PSYCHEDELIC STATES AND SCHIZOPHRENIA

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Reason is only part of a man; when it usurps most of one's living space it becomes a tumor . . . a cancer gnawing away the other parts of human nature. John Langdon-Davies

I swear, gentlemen, that to be too conscious is an illness, a real, thoroughgoing illness. Fyodor Dostoevsky

Just as madness is the beginning of all wisdom, so is schizomania the beginning of all art and fantasy. Hermann Hesse

We regard evolution as primarily psychical transformation . . . the story of life is no more than a movement of consciousness veiled by morphology . . . as children of a transition period, we are neither fully conscious of, nor in full control of, the new powers that have been unleashed. P. Teilhard de Chardin

As long as a man can talk to himself about himself, he retains some sense of personal identity and separateness. Once he stops talking (self-reflective thinking) and begins to listen "to the song going on within him," all boundaries, internal and external, cease to exist—including the internal-external boundary itself. In some cases, this state is experienced or interpreted as psychotic death; in others, as cosmic union. If the song of silence becomes too loud and discordant or falls on deaf ears when communicated, the individual is likely to feel and act crazy. If, on the other hand, the song becomes a compelling symphony that titillates the consensual threshold, the individual is more likely to be hailed as an artist or prophet.

Throughout man's history, millions have been judged psychotic, only a few prophetic. The incidence of manifest schizophrenia is estimated at a fairly constant i per cent in all racial and ethnic groups (Huxley et al., 1964). Prophets are estimated in numbers, not percentages, for ". . . few are capable of holding themselves in the state of listening to their own songs" (Henri, 1923); ". . . rare indeed are madmen equal to their madness" (Michaux, 1963); ". . . many
succumb during the cure" (Kierkegaard, 1956); while "... only the strongest of them force their way through the atmosphere of the Bourgeois-Earth and attain to the cosmic" (Hesse, 1929).

Some investigators consider psychedelic drugs a potential key to understanding and thereby reducing schizophrenia. Others welcome the new drugs as an unparalleled means of inducing transcendent states of consciousness. Few claim both. To suggest that the same agent may induce or mimic psychosis and transcendence seems highly improbable and contradictory. Both psychotomimetic and psychedelic researchers usually accept the traditional view of the two states as distinct and unrelated (Bucke, 1923). Those with a psychedelic approach to the drug experience readily embrace the less-partisan analyses of William James, Anton Boisen, and more recently Carl Jung, but fail to note that these writers attempted to "study the experiences of inner defeat and inner victory, the one in the light of the other" (Boisen, 1952). Also ignored is their conclusion that a strong association exists between the pathological and the mystical.

The reluctance to acknowledge a link between the normal, abnormal, and supranormal stems in part from the implicit belief (fear?) that similarities preclude essential differences. A corollary belief holds that schizophrenic and mystic denote types of persons rather than qualities of experience and behavior. Accordingly, to accept the cosmic revelations of patients as possibly valid and valuable would somehow discredit normality and transcendence. Yet "psychotic insight" is frequently a prelude to creative insight; religious conversions often occur in the wake of psychotic episodes. In Asian cultures, for example, the shaman's apprenticeship is usually marked by recurrent "hysterical crises" (Eliade, 2964). The converse is also true. "Divine discontent" may alternately revitalize and paralyze its host. The line between "soul sickness" and mental illness oscillates with time and circumstance.

A wide variety of heightened states of awareness have important similarities and are continuous with normal waking consciousness. Whatever similarities exist do not preclude or minimize differences, either between individuals or within the same individual on different occasions. This contention is strikingly confirmed by the drug-induced experiences of normal subjects. Although characteristic features are prominent, individual differences in reactivity abound. Even within the same person, the experience vacillates widely along the psychotomimetic-normal-psychedelic continuum. These observations suggest that schizophrenic and psychedelic states are dynamic variates of a common core experience differing possibly in cause, emotional valence, or outcome. Discovering the determinants and personal meanings of variable response to psychedelic drugs would enhance our understanding of both psychotic and transcendental states.

