deliberately given the patient a large dose which would overwhelm him and induce a state of self-transcendence. Perhaps, it was thought, this experience would reduce unrealistic feelings of guilt, increase self-esteem, and provide a sort of psychic death-rebirth experience which would give life and living new importance and meaning. Such an episode is analogous to a religious conversion, and like it, may have either transitory or long-lasting effects.

This theory would seem to have particular validity in the treatment of alcoholics, many of whom are alienated, lonely people searching for a relationship or an experience outside themselves. For example, among six hundred alcoholic patients treated with LSD at University Hospital in Saskatoon, Saskatchewan, Dr. A. Hoffer reports, one-third remained sober and one-fourth improved. Following this report from Canada, sixty alcoholic men are currently being treated with

a single high dose of LSD in an experimental study being conducted by Dr. A. A. Kurland at Spring Grove State Hospital in Baltimore.

No method of using LSD therapeutically has as yet met rigid scientific requirements, which include long-term follow-up and a comparison of patients receiving LSD with a control group who receive identical treatment except for the LSD. But, in truth, no other type of psychotherapy has been fully tested by these exacting standards.

The National Institute of Mental Health is supporting thirteen grants totaling nearly a half-million dollars for studies of LSD in a few selected research centers. (These and a few State Hospitals are the only places in the United States where doctors have access to LSD and the patients are chosen for their appropriateness to the research project rather than their own interest or needs.) At present LSD is not accepted by the psychiatric community as a safe therapeutic tool. Whether it ever will be depends on the outcome of the research now under way.

In Pursuit of Ecstasy

The prospect which, from the research investigator's standpoint seems promising, is beclouded by an increasing vogue for LSD and similar drugs for nonmedical purposes. About three years ago small groups became aware of the transcendental state and it became their prime preoccupation. They call the loss of self induced by LSD "consciousness expansion" although "unconsciousness expansion" would be more accurate. And they have hailed the experience as The Truth, the answer to all problems, the real reality. It is everything for everybody, and everyone—they argue—has the inalienable right to pursue ecstasy via unlimited access to the "psychedelic" (mind-manifesting) drugs—a name they prefer to "hallucinogens," which they regard as too negative.

The most publicized LSD incident occurred at Harvard University in the winter of 1962-63. Timothy Leary and Richard Alpert were relieved of their posts in the psychology department by President Pusey after it was disclosed that they were conducting experiments with LSD and other psychotomimetic drugs on undergraduate students, at times while themselves under the influence of these drugs, and under other conditions that many of their colleagues considered unscientific. Leary and Alpert defended their activities on the grounds that the orthodox scientific method was a "game" they could not play while experimenting with such revolutionary drugs. Later

72 LSD AND THE ANGUISH OF DYING

they set up so-called "consciousness-expanding" colonies in Mexico and New York State.

The resulting publicity contributed to a widespread illicit traffic in LSD and such "natural" hallucinogens as peyote and morning-glory seeds. A brisk black market has come into being; the same pushers who might peddle heroin or goofballs may also be a source of supply for LSD. It is an instance of paradise regained in some back alley. Today considerable numbers of venturesome individuals have consumed LSD either alone, at parties, or in other group settings.

The casual and carefree consumption of this mighty mind-shaker has, at least, provided us with a few very obvious facts. It is clear that unstable people—particularly those with paranoid tendencies—definitely must not take the psychedelic drugs. Others can take them safely only in a hospital under professional supervision. To be sure, many "cubeheads" (LSD is sold saturated on sugar cubes) manage to get away with the experience and have a grand time of it. But for pitifully few of them does it solve any personal problems even after dozens of exposures. And the indiscriminate use of LSD can cause extended psychotic states, severe depressions, suicides, and prolonged paranoid reactions. Doctors see the consequences of such catastrophes in hospital emergency rooms and in the morgue.

The illicit use of LSD is increasing and spreading to new communities and new campuses. Meanwhile the government has tightened restrictions on the legal use of the drug, and research continues under difficulties.

Surrender to Extinction

What follows is an account of a single experiment in a study involving only a few individuals. The treatment is not invariably successful. But as a result of these investigations a good deal is becoming known about the nature of the psychic encounter with death and how LSD might affect it.

"Ah, yes, I see what you have done. You have stripped away ME. This is a touch of death—a preparation for the big one when the No-Me will be more permanent," she said quietly.

