LSD:
The Varieties of
Psychotic Experience

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The very first hope that followed Albert Hofmann's discovery of the profound psychological effects of lysergic acid diethylamide (LSD) was that it might prove useful in understanding schizophrenia. For a while, because of its enormous potency, there was some speculation that the substance actually was the cause of schizophrenia, but that notion was quickly abandoned because the human body presumably does not manufacture anything resembling LSD. Furthermore, tolerance to it developed so rapidly that it could not possibly be implicated as a causal agent. The next hope was that LSD could provide a model of schizophrenia, which would be a great step forward in the study of that condition. Schizophrenia could then be brought into the laboratory where its earliest symptoms could be scrutinized, the relationship between the disturbances of thought, mood and perception clarified, various drugs tried to treat distressing symptoms, and even cures might be found. It is axiomatic in medical research that when a usable disease model becomes available, rapid advances in prevention or control will follow.

It soon became apparent, however, that the LSD experience did not mimic chronic schizophrenia. But what about the acute phase of the disease? Even here there were differences, but also striking similarities. LSD-induced hallucinations (i.e., perceiving something without any sensory cue) are ordinarily not actually perceived. Sometimes they are pseudohallucinations (i.e., perceiving something that does not exist, but knowing that it is a false perception). Even when true hallucinations occur, they are ordinarily visual with LSD, but auditory in the schizophrenic. When schizophrenics do have visual hallucinations, they are usually seen with open eyes. LSD-induced hallucinations, on the other hand, are best seen when in a darkened room or when the eyes are closed. Additionally, other differences also exist. Under the influence of LSD it is rare to completely lose insight into the fact that one has taken a drug. Therefore, the marked changes in mental functioning are recognized as temporary. Such helpful information is not available to schizophrenics.

One line of research during the 1950's and 1960's was to give LSD to chronic or recovered schizophrenics. As a rule, they described their experiences under the drug as quite different from their acute schizophrenic episodes (Kaplan 1964). Since this work with LSD and schizophrenia was completed, better drug models for psychotic states have been found. For example, amphetamines or phencyclidine (PCP) in large doses will mimic paranoid schizophrenia more precisely than LSD (Allen & Young 1978; Snyder et al. 1974).

There are similarities, however, especially when comparing the bad trip or the prolonged psychotic reaction that can be caused by LSD to the natural disease. In such adverse reactions, the thinking is fragmented and the emotional response of the LSD taker to the unhappy experience s/he is undergoing can resemble a catatonic or paranoid schizophrenic reaction. The similarities are great enough to have motivated some mental health professionals who wished to experience visual misperceptions or delusional thinking to undergo an LSD

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experience under supervision and after proper screening. After such experiences, a number of psychiatrists and psychologists expressed an enhanced understanding of their hallucinating or deluded patients. One of them remarked that "You cannot completely understand the pervasiveness of a hallucination until you have had one."

It is fascinating to realize that during the period in which LSD was thought to produce psychosis in miniature, most scientific observers had no difficulty perceiving and describing it within that framework. Inasmuch as it represented a marked deviation from sanity, it had to be insanity. Later, when it became clear that not all experiences with the drug were disorganized, chaotic disruptions of mental functioning, the term "unsanity" was used to describe some of the integrative experiences that had been witnessed.

The unsanity concept is worth describing briefly. The range of alterations of awareness might be likened to a circle with a small gap separating the ends. At one end is the insane state: a disorganization of awareness, a buzzing confusion. Midway between the two ends the varieties of sanity would be placed. At the other end, an integrated, superorganized state of awareness (unsanity) could be situated. The gap is narrow, with some people slipping back and forth between insane and unsane episodes during an LSD experience. Crossing the insanity-unsanity gap happens not only in the drug-induced psychotic episodes, but also in true schizophrenic reactions in certain people. For example, some of Van Gogh's deviations from the sane state seem to have been oscillations between madness and some superlative condition resembling unsanity.

