The Use and Abuse of Psychedelic Drugs

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Magic, drugs, drama, festival rites, utopian ideologies, and (with biological regularity) dreams have abetted man throughout history in his unceasing urge to transcend limits and escape dreary reality or anxiety. Given the prevalence of such wishes for omnipotence, it is not surprising that drugs play a role not only in the behavior of individuals, but in social and ideological processes. A pertinent question is whether the data of ethnology, pop culture, and clinical use indicate that there are drugs which specifically enhance these varied purposes. If so, how do they? Why and how exclusively or to what extent do they work? At what cost?

There are problems complicating such assessment. With the appropriate motives and occasions, almost any psychoactive drug can provide a brief "ego disruption," producing a moment of being "out of it." This disruption *in itself* may promote the release of powerful affects, and this ego state will be welcomed for its value as a remarkable trip from reality. Etched upon it may be the specific pattern of the drug. While I believe that drugs such as LSD extend and accent this primary ego state in a salient and sustained way, it is true that sufficiently strong motives can capture any opportune occasion to generate uninhibited or cultist behavior. The powerful role of set and setting should be assessed; for example, the exclusive "Mexican-ness" of Hoffman's visions when he first ingested psilocybin (derived from a Mexican mushroom) is hardly ascribable to a specific chemical action. Another problem of studying so-called irrational behavior is that there is nothing intrinsic to the training and practice of a wide number of professionals which equips them knowledgeably to handle and interpret either the irrational itself or themselves when dealing with it. Reporters' judgments and assertions have to be continuously assessed. In any event, scrutiny of the social use of drugs cannot infallibly discriminate the "basic" pattern of effects. We first have to distinguish the range of effects of "ego disruption" and what is commonly called the power of suggestion.

The reported consequences of drugs such as LSD range from isolated awe or benign or even bored surprise to shifts of values. They range from transient to long-term psychoses, to a gamut of confusional states and depression, to varieties of religious or aesthetic experience and insight, to clique formation and ritual. There are now conflicting reports of therapeutic efficacy in alcoholism, depression, character disorders, and severe neurosis. There is also a mushrooming psychedelic culture. This underlies the tribal motions (or Brownian movements) of young and aging dropouts, rebels disavowing society's "games" if not all (nonmusical) instrumental behavior. The paraphernalia of fringe fashions, music, and art comprise the trappings and trippings commercialized as psychedelic "go-go." Some serious theologians and some hippies, as well as our peripatetic prophets, now seek the drugs as a promoter of love, of religious or self-enhancement; apparently Western soci-

ety will be a Zen elysium. Enthusiasts are sincere and private, or provocative and evangelistic, and there are variant subgroups whose rapidly evolving ideologies and behavior are as yet unrecorded.

THE PSYCHEDELIC DIMENSION IN BEHAVIOR

The recurrent historical theme is that certain drugs are compellingly related to "learning," to self-revelation, and that they are involved in some mystical, often ritual, use. The American Indian states that "peyote teaches." This theme does not dominate ordinary accounts of marijuana usage. The potent preparations of cannabis—charas and ganja—are an exception and have been used in India to enhance contemplative states as well as for a "high," and are not without paranoid and other psychotomimetic effects. Apparently there is a continuum of effects along the dimension of self-revealing and ritual usages.

To the extent that there *are* classes of agents which reveal normally suppressed components of the mind—exposing these dimensions to our attention—we can say that both use and abuse stem from an amazed response to a drug-induced subjective experience. If this is what Humphrey Osmond meant by the term "pschedelic" (or "mind manifesting") it is an apt though not novel description. Whatever the outcome, the mode of functioning and experiencing called psychedelic—or psychotomimetic—reflects an innate capacity (like the dream) of which the *waking* human mind is capable. The fact that a certain class of drugs so sharply compels this level of function (with all the variability inherent in less organized states) and does so for a chemically determined package of time is what intrigues the biobehavioral scientist.

What is so striking about the experience of this "region" of the mind? Two features are obvious: the nature of the experience, and the contrast with ordinary experience. It is my impression that one basic dimension of behavior latently operative at *any* level of function and compellingly revealed in LSD states is "portentousness"—the capacity of the mind to see more than it can tell, to experience more than it can explicate, to believe in and be impressed with more than it can rationally justify, to experience boundlessness and "boundaryless" events, from the banal to the profound.

The sense of truth is experienced as compellingly vivid, but not the inclination to test the truth of the senses. Unlike the sleeping dreamer, the waking dreamer is confronted with the coexistence of two compelling and contradictory orders of reality—with the interface of belief and the orderly rules of evidence.