It was Irene talking. She had been dying, all too slowly of a cancer of the rectum which recurred two years after major surgery and X-ray treatments. Now it had spread beyond the range of surgical hope. Her liver and bones were involved. Nothing was to be done except to keep the pain down. But despite large doses of narcotics and sedatives she continued to be agitated and

tearful while awake, moaning and tossing in her drugged sleep. Her sister and doctor asked whether anything more could be done to help her through the fear-ridden process of dying. LSD was suggested with some hesitation because it had been given to only one person in a similar situation. The doctor hoped that the drug might—at least for a few hours—set aside her absorption with herself and the prospect of death. If her awareness could be focused beyond herself perhaps she might learn that her obliteration, soon to come, need not be a thing of terror. So—with the consent of all concerned—she was given a small dose of LSD. She talked to her doctor who took detailed notes.

"But there is something else here. For once I can see the order upon order. What looked like a mess, a confusion, is just the vast complexity of it all, towering layers of interweaving movement. Once you see the pattern of the vortex, it all fits. Right here and now, the No Meaning to Life concept, the theory that it's all an accident, is the greatest improbability of all. What an accident! What an amazing, dazzling accident!"

Irene had been a nurse up to a few months ago, a good one. She was forty-five years old and divorced. Her marriage was the biggest mistake of her life, for she had thought she could reform a confirmed drunk. There were no children, and except for her sister, no relatives. At one time she probably was attractive, but now her skin was a deep yellow-green and her face and arms were emaciated and wrinkled. Her hair was auburn except for the first two inches, which was brown with streaks of gray. Her abdomen and legs were grotesquely distended with fluid. Any doctor passing her room would know at a glance that she was terminally ill. She knew it, too. She knew what her large liver, the jaundice, the bone pain, and the swelling meant.

Before the LSD experiment, we had spoken a few times about death and other things. It's not easy to talk freely and comfortably in such a situation. There is so little to say. The usual platitudes would have been an insult to someone like Irene. She told of her childhood in the East, her schooling in Wisconsin, her three-year marriage: *"It was all right during the day; I worked. At night it was a nightmare."* Now there was nothing, no religion, no hope, only a half-dozen Get Well cards on the bedside table and a few red roses in a vase on the dresser.

"I am dying—I see it very clearly. Soon the patterns of the mind will stop because the complex patterns of the body can no longer support them. It will all collapse into a waste heap of molecules

by Sidney Cohen, M.D. 77

from which a new matrix will be drawn. The new will have little to do with me. I see I must accept and surrender to this possibility of total extinction as a person."

Man is probably the only species concerned and distraught about personal extinction, for only man has the capacity to scrutinize himself. Only he can conceive of a future, and perceive himself as a separate creature, more or less apart and alienated from any communal form of existence. We are born into an egoless world, but we live and die imprisoned within ourselves.

This self-awareness—without faith that it all has a meaning—can breed an overpowering fear of death. Freud said that no one could actually imagine his own extinction. And so the dread of dying is the ultimate agony.

In Irene's case, we hoped that a speck of this uncanny drug would allow her to accept her suffering and her death to come. We wanted to provide a brief, lucid interval of complete egolessness, to demonstrate that personal intactness was not absolutely necessary, and that perhaps there was something "out there." In the process we hoped that she would somehow come to terms with her pain and misery.

"How fantastically easy it is to bring human life onto the earth! A single sperm from a single copulation—a single egg fertilized—an embryo—the fetus—birth. The ease of creating life. And sometimes the ease of death—in sleep—a sudden encounter with a hard, unyielding object—the quick closure of a coronary. Then, there are the difficult deaths, like mine. Well, I see that the hard deaths too, must be borne—like the difficult births, it is a part of you.

"I never fully realized the rhythm of the thing—oh, I did intellectually, the cycle of birth, growth, decay, death. Growth always seemed to be at the peak. I don't want to make a virtue of death, but right now they all are at the same level. Decay and death, are no less than birth and growth. Can this be the final rationalization? Hardly. At this moment values don't matter. Life and death matters—they are of me.

"I could die now, quietly, uncomplaining—like those early Christians in the arena who must have watched the lions eating their entrails. Will I remember any of this? And what about the pain? I suppose I'll be a baby about it again. Right now, the pain is changed. I know that when I pressed here yesterday, I had an unendurable pain. I couldn't even stand the weight of a blanket. Now I press hard—it hurts—it hurts all right—but it doesn't register as terrifying. It used to throw me and make me beg for another shot."