*Schizophrenic and Psychotomimetic Research*
Since the discovery of LSD-25 in 1943, numerous comparative studies have been conducted to ascertain the relationship between naturally occurring and drug-induced altered states of consciousness. As indicated earlier, almost all this work hypothesized that psychotic and psychedelic states were either identical or mutually exclusive entities. In addition to this conceptual fallacy, a number of limitations and methodological flaws have characterized psychotomimetic research. It has become a truism that the nature, intensity, content, and aftermath of the drug experience are functions of complex transactions between biochemical changes, the subject's past history and personality, the expectancies of all persons involved, and the conditions surrounding the drug-induced state. Yet the influence of non-drug factors has generally been ignored or minimized rather than controlled and clearly specified. As a result, the collective findings are inconsistent and contradictory.

What Is Schizophrenia?

The problem of interpreting psychotomimetic research is compounded further by the enigma surrounding psychotic states. Etiology of the multiple overlapping groups of schizophrenic syndromes is presently obscure, and diagnostic criteria are notoriously unreliable. Bleuler's (1965) recent critique of contemporary views ranged from biochemical to psychological, from genetic to environmental, from pragmatic to existential, from descriptive to dynamic orientations. His comprehensive review of the empirical evidence led to the conclusion that no single specific cause of schizophrenia has been found. Yet various theorists have reported findings indicating a genetic factor, biochemical irregularities, a distinct familial pattern, a characteristic personality structure of either the patient or his mother, an atypical social milieu, and so on. The multiple theories and seemingly conflicting evidence can be reconciled if it is recognized that (a) an ever-increasing range of experiences and behaviors are currently labeled schizophrenic, (b) there is nothing in schizophrenic phenomenology that would be quite strange to the healthy, i.e., there is nothing intrinsically pathological in the experience of ego loss, (c) a variety of avenues can lead to a schizoid state, and (d) various levels of interpretation of the empirical evidence may have entirely different individual and social consequences and yet be simultaneously valid and consistent.

These contentions may be strikingly illustrated by comparing two currently prominent but opposing points of view, namely, the disease model and the social-existential perspective. Representative of the disease model is the adrenochrome metabolite theory proposed by Hoffer and Osmond (1960). These investigators present convincing evidence that a tendency to schizophrenia is inherited. According to this view, a genetic mechanism produces consistent physiological, biochemical, and clinical peculiarities, which result in perceptual and affective changes that in turn determine the extensive psychosocial consequences of the illness. The hypothesized genetic mechanism is assumed to increase the production of adrenochrome and adrenolutin, substances that are psychosis- mimicking in many animals, including man. In
support of their theory, Osmond and Hoffer (1966) review evidence from a variety of sources that tentatively indicates excessive quantities of these substances in acute schizophrenics and some subjects who have taken LSD-25.

These investigators also raise the interesting question of why a genetically determined condition that is so obviously maladaptive should persist in all mankind at such a stable rate. They suggest, "...schizophrenics have traits conferring Darwinian 'fitness' in a variety of environments." Research findings are cited indicating that schizophrenic patients have a high tolerance for active chemicals, a low incidence of allergies, and are highly resistant to infectious diseases as well as wound and surgical shock. In addition to their apparent biological advantages, Osmond and Hoffer point out that the same psychological effects of schizophrenia that have such painful, disruptive consequences in a highly urbanized society may have great personal and social value in less-technological cultures. Furthermore:

A brief scrutiny of the history of art, politics, philosophy, religion, and science itself shows that all these activities have from time to time been much influenced by those whose perceptions ranged from the unusual to the bizarre (p. 305).

Viewing the relationship between culture and psychopathology within an evolutionary framework, Hammer and Zu-bin (1966) also suggest some possible culturally adaptive functions of schizophrenia. They point out that the characteristics of the mentally ill occur in most people, and symptoms such as anxiety, guilt, shame, and depression are often harnessed to socially useful purposes. Similarly, Bowers and Freedman (1966) and Ludwig (1966) emphasize the healing function of schizophrenic states and consider them a major avenue of new knowledge and creative experience.