James saw this region of the mind which knows *both* mysticism and madness: ". . . there seraph and snake abide side by side." But experiences of this realm of the mind cannot be totally disconnected from normal life; how they are connected is the crucial issue. The "trip" back to reality after "tuning in" to this region may be discordant or harmonious; one's sense of both the inner and outer world may be revised in the service of the rational ego or altered to suit the requirements of irrational needs.

There are, then, modal and characteristic forms of mental operations which can underlie behavioral states and experiences of widely different consequence, intent, and meaning; and these modal operations are common to both madness and mysticism which must be differentiated on other grounds. There are few drugs which can so readily demonstrate this, so unhinge us from the constancies which regulate daily life, or so clearly present us with unevaluated data from the "inside world" and from the many inutile perceptions potentially available to us. In his classical neuropsychological studies of mescaline, Heinrich Klüver concludes with speculations about the drug's differential action on those large subcortical areas of brain which are characterized by variability and those few anchoring sensory-motor systems which aid in constancy. Perhaps the question is not so much expanding the mind—it is expanded enough—but to see if there are drugs which can foster a better and more creative coordination among these so-called regions.

In any case, it clearly has been tempting to snatch some good from psychedelic effects. It also can do little harm, given such an ample smorgasbord of claims, to seek perspective by concentrating on what—if anything—is common to all of these varied effects of LSD. What must be described is a multipotential state which, in its most general sense, can underwrite a variety of outcomes: religious feeling and conversions, states of hyperception leading to inspirational insights, to psychosis, to exalted states, or perhaps to behavior or value change. Some of the modes of experience—the styles—which characterize the drug experience can be linked to the outcome or to the style of life commonly centered around drug taking: whether this frequently persistent "hangover" of drug effects represents new learning, or reinforcement of the ongoing trend of goals and adaptations, or more complex mechanisms is not now known. Beyond impressions which are hardly sanguine about long-term use, evaluated data on the drug experience are still lacking.

SOME FEATURES OF THE DRUG STATE

During the first four-and-a-half hours of the drug state there is generally a clear-cut self-recognition of effects—an internal "TV show"—which is followed by another four or five hour period in which a subjective sense of change is not marked but during which heightened self-centeredness, ideas of reference, and a certain "apartness" are observed. At 12 to 48 hours after drug ingestion there may or may not be some letdown and slight fatigue. There is no craving for a drug to relieve this and no true physiological withdrawal, as is the case

with opiates, alcohol, and certain sedatives and tranquilizers. Tolerance (diminished effect with daily dosage) does occur, requiring three or four days of abstinence for recovery of full sensitivity to the drug.

It is the intense experience without clouded consciousness—the heightened "spectator ego" witnessing the excitement—which is characteristic for these drugs in usual dosages. Thus there is a split of the self, a portion of which is a relatively passive monitor and a portion of which experiences. Some people seem to repeat this long after the drug state; they turn away from the prosaic world, or else are turned away by society as well as turned on by the drug. They may find a clique or a group which tolerates this disposition.

During the drug state, awareness becomes intensely vivid while self-control over input is remarkably diminished; thus there is the lurking threat of loss of inner control, of the "dying of the ego" so often reported in bad trips or in phases of mystical experiences with the drug. Customary boundaries become fluid and the familiar becomes novel and portentous. The loosening of boundaries and carelessness or an indifference to the habitual and customary may characterize certain chronic drug abusers. This may border on a supercilious posture of superiority which the elect of many cults can assume (or which the outsider feels to be the attitude of those who know something he does not).

Events—internal or external, memories or perceptions—take on a trajectory of their own; qualities become intense and gain a life of their own. Redness is more interesting than the object which is red; meaningfulness more important than what is specifically meant; connotations balloon into cosmic allusiveness; the limits of sobriety are lost. Sexual experience may or may not remain "sexual." The very definition of the importance and stability of the external world shifts. And, after the drug state, we may find more tolerance for ambiguity and a diminished readiness for the quick answer; we also can find an associated inability to decide, to discriminate, to make commitments.

Most neurotic symptoms have been viewed as misguided attempts at cure, and it may be that for many the drug experience—like certain symptomatic acts—represents a beginning which, without luck or expertise, cannot easily come to a useful conclusion. Thus many of the immediate after-effects of LSD could depend largely on the motive for taking the drug and in fact could be transient rather than transforming. How to reinforce any shifts in attitude which do occur with the drug without running the risk of repeated drug sessions is a largely unstudied issue. One good "trip" does not predict a second.