The positive LSD state is sometimes reminiscent of the earliest stages of a schizophrenic break. Bowers and Freedman (1966) have written about certain incipient schizophrenics who have had psychedelic-like experiences. In case after case, feelings of wholeness, profundity, union, meaningfulness and spiritual awakening are described. Visions of great beauty or awesomeness are mentioned. A number of self-reports from recovered schizophrenics have also been compiled by Kaplan (1964). These descriptions of prepsychotic experiences could easily pass as accounts of transcendent LSD-induced states. Later, as ego functioning deteriorated, the chaotic schizophrenic features emerged. These early, heightened states of sensitivity and awareness, with diminished control over the sensory information coming in, are the ego's efforts at mastery. Most often the effort fails, but when it does succeed the result is called a religious experience and it may dramatically alter the experiencers and their culture. Under the influence of LSD a similar struggle can take place and for a number of reasons the result more often takes the direction of self-transcendence than self-disruption. Bowers and Freedman (1966: 240) concluded that "*psychedelic and psychotomimetic phenomena are closely related.*" This is true. Unsanity and insanity are separated by a narrow gap, but in other respects they are polar.

This juxtaposition of the mystical state and madness is extremely mystifying and difficult to understand. As previously indicated, during the first decade of LSD's clinical debut there was no question about it being a psychotomimetic agent. If the LSD experience was not schizophreniform, then it was an intoxication. Some of the early writers of that era called the LSD state a toxic psychosis—a delirium. In fact, Osmond and Hoffer (Aaronson & Osmond 1970; Hoffer & Osmond 1967) first used LSD to produce a reaction similar to delirium tremens. Their reasoning was that if alcoholics had to hit bottom before they could be motivated, LSD might engender a simulated experience that could accelerate the recovery process. In retrospect, the fact that about half of their patients improved their drinking patterns is better explained as a result of some sort of a religious conversion experience than of a delirium. A delirium is characterized by marked confusion and disorientation, but very few LSD experiences are confused, disoriented states.

Later, a number of investigators began describing something else. They spoke of revelation, great insights and self-transcendence. It was strange at that time (the early 1960's) to speak with investigators who would flatly state that they saw only psychotic reactions after LSD ingestion, whereas others would assert that the majority of responses that they observed were intensely positive, gratifying, even insightful experiences. It became evident that the nondrug variables—the personality of the investigator, the purpose of the study, the expectations of the subject and even the setting in which the drug was administered—were critical factors determining the direction in which the subject's experience would proceed. LSD seemed to act as an unleashing agent, dissolving ego controls, increasing suggestibility and permitting a bewildering voyage into insanity or an awesome trip toward unsanity.

Even the words employed to report the condition deviated by 180 degrees. The terms used to classify the drug were either "psychotomimetic" or "psychedelic." The visual component might be either "hallucinatory" or "visionary." The thought sequence was "delusional" to some and "integrative" to others. Similarly, the emotional quality could be described as either "dysphoric" or "ecstatic." The dissolution of ego boundaries might be labeled "depersonalization" or "mystical union," de-

pending on one's frame of reference.

ACUTE AND PROLONGED PSYCHOTIC REACTION

It is well established that one of the undesired varieties of psychedelic experience is an acute psychotic reaction. This is an intensely hurtful event known in popular parlance as a bummer, although the term includes other negative responses—such as anxiety and panic states. It is a few hours of horror, experienced in a much longer interval of chaotic mental activity and fears of going mad or of dying. The factors that can produce this hellish encounter are many. The particular character structure of some people makes the direction of their LSD experiences almost inevitable. The drug's effect—the loss of controls and reference points in reality, the hypersuggestibility, the inability to sort out and make sense of incoming information, the vulnerability to insignificant sensory cues—can turn an LSD experience into a nightmare. There is one other factor: LSD often turns people inward to their personal unconscious. If repressed material surfaces that is too overwhelming to be dealt with, it might break down the barriers against psychosis. All this might be worthwhile if something were learned in the process. Unfortunately, little is learned because of the fragmented, incoherent thinking capability of the consumer caught in the grip of dread. Usually, such a disruptive condition will last for a few hours or a day, after which the healthy aspects of the psyche will restore saneness.