Death must become a more human experience. To preserve the dignity of death and prevent the living from abandoning or distancing themselves from the dying is one of the great dilemmas of modern medicine. It is the doctor these days who is in closest touch with those near death and he must still treat the patient even when the disease is long past remedy. How shall he prevent those closest to the patient from retreating out of grief, guilt, or aversion? And what shall he tell the dying man or woman? Leading cancer specialists generally believe the doctor should tell the patient the truth about his future, a truth tempered with some optimism. This is not only a kindness, but realistic, for patients with far-advanced malignancies have, unaccountably, recovered for years. However, there are incurable patients who do not want to be told. The sensitive doctor knows this and allows them to deny the undeniable.

The Meaning of Pain

Irene did not need telling; she had spelled out her prognosis to her doctor many weeks ago. He had tried his best to make her comfortable. Though he was a busy man, and there was little he could do for her, he always found time to come in to talk, and implicitly to let her know that he would be with her to the end.

Continuous, severe, deep pain disintegrates all but the strongest of personalities. When the patient knows the pain will terminate only in death, the pain takes on the meaning of death and is hardest to allay. To relieve dread, counteract depression or reduce pain, the narcotics have been mainstays since prehistory. Opium has been replaced by morphine and other derivatives and new synthetic chemicals. All these medicines reduce pain, enable the patient to sleep, and may raise his spirits. With those near death, the danger of addiction is no problem and skillful use of drugs can circumvent the body's ability to adapt to them.

We have a whole array of sedatives and hypnotics for resistant insomnia. We can control waking anxiety with tranquilizers, and alcohol has not been completely abandoned. When depression is severe, stimulants and antidepressants are available. Ideally we would like our patients to be calmly awake for at least part of the day. But sometimes one must settle for a continuous drugged stupor. Medications and a few nerve-cutting operations are the doctor's weapons in the battle that is always lost. Possibly LSD will add something quite new to his arsenal.

A recent study by Dr. Eric C. Kast of Chicago

78 LSD AND THE ANGUISH OF DYING

indicated that LSD exceeded two other narcotics in the effectiveness and duration of its pain-relieving action. My own research confirms this finding. It would seem that LSD does not act directly on the part of the brain that receives pain impulses. Instead, it appears to alter the meaning of the pain, and in doing so, diminishes it.

This is what happened to Irene. Attending to thoughts and feelings beyond herself, she was unconcerned about pain which had been the main focus of her waking existence for months. No longer did it have ominous significance. During the long day of her LSD treatment, nurses came into the room twice to remind us that her pain shot had not been given.

"Then, there are the nurses. There are those who want to snow me under—because of their own fears, or maybe because I am a nuisance. But there are also a couple who, for some reason, don't want me to die an addict. As though that makes any difference whatsoever. They give me placebos and sometimes I scream at them and accuse them of taking my Demerol themselves. I scream, knowing it's a lie—but I'm hurting. I had the same thing

screamed at me when I was in training—I can still remember how it shook me. I must not ever be that cruel again, not even in pain.

"When I die, I won't be remembered long—there aren't many friends and hardly any relatives left. Nothing much accomplished—no children—nothing. But that's all right, too."

It was late afternoon before she spoke again. "I'm coming back. It seems to come and go, but it wasn't like it was before."

"The important thing is to remember," the doctor said.

"Yes—oh, yes, but will I remember it all?"

"You will remember a good deal, and I have some notes here that we can go over to help bring some things back," he answered.

The next morning the deep lines in her face had returned. But she still had a quietness about her.

"The pain is back, but I think I can cope with it. What a day yesterday was. A sort of holiday from me."

During the next three weeks she was noticeably more relaxed. There was a calmness about her. She occasionally needed narcotics. Then she died.

They Don't Read De Quincey In Philly or Cincy

by Ogden Nash

Consider, friends, George Joseph Smith,
A Briton not to trifle with,
When wives aroused his greed or wrath
He led them firmly to the bath.
Instead of guzzling in the pub,
He drowned his troubles in the tub.

In France, however, thrifty land,
The bathtub must be filled by hand,
And that is why that fabled fiend,
The laziest ever guillotined,
When shedding his prospective brides
In multiple uxoricides
Just combed his beard and shined his hat
And led them to the Landrumat.

Oh why then doth our home-grown spouse
When tired of mate around the house
Just seize on any weapon handy?
A dreary *modus operandi*,
Proof we belittle in our hearts
Fine murder with the other arts.
As connoisseurs have often snorted,
Murders, like wines, are best imported.

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