Since judgment is not enhanced *during* the drug state and since isolation or apartness, even when sanctioned by a minority group, bring their own problems, it is clear that persons who continually overvalue the experience of the drug state could develop or reinforce patterns of poor practical judgment. The consequences of long-term and frequent use of the drug—at present the rarest form of experimentation with LSD—would probably have to be evaluated in this context.

In the drug state, the experience of compelling immediacy diminishes the normal importance of past and future. It also is related to the overvaluation of "nowness," the pursuit of the novel in certain youth subcultures. The ability to see the familiar in a new light, the temporary loss of normal anticipations, may be relevant to the still poorly understood creative process. Yet there is nothing about the drug effect which specifically enhances the synthetic and organizing facility. It is, in fact, the need for synthesis—not the ability to synthesize—that is enhanced in the drug state.

An important feature of the state is an increased dependence upon the environment for structure and support as well as greater vulnerability to the milieu. With the loss of boundaries, persons or a group are used for such elemental functions as control—for helping one to know what is inside and what is outside, for comfort, and for binding and balancing the fragmenting world. Persons or objects in the environment have positive or negative value in quite elemental terms: for example, as threats or as anchors in maintaining control. Persons are seen as objects—either to be clung to or to be contemplated in an essentially self-centered, aesthetic, or ideologic frame of reference. The claims for a different perspective on personal relationships have to be evaluated in terms of how this is integrated into the user's life, as well as in the internal rearrangements of his values.

With the fusion of self and surroundings some of the strain between harsh authority, social limits, and personal strivings can for the moment be transcended or dissolved. At the same time there is a leaning on others for structure and control. Hence, when the drugs are taken in a group setting, the breach with reality can be filled by the directive mystique and support of the group. This is, in part, why I have termed these drugs "cultogenic."

"MODEL PSYCHOSIS" IN THE DRUG EXPERIENCE

The elements of a model psychosis are present. By model we do not mean identity, but rather an approach to certain processes which are present to some extent both in the drug state and in psychosis. The conditions for either state have similarities and obvious differences, just as do dreams and psychosis.

Frequently, with LSD, what impinges on a present perception is a vivid memory of what has *just* been perceived; these coexisting images can compete for attention and thus give rise to illusions. These can be imaginatively elaborated into hallucinations. Similarly, past memories can emerge vividly, competing for status of current reality. The failure to suppress the prior perception or memory or thought characterizes what Bleuler

called "double registration" in schizophrenia. Similarly, the failure of identities and categories to be maintained underlies most of the descriptions of paralogic in schizophrenia. The capacity to direct one's focus is impaired; allocation of the source of a feeling, a sound, a sight, or a thought becomes difficult since inside and outside are fused. Accordingly there are frequent "projections" or misconceptions of motives. The "paranoid" tendency is reinforced when, absorbed in maintaining the integrity of self, one must exercise energy to account for slight changes in the environment which could portend danger.

The enhanced value and intense attention placed on the self, the "double registrations," the ambivalence, "loose associations," and diminished control found in the drug state all can represent the primary symptoms of a psychosis. The appearance of such acute psychedelic or "peak" experiences in psychosis has long been documented. Thus we have with these drugs at least a tool with which to study the genesis and sequence of a number of familiar phenomena in psychiatry. Whether this can lead us to a better sorting and description of the varied elements present in clinical disorders is yet unanswered.

ADAPTATIONS IN THE DRUG EXPERIENCE

Some persons endure all this without evident harm. The spectator ego can simply be interested in the reversal of figure and ground, the visual tricks, or—with higher doses—the spectator is entranced or totally absorbed. The experiencing ego can, especially with increasing dosage, be overwhelmed. At any level, defensiveness can appear: the struggle for control may dominate; the spectator shuts his eyes and fights.

There are different modes of coping with the drug state which could be called protective. One protection is *not* to fight the multiplicity of experiences during the drug state. When the traditional defensive operations come too strongly into play temporary panic may ensue even in relatively stable people. Thus a certain yielding and surrender of ambition and personal autonomy help some individuals to have a good experience, but this requires, if not group support, a special kind of personal strength. It also requires stable groups.

Some people achieve an overall stability by a disposition to react with an astounded pleasure to the whole flux of events. Others, like the Peyote Indians, are encouraged or equipped to transcend the fragmented disparate elements and visions, letting them flow into a mystique, or be steered by latent guiding interests or memories. With higher dosages and the increasing loss of the capacity to focus, the importance of guiding "sets" (music, mystique, or affective expectations such as the doctrine of boundless love) is enhanced.