It is seemingly paradoxical, but nonetheless true, that those who are most vulnerable to undesirable adverse reactions are also those who are most attracted to the drug. Of course, it is not really paradoxical, because people who are in psychological pain seek relief. They hear of the magic that LSD has worked in others and they yearn to be transformed as well. Who are the high-risk candidates? In general, they are the unstable, immature or rigid personalities. Excessively paranoid or depressed individuals may also run into difficulties. Another group who would do well to avoid LSD and other hallucinogens are schizoid persons or the close relatives of schizophrenics.

Prolonged psychotic reactions might take place under the best of circumstances. When LSD is used without adequate selection, preparation, safeguards, and facilities for aftercare should anything untoward happen, catastrophes can occur. Of course, large doses of LSD are more dangerous than low doses. One reason why long-lasting psychotic reactions occurred more frequently 10 or 15 years ago than today is the larger doses of LSD that were consumed then as compared to the present.

Persons who are given LSD without their knowledge and consent often have disturbed reactions. Included in this group would be people who ingest LSD accidentally. Knowing that one has ingested a drug—to account for unusual changes in perception—is important and stabilizing information. Without it, the LSD state can be an experience of madness that might not necessarily abate.

Often the precipitation of a prolonged psychosis is written off by the bystander as something that would have happened even without ingestion of LSD. If the person remains in a psychotic decompensation for an extended period of time, a common reaction is that s/he was on the verge of a breakdown anyway. These rationalizations may help assuage guilt in the person who gave the unfortunate victim the drug, but they are far from true. Fairly stable people have become and have remained disorganized following a trip that took place without their knowledge and consent.

Many of those who have sustained prolonged reactions have recovered within a week, with the aid of strong supportive psychotherapy and tranquilizer medication (Kleber 1967). Others are known to have remained incapacitated for years despite optimal treatment.

Very often such breakdowns are accompanied by a strong paranoid quality of the thought process. Those who possess excessive ideas of persecution or grandiosity are often driven to bizarre behaviors. Those who acquire a grandiose notion of themselves have had singular careers as gods, prophets and commune gurus. LSD-acquired omnipotence in a charismatic person has led to group delusions of the person's godliness. Such cult worship is accelerated under conditions of restricted information input: restricted to the leader's pronouncements. The power to have complete control over a group of people is heady, but "power corrupts, and absolute power corrupts absolutely."

Although the schizophrenia-like paranoid response is the most frequently observed long-lasting adverse LSD reaction, other kinds of disorganization have also been seen. Catatonia, schizoeffective and undifferentiated varieties of schizophrenia have been mimicked. Maniacal and depressive episodes have occurred. A number of borderline conditions have also been identified (e.g., dissociative reactions in which there is a split between the self and the observer-self). A hallucinosis in which the visual hallucinations persist with little or no associated thought disorder may also take place.

The psychotic break need not follow the LSD exposure. Instead, it may occur in connection with a flashback or the spontaneous reappearance of certain aspects of the person's LSD experience. When it is interpreted in terms of going crazy—because there is no drug to explain the unusual perceptual changes—the resulting stress could produce a psychotic decompensation.

It is not possible to estimate the frequency of occurrence of LSD-associated psychoses. Sometimes they are overdiagnosed. For example, people who happen to have a breakdown may attribute their problem to someone who put LSD in their coffee. Individuals who have been arrested for a major crime may use the defense that they had taken LSD and could not remember what had happened. On the other hand, obviously post-LSD psychotic persons may be accepted into counterculture communities without difficulty. Their odd behavior and speech might be interpreted as humorous or perhaps a manifestation of a special sort of transcendence. For example, one mute and extremely regressed young man who had been immobile since his last LSD experience a few months earlier was brought to this author because he was not eating. Things were getting a little out of hand because he was dehydrated, malnourished, anemic and unable to sit up or walk. His odd behavior was not thought to be remarkable in the permissive group that was trying to care for him.