The drug experience is compelling; it is hard to convey but incredibly vivid. No doubt the rearrangements of reality which can occur produce a memorable experience, but one is reminded of Sidney Cohen's remark that most people get what they deserve or what they are equipped at the time to experience.

THE NEED FOR SYNTHESIS

Anyone who has experienced this intense episode must come to deal with it: to synthesize and integrate it. Our dreams are an episode in a sequence of states which we usually can integrate into the normal fabric of living; similarly something must now be done with the total experience—nightmare, illusion, or ecstasy—lived through under the drug. Some borrow stability from readymade explanations. Others will decide that the sense of cosmic comprehension is equivalent to mastery; they will tend to deny the anxiety about the loss, or potential loss, of control. Some individuals will isolate the experience; some will set it aside in an attempt to master it, and still others will be compelled, repeatedly and unexpectedly, to confront what was experienced. We see this in students who come in for help, weeks after a drug-induced trip, experiencing brief non-drug trips.

In others, the breakdown of constancies and habits (which normally smooth over the disparate details of our perceptions and actions) can persist in benign ways. One scientist experienced his peripheral vision to be enhanced during the drug state. He commuted daily, reading on the train. For months after the drug, he was bothered by the telephone poles which flashed by his train window; he could no longer suppress what normally is background. Similarly, the unconscious "background" to thoughts and feelings can emerge. The mind provides constancy wherever the sense organs deal with variability. We anticipate or correct for the images on our retina to keep the world stable and ordered; the hand stretched eight inches before one may appear small, though on the retina or camera it is large. LSD appears to affect such perceptual anticipations as well as more complex regulatory systems. It rearranges our ideas of order.

In a state of altered consciousness where control over awareness is diminished, there is no way to bind the intensities experienced and symptoms may ensue. Thus people may "act" to produce vivid consequences or experiences in order to see them in a new light and grasp thereby for control. What often is lacking in this repetitive remembering or acting is the element of guidance, correction, reflection, and structure which leads to authentic self-mastery. This may be the chief source of danger of LSD—the lack of structure and autonomy and the traumatic and potent intensity of individual experiences.

Thus "acting out" behavior with or without a drug often compels external control, correction, and guidance and appears as a provocative accusation against authority. The young do not merely "turn on" themselves, but seem to display great anger at the guides

who, they feel, failed them. They thereby keep a link—and a very strong one—to the very strictures which had previously absorbed them, just as a misbehaving child is tied to his parents by evoking their involved irritation or punishment. Some kind of continuity with reality is sought. The bridge may be a book as it was with Huxley, silent synthesis or change of values and tastes, or the understanding of a group or person. In the Native American Church, the Indian utilizes all these elements —religious explanation and adherence, specific ceremonies, and the group with its ideology—to integrate the experience which serves a purpose in the total fabric of his life. The Indian does not accordingly seek a simple "high" or thrill with the drug.

Delusional autonomy borrowed from the peak drug state may lead to various outcomes: that of the benevolent but foolish prophet; or the defensive, alienated therapist, angry at those who prevent his curing the rest of the world. In any case it appears that salvation often involves renunciation of previous ties and that those who are saved must repetitively convince others in order to diminish their own doubt, isolation, and guilt. At best, they may do this in order to reachieve union with those from whom they have been separated by their unique vision and experience.

Many successful self-help groups seem to be peer groups. Here the distance between restraint and ambition, authority and miscreant (reminiscent of that between parent and child), is diminished and so too is the inner tension engendered by such conflict. The cost is a surrender of a certain order of autonomy to the group and dependence upon it. Group sanctioning of the drug state can diminish the intensity and isolation. The group mystique tends to give integration to events which by their very nature cannot easily be translated into public language.

Mystical or religious representations also are remarkably apt for synthesizing the experience, its symbolism perhaps representing the transformations characteristic of this latent part of the mind. Against fragmentation and directionlessness something coherent lends continuity to experience. Against dread, transcendent love can prevail; loving, like redness, can apparently be enhanced and is remembered. The "lovingness" and "strongness" of a parent can be parted from the particular person and transcendentally represented in the various forms of power ascribed to deities.

LSD IN PSYCHIATRY

Some psychotherapists have attempted to use the loosening of associations and the intense experiencing produced by the drug in order to influence behavior change. Yet the history of LSD therapy by physicians represents a picture of both use and abuse. In the late 1950s many physicians were not only struck by the drug-induced phenomena, but apparently were addled by taking the drug concurrently with their patients. Yet what is rational about therapy as distinct from healing cults is our obligation to study and control that with which we work.

There are a number of continuing controlled projects in this country, and a long history of experience with the use of LSD in therapy. Two major modes of treatment prevail. That employed by many European workers (often called "psycholytic") represents a method by which certain defenses are breached. With a strong drug-enhanced tie to the therapist, feelings and memories are allowed to emerge vividly and unforgettably before the eye of consciousness, and their strength discharged. The events are later worked over with care. The integration which follows is a collaborative venture requiring the active participation and output of the patient.

In the so-called psychedelic therapies as they are now being tested there is an awareness of an immense amount of preparation, of salesmanship with an evangelical tone in which the patient is confronted with positive displays of hope before he has his one great experience with very high doses of drug. The experience is structured by music and by confident good feelings. With the support of the positive therapist throughout this experience, the patient is encouraged to see his life in a new light, to think of his future accordingly.

Obviously careful follow-up is essential since the immediate glow which occurs with drug-induced personality change can be deceptive. Even if these results are occasionally positive, such therapies are taxing upon the time, emotions, and good sense of all involved and are not likely to be extensively used. Yet the fact that under LSD the therapist can often readily suggest basically positive or negative attitudes toward a wide range of life experiences and promote a state in which struggle may be diminished should arouse our fundamental curiosity—not only about LSD therapy and its possible efficacy, but about the mechanisms, utility, resistances, and pitfalls in behavior change achieved through persuasion.

THE SCOPE AND DANGERS OF ILLICIT USE

We should recall that the increasing problem of drug abuse in most countries is with alcohol, followed by the barbiturates, amphetamines, opiates, and mild tranquilizers. In this context the consequences to national health of hallucinogens are not as yet truly startling—either in terms of the utility of LSD or its harm. In the long run, debates about whether or not to use LSD are hardly as socially consequential as the use of "the pill." The agent most frequently used by youth for illicit purposes and with lethal effect is the automobile. This is an interesting generation, but they have not as yet gone completely to pot.

Not all users are the young, nor are all youthful users initially unconventional and unproductive. A few current illicit self-help groups employ the drug and re-

ligion to achieve a conventional outcome, for example, a group of ex-convicts and a group of homosexuals. Many practices (half-way houses, group therapies, cathartic therapy, confrontation therapy) built into the total fabric of psychiatric work are imitated by ever-proliferating self-help groups which frequently tap our society's long tradition of distrust of medical science.

Estimates of the incidence of psychedelic drug "use," however defined, are always vulnerable to criticism. They range from one to 15 per cent on certain campuses. Figures higher than five per cent probably do not distinguish single trials from habitual use, nor LSD from other drugs of abuse; for example, proselytizers frequently tell us about the "inevitable" increase in the use of marijuana *and* LSD. Only a small fraction of persons who have taken the truly potent hallucinogenic drugs can be said to constitute a reliable base for study of long-term users. The problem is that some are always first discovering the drug (available now for 20 years) and acclaiming it while the silent others are experiencing disillusion after a year or two of absorption. Still others actively seek or passively accept one or two experiments.

We need to study the fad element in usage. It may be that cycles of interest follow certain press releases; they may vary sharply with opportunity and the ethos of different settings—hippie centers or campuses or enclaves of middle-aged imitators who mourn their lost youth. Clearly the motives for experimenting, for maintaining (or self-regulating) the intake of any drug differ as do the consequences of these varied patterns.

Complications for research also arise from sensational publicity. The select as well as the popular press provide a structure for the curious, restless, and lost as they compete to announce or denounce drug usage. The psychedelic hucksters—for a bandwagon effect—confidently announce that growing hordes of youngsters are independently dedicated chronic users. To the mature, their message is that this is a revolution in which adults are helpless; to the young it is a subtle invitation to revolt under the sanction of inevitability. The establishment reacts with irritation and fright. As the advertising escalates and the empirical problem grows, the young and their frequently confused and permissive parents must enter the debate and assess the claims of value. Government agencies were not immune; they delayed for well over a year before setting up appropriate means for the approval, distribution, and control of LSD for research—a significant problem for scientists. Physicians hysterically crying alarm have joined the melee, lumping all bad reactions into one dire outcome: permanent madness. They now also cite somatic dangers.