THE LSD PSYCHOSIS: A REVIEW OF ITS CAUSES

A number of contributing factors to a psychotic outcome following an LSD experience have already been mentioned. The following list is an expanded explication of these and other contributing factors:

1. *Preexisting character structure*. A hereditary component is present. The families of schizophrenics may have this vulnerability, but will ordinarily not suffer from the disease. In addition, emotionally labile persons and those with poor tolerance for stress are more likely to have trouble with LSD than others. The LSD state can be a very strenuous one, and it can be unsafe to expose these kinds of persons to it.
2. *Setting*. The hypersuggestibility of the person under the influence of LSD makes sensory signals assume an overwhelming meaning. Therefore, if the sights and sounds are unpleasant or disruptive, they might reverberate on the experience itself and beyond. Hearing becomes hyperacute, and taking LSD at a rock concert, for example, may be upsetting enough in some cases to cause certain individuals to freak out.
3. *Insecurity*. A person under the influence of LSD is like a child: defenseless and vulnerable. A responsible, empathetic companion helps to assure that the user will be protected and cared for. Feelings of insecurity lead to perturbation, panic and psychosis. Taking LSD alone or with the wrong person can be hazardous to one's mental health.
4. *Set*. If it is expected that a bummer will occur, the chances are that it will. Good trips have been turned into bad ones when someone in the room fell apart. LSD experiences have a contagious quality when people turn on together. In earlier days, researchers who expected that their subjects would go mad saw their subjects go mad.
5. *Negative experience*. An unhappy, panicked reaction to LSD is much more likely to result in a prolonged psychotic state than in one that is pleasant. The positive experiences that cause trouble are those in which feelings of omnipotence and grandiosity predominate. These beliefs can be carried over into the world one returns to, causing occasional problems.
6. *Problems of reentry*. After the peak experience, coming back to reality may be difficult. For a few individuals it can lead to a serious depression. It is a sort of culture shock, and some individuals may withdraw from life as it is, after experiencing the enormous vista of life as it should be.
7. *Dose*. High doses of LSD are obviously more difficult to handle than lesser amounts. The reaction is more intense and longer lasting. Higher doses also dissociate the individual. For some people this is a frightening experience, but for others it is a sought-after event.
8. *Frequent use*. Frequently repeating LSD voyages may lead to an incomplete recovery, with some blunting of the intellect between trips. Mild confusion, memory impairment and loss of motivation could result. Gerald Heard (1963), among others, believed that when LSD is used for purposes of self-examination and understanding, at least 90 days were needed between LSD exposures in order to integrate what had been learned.
9. *Current mood and stress level*. Sometimes taking LSD in a stressful situation or when depression or considerable tension is present may lead to adverse effects. The depression is as likely to get worse as it is to get better. The hope of finding a solution to one's conflicts may or may not work. If it works, fine; but if it does not, the problems are compounded.
10. *Insufficient preparation*. The LSD candidate should be apprised of the general nature of the state, how long it will last, how s/he will be protected and other ground rules. Some type of unwritten contract should be agreed on in order to make the ensuing experience as positive as possible. As part of the preparation, the candidate should be studied to evaluate his/her ability to withstand the LSD experience. If there is any question about it, the project should be abandoned.

THE PREVENTION AND TREATMENT OF LSD PSYCHOSES

Psychotic reactions are almost completely preventable. This has been proven in many research settings. In

1960, this author surveyed 62 investigators and collected information about complications associated with LSD in about 5,000 people who had taken the drug some 25,000 times (Cohen 1967). The proportion of psychotic states that lasted more than 24 hours was about one in a thousand, and this group included emotionally ill patients who were given LSD as a therapeutic drug.

This means that with proper screening, sufficient explanation of the state prior to ingestion, ample protection and some expertise in dealing with the earliest evidence of panic or mental turmoil, catastrophes need not occur. Giving LSD without the full, informed consent of the recipient is a particularly pernicious practice.

LSD is an enormously potent drug. The fact that large numbers of young people have taken it under casual conditions without particular safeguards and have not had difficulties is a testimony to the adaptive powers of the human psyche. Nevertheless, it is a substance that should be treated with great respect because it does have a mind-shattering capability.