Reports of chromosomal changes in preparations of lymphocytes raised in tissue culture are not identical with "genetic damage" or clinical disease. Apart from unwarranted biological inferences, the reliability of such findings is not at all established; nor do we as yet know the relationship to dose, to common stimulants, or to drugs related by structure or behavioral effect. Similarly, a finding of LSD-induced stillbirth or stunted growth in rats is not identical to fetal anomalies or germ cell damage. Effects in mice may differ; rodents may differ from man. Similar reports of effects of other drugs (including reserpine) should be evaluated prior to sanctioning alarming reports about LSD. Nor does the persistence of hippocampal discharges for several weeks following LSD, in cats trained to avoid shock, indicate long-term brain changes or brain "damage" in man. Reserpine, in fact, produces more dramatic persisting effects in the hippocampus, and without the in-

NEW BREW

"Would it be right to legalize selected soft drugs? One can see the argument of the young experimenter's. Suppose that the chemical breakthrough had occurred the other way round.

"Suppose that, by the controlled decomposition of a number of common fruits and plants—grapes, hops, grain, potatoes, even dandelions—a cheap method has just been found of mass-producing a new drug. Taken orally, it has marked short-term effects on the human personality. In Britain the most common production technique has been christened 'brewing.' A further chemical treatment of the brewed liquid—simplified version of the distillation process used in manufacturing petrol—will extract from the liquor a colorless and tasteless fluid that appears to contain its active principle. The drug was first invented centuries ago by the Arabs, who called it al koh'l; *it has been forgotten since it was banned as noxious throughout Arabia in the seventh century. Since its recent rediscovery it has acquired a certain glamor among university students and other Bohemians, some of whom claim it helps them to attain a state of Eastern mysticism. Its critics (few of whom have sampled the drug) claim that 'booze,' as the hippies call it, is harmful in itself, leading to irresponsible and overemotional behavior among teenagers. They also assert that its use leads to indulgence in a wide range of anti-social vices—sexual promiscuity, inattention to work, carelessness with money, and so forth. Only yesterday a student was involved in a fatal car accident after using the drug, and the police are investigating several similar allegations over the past few weeks."*

—The Economist, October 7, 1967

tervention of shock. Neither the history of folk usage of psychedelics nor the past 20 years of medical and lay use of LSD have, as yet, produced clear and reliable evidence of somatically dangerous consequences of the drug in man or of a plethora of psychedelic monsters among the offspring of users. While such important research continues, caution about publicity is warranted on both scientific and humane grounds lest we further panic the susceptible. No doubt the social problems presented by LSD could easily be diminished if a clear-cut somatic danger were established; we might, however, have yet to cope with this phenomenon without the aid of such facile warnings!

PSYCHIATRIC COMPLICATIONS OF LSD

The fact is that dangerous and tragic psychological consequences are now unequivocally established, and it is just this fact which users deny, as if it were concocted to attack their autonomy and self-esteem. From our own campus experiences it appears that users who end up in hospitals with prolonged and serious psychoses are initially a quite unstable group. They are, in any event, a small group. Suicides and violence are also uncommon.

More frequently one sees a transient acute panic occurring during the drug state from which recovery occurs, usually within 24 hours or occasionally a few days. If other than supportive and reassuring treatment is required, adequate barbiturate hypnosis or a sedative tranquilizer such as chlordiazepoxide is a simple regimen. A few visits for follow-up can be instituted when required.

Others do not require hospitalization, but often seek treatment because they are concerned about having taken the drug. Two startlingly contrasting aspects of reality have been confronted. These users are perplexed, often depressed, at the prospect of everyday work and experience, and many tend to retreat. They are concerned about some of their specific thoughts and experiences during the drug state, or about their basic life dilemma—which in many instances is indeed serious. And a few others, as noted, may have serious non-drug-induced panics some weeks after the drug state, very much as a bad dream recurs.

We must make a distinction between an unpleasant trip—even one which might lead to emergency room referrals—and various psychiatric complications of drug use which may or may not be contingent on a bad episode. Such unpleasant episodes have "turned off" those who try a casual experiment—a socially valuable response. Physicians should be aware not only that panic can be momentary (and that any escalating panic can look like a toxic state); they should also consider the possibility of complicated drug-taking patterns, of prior instability if not mental disorder.

The facts are that a fair number of people have had LSD without apparent serious untoward effects. The majority of acute untoward reactions with LSD—while severely troublesome—are not as yet proven to be inevitably permanently crippling. The suggestibility, despair, confusion, and latent disorganization of those who unwisely take LSD is, I believe, as crucial a variable as the chemical which renders them—unexpectedly—vulnerable to more trauma than they can handle.

The habitual *long-term* use of LSD for pleasure or escape produces the *possibility* of chronic impairment of good sense and maturation. In this sense, abuse of the drug can surely reinforce a dissociative trend, leading to acute reactions or insidious disorganization and failure successfully to integrate life crises. Indeed, in 1963 Professor McClelland at Harvard noted some of the effects upon the research of the psychedelic fanatics at the height of their proselytizing. Of course, whether poor research is to be considered a drug abuse is a moot point, but some of the features were: a high opinion of their own profundity; dissociation and detachment (a feeling of being above and beyond the normal world); interpersonal insensitivity; philosophical naivete (a simplistic satisfaction in visions); and impulsivity (an inability to predict the consequences of provocative actions). These consequences of drug taking, observed in the very home of transcendentalism, have also been observed in other settings; perhaps we are delineating one intrinsic pattern of outcome of extensive, repeated LSD use. While such descriptions may give us a guide for future research, conclusive and analytical studies simply are not available.

THE RISK OF LSD "TRIPS"

With skilled therapists, one per cent or less of drug experiences may be unexpectedly traumatic. Certainly under these circumstances less than one per cent is traumatic in outcome. With proper immediate follow-up most of these reactions should be therapeutically resolved. This appears to have been the case even though attempts to screen subjects in order to predict reactions have not yielded clear-cut guidelines; nor has it been established that the drug is necessarily traumatic when given to severely mentally ill persons with the structure and follow-up available in therapeutic settings. We can be confident—from the experience in responsible research centers in the 1950s and in European clinics—that the setting and the ability to manage the experience and its aftermath are crucially important. There is no question that good sense and trained skills can help to control bad LSD experiences and outcomes. In all probability older subjects (past 25 years) are less likely to have prolonged reactions linked to a single bad experience. Impressions are that 10 per cent of any batch of trips (whether or not the first) have the potential for trouble. The inescapable problem is that, except within narrow limits, a bad experience and an unwelcome outcome need not be associated and neither can they always be predicted.

THE DRUG MYSTIQUE

My current opinion is that the chief abuse of LSD is irresponsible, alluring, and provocative advertising by the bored mass media. Couched in the language of drugs, an ideology has been insinuated into youth culture by a band of articulate writers and vagrant professionals. These have replaced the old medicine show with an updated campus version complete with readings and tempting arguments, if not pills, to sell: "'Tune in, turn on, drop out." A drug mystique has been welded to the serious shifts and strains inherent in the experience of the potentially most unstable group of any society—the adolescent and young adult.

We need not determine whether this is indeed a "now" generation valuing honesty, love, direct confrontation, uncomplicated action, and avoiding ideologies in favor of simple justice. These values, however germane to the LSD experience, were not born from the drugged mind. The Pied Pipers of LSD—peddling a drug which *can* enhance poor judgment—would lure youth from the acquisition of competence, or even from the serious study of man's attempts to deal with the two orders of reality in his personal development and in his religious, artistic, philosophical, and scientific endeavors. If we attempt to account for the fact that the greatest abuse has been among the well-educated—or those who might be—we would in all honesty have to question the strange tolerance for these psychedelic follies in campus cultures. Forgetting both Freud and James, many of our teachers and intellectuals are either entranced or perplexed by stories of LSD-induced revelations. They appear neither to have learned, nor to teach, from experience.

THE DRUG CULTISTS

In brief, much of the advertising may "take" because in exploring new frontiers we have lost confidence in our traditions and seem to have avoided dealing both with the rationalizations and the honest probings of the drug cultists and other youth on campus. In any event it is clear that "education" of the drug-prone young will require more than a troop of physicians.

The psychedelic apologists insist they have the civil right to take any agent which does not harm others. But it is hardly a private matter (and it is a civil matter) when irresponsible proselytizing—born from the spirit of oedipal revenge—leads to a number of drug-related cases in children and young adults requiring psychiatric care for either brief or long periods of time. It is often forgotten that the real and recent momentum for such claims arose when a few psychologists who began to peddle the drug (around 1962) resented the notion that medical or even nurses' training was required for the responsible administration of potentially toxic agents. The problem, of course, is that the psychedelic gurus are not in a position to manage the consequences of their ideological schemes. When they admit the drug might be dangerous they do so by insisting that only the very courageous should dare it! The rationalizations which prevail among those who experiment with LSD are often borrowed from these various preachings. They wistfully believe that the mirror in which they can find the "true self" lies dormant, awaiting only a drug to reveal to them perhaps the fairest one of all! Primitive cultures have at least the modesty to seek a receptivity to God. Self-analysis with these drugs is a major source of confusion and leads to serious problems.