The immediate psychotic reaction to LSD should, when possible, be dealt with without drugs (Cohen 1970). Strong assurance by a trusted friend or sincere professional that the unhappy condition is temporary and will surely subside may be all that is needed. The place where the person is recovering ought to be quiet and light. Because the intensity of the reaction increases when one closes one's eyes or daydreams, the eyes should be open and attention focused on a voice or a visual stimulus. This is not the time to examine the psychological reasons for the loss of ability to know reality. Rather, it is a time for bolstering the person's ability to regroup his/her defenses and recover ego integrity. A period of sleep will help. To that end, an anxiety-reducing or sedative drug may be worth using.

The prolonged reactions tend to subside over time; the majority within a week. There are a minority of psychotic conditions that go on much longer and they are particularly resistant to both drug and nondrug treatment.

Inasmuch as flashbacks appear to be learned behavior—learned during a period of nervous system arousal—the avoidance of emotional and physical stresses as well as drugs might help to prevent them. Reassurance is necessary and realistic because flashbacks are self-limiting. Marijuana and hallucinogens, in particular, should be avoided. An antianxiety agent will relieve the apprehension and decrease nervous system excitation. Exhaustion and tension are to be avoided. Anything that improves the physical and mental state will be helpful in preventing the recurrence of flashbacks.

THE PRESENT AND THE FUTURE

LSD continues to be used, although at a reduced level and with less public preoccupation. Attention has been diverted to other substances, such as PCP, that provide even more sensational accounts of incredible violence and protracted psychoses. Although a certain amount of LSD usage is for the purpose of self-understanding or to achieve a cosmic awareness, it seems that the goal of most current consumption is simply to get high. It is difficult to be against pleasure, although chemically procured euphoria does not seem to have the sustaining qualities of naturally achieved pleasure.

Meanwhile, adverse effects of LSD are still encountered. For example, after ingesting six doses of LSD a 16-year-old youth is bumped by another young man at a high school dance, whereupon he pulls out a knife and stabs the offender in the heart. Or, a car driven by a young adult skids off the road and hits a tree. He survives, but his girlfriend dies. His legal defense is that he was under the influence of LSD. Or, a suicide attempt succeeds after recurrent flashbacks cause a severe depression. Such incidents do not find their way into the newspapers anymore, but the Charles Manson story did because of its gruesomeness. The repetitive stabbings that were described are fairly characteristic of the stereotyped perseverant behavior associated with LSD and stimulant-type drugs.

The motivation for the use of LSD has deteriorated from the intoxicating days of the psychedelic revolution. Now it has been transformed into just another euphoriant that is often consumed along with alcohol and other downers. This means that undesirable effects should be even more frequent than in the past, but there is no way of knowing the prevalence of either psychological or behavioral LSD toxicity.

Sometime in the near or distant future, a rebirth of the psychedelic use of LSD will surely take place. Groups of people will rediscover the chemical transcendental state and be strongly attracted to it. Unless the leaders of the psychedelic movement of that day are wiser than those of the 1960's, the same mistakes will be made and the same unhappy ending is likely. The puerile notions that "LSD is something for everybody" or that "LSD will cure you of what you are" or that "the worst that can happen is that you will come back no better than you were" or that "you have to go out of your mind in order to use it" or other myths of those heady days will be replaced by an LSD ethic and discipline as well as an LSD support system.

LSD will always be an elitist drug when taken for the

purposes of self-transcendence. Only those whose life experiences or whose spiritual training has prepared them for the event will learn form it. Others, especially the unprepared, may be devastated by it.

SUMMARY

The varieties of psychotic LSD experiences are many. A very few may resemble a delirium, some are quite reminiscent of schizophrenia and others have an idiosyncratic quality not seen in the naturally occurring psychoses. The psychotic response to LSD is better understood than transcendent experiences because its neurochemistry and phenomenology have been worked out. Additionally, there is greater familiarity with the endogenous psychoses than the endogenous cosmic experiences. The LSD condition, especially the unsane state, is indeed an experience in search of an explanation. It is doubtful that an animal model for it will be found. It is even possible that not all humans are capable of achieving that state by means of the hallucinogenic drugs. The LSD state remains an area of enormous interest that requires exploration and research.

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