MOTIVES FOR USE

The motives for LSD use are varied. Sociologists refer to problems of commitment and alienation and add thereby to the younger generation's verbal mythology. We might remember that wild analysis and "psyching" characterized youth of previous generations, as did self-experiments with hypnosis even in the nineteenth century. Curiosity about the mind, about what can be experienced, about who one is, and will be, is expected.

Of the college users I have studied, a "need to feel," a pervasive sense of being constricted seem characteristic. One wonders whether the consequences of a "boundary-less" or destructively permissive upbringing leads to a lack of distinctions, a deficient recognition of self-experience, and a frenetic search for it.

Some college students clearly tried the drug as part of clique activity; taking the drug puts the student one-up; he has "been there." It can provide the basis for a loose group cohesion. For this group, magical transformation of reality, omniscient union rather than the painful confrontation of separateness and effort, is a lure. Old limits can be dissolved and—with a single gulp—philosophical infants are transformed into sages. The frustration of years of inexperience are replaced by an intense arcane experience; it is as if the secrets of the parental bedroom are instantly transcended by the mysteries of the drug! The tables are turned as the young turn on; now it is the parents who stand by in perplexed, uncomprehending, and fascinated impotence.

Others sincerely feel they should confront an experience advertised to be so important. They can be dared by accounts of pleasant or assertedly profound experiences. They see the drug as an emotional fitness test, somewhat analogous to physical fitness. The issue for many is "control." They experiment with the right to drink and test their ability to stop. At this age they are doing the same often with cigarette smoking, studying, or with masturbation. In general they are rehearsing their strength and autonomy at a time when their lives are largely unwritten. Many behaviors of this age constitute a probing for consequences—an impatient attempt to leap the barriers of time, to seize now the fruits and risks promised in the future. This underlies

many of the grimmer statistics of the 18 to 25 age group, including accidents and suicide.

THE VALUE OF PSYCHEDELIC DRUGS

In psychiatry we know something about how to use drugs to cope with grossly inadequate functioning and to compensate for deficit states. We know that many serious persons have reported some transient or even long-term value in the LSD experience. They say their aesthetic appreciation is enhanced, and McGlothlin indeed has some evidence for a slight shift of this sort in some but not all of a group of normal subjects. But if we search for major productions of art, letters, music, or visionary insight, few clear-cut monuments to the drug are available. The effects of the drug do not seem to have compelled creativity. Huxley's greatest output preceded his mescaline states; thereafter, as I read him, he tended to write *about* drugs, not to create with them.

If we ask whether there have been cultures which have eradicated mental disorders and disease with these drugs, or groups which have seen the dissolution of deviant behavior or even drug-linked behaviors (for example, alcoholism), we find some slight association, but no clear-cut overall differences. In fact, the use of these drugs is often associated with some form of psychosocial deprivation or, equally, with marked privilege, as in Brahmins and college students. That private satisfactions might have been achieved, that some groups using these drugs could have attained some spiritual equilibrium seems apparent, but whether the drugs and their effect are both necessary and sufficient to get such results—whether no alternative means exist within a culture—is another question.

We should not forget to assess the cost of sustained euphoria or pleasure states; we have to wonder whether the mind of man is built to accommodate an excess of either pleasure or rationality. We do not know whether or not there are individuals with sufficient strength to take these drugs for growth or pleasure within the social order without increased and credulous alienation from it. Is a stable person really under sufficient control of his motives and shifting circumstances, let alone the dosage, to take these drugs as a civil right for whatever personal reasons he wishes? If so, who has to care for the consequences of his misjudgments? Some side effects cannot be avoided if we are correct about the way the mind is built and if we learn from the effects of drugs on much simpler biological systems. How can the stability of religious custom protect drug takers who have little authentic orientation to religion, and only unstable groups and leaders of dubious reliability upon whom to lean?

Thus etched upon the variables of culture and personality are drugs with a certain skew toward that mystical realm of the mind which knows both psychosis and religion, both heightened and useful self-insight and impaired and distorted judgment about the everyday world. Perhaps similarities and differences of these various chemicals and their effects could, if analyzed, reveal means for finer control of these experiences—at least in terms of their intensities. In general, it seems to me that we have been more awed than aided by our experience with these drugs. They still remain agents which reveal but do not chart the mental regions; to do that we must employ mental faculties available in the undrugged state. Accordingly we should do better than repeat the ontogeny of past encounters with mind-revealing drugs. We should strive to make distinctions so that, if we learn, in the future, how the elements of mind are related, we can specify for the chemist the designs he should seek. But first we have to learn to analyze what these drugs can teach us about the ways in which the chemical organization of the brain is related to the dimensions of mind.

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