In sharp contrast to the genetic/disease theory, Szasz, Laing, and the existential analysts stress the familial/social origins of schizophrenia, and its existential significance. Unlike physical illness, Szasz (1961) considers "mental illness" a culturally relative myth that subtly strips the "patient" of personal responsibility and basic human rights. He also emphasizes the strong tendency in a technological society toward indiscriminate application of the mental-illness label with its pejorative connotations and unwarranted promise of "treatment" and "cure." Similarly, Laing (1967) asserts that there is no such condition as schizophrenia, but that the label is a social fact and the social fact is a political event. He describes the schizophrenic simply as someone who has queer experiences or acts in a queer way, from the point of view usually of his relatives and mental-health workers. Citing a large body of research findings, Laing goes on to state unequivocally, "...no schizophrenic has been studied whose disturbed pattern of communication has not been shown to be a reflection of, and reaction to, the disturbed and
disturbing pattern characterizing his family of origin," and • • • without exception, the experience and behavior that gets labeled schizophrenic is a special strategy that a person invents in order to live in an unlivable situation." (italics included in original)

Existential analysts such as Binswanger, Jaspers, and Storch consider the virtues of so-called normality vastly overrated in our culture, and emphasize the truth content of schizophrenia and its potentially constructive aspects. The key features of the existential position are well described by Stern (1964):

The schizophrenic is the unwitting explorer and herald of unfathomed boundary areas of human existence. In his illness, uncanny potentialities, which lurk in the shadows of every human existence, become real. He bears witness to an experience of universal import: the confrontation with primordial fear, surrender to naked honor, where the normally veiled or hidden aspect of the fundamental forlornness of existence is revealed with shattering impact. Viewed in this fashion, the madness of the schizophrenic transcends the category of mere pathological accident, and becomes an existential mode of being which puts into question the foreground of consensually validated, 'objective' reality, and unveils the existence of other, backstage, realities which are no less real for being generally kept in the shadow (p. 168).

There is no essential conflict between the genetic/disease and the social/existential conceptions of schizophrenia. Both positions recognize the potential benefits of schizophrenic states, be they biological, psychological, or cultural. Also, social/existential writers do not rule out a possible evolutionary/genetic factor but prefer to speak of schizophrenics as "children of a transitional period" (P. Teilhard de Chardin) or an "experiment in nature" (Adolph Meyer), as "unwitting explorers" or as having "one dimension too many" (Hermann Hesse). Conversely, Hoffer (1966) has stated that, despite its genetic origin,

[Schizophrenia] is also psychological, sociological, and even theological. For like the psychedelic reaction, the molecular abnormality in schizophrenia merely sets off the train of events which are perceived and reacted to by a person in terms of his life's programming. . . . The same factors that lead to a psychotomimetic reaction in normal people probably lead to the psychosis features of schizophrenia (p. 128).

As suggested earlier, diverse views of schizophrenia usually reflect different levels of explanation or interpretation that complement, rather than pose alternatives to, each other, i.e., both the disease and the existential positions are valid and may be simultaneously endorsed.
Another source of confusion is the vagueness and wide variety of conditions labeled schizophrenic. In many cases of conflicting evidence, it is apparent that investigators are not studying comparable patient groups, behaviors, or subjective experiences. Similarly, what is delusional thinking to one observer may be novel insight to a second observer.

The only substantive difference between contemporary views of schizophrenia concerns the individual and social consequences of adopting one frame of reference to the exclusion of all others. Numerous writers have described in detail the anti-therapeutic and often inhuman consequences of treating unusual mental and perceptual experiences as byproducts of a disease process that lies outside the agency of the person, i.e., as an illness "that the person is subject to or undergoes, whether genetic, constitutional, endogenous, exogenous, organic, or psychological, or some mixture of these" (Laing, 1967). Treating schizophrenia as "nothing but" pathology defines the patient as a non-responsible object, rejects the validity of multiple realities, and ignores the potential value of altered states of awareness. If nothing else, the advent of psychedelic drugs has given impetus to the emerging view of schizophrenia as a potentially orderly, natural sequence of experiences that should be permitted to run its course rather than suppressed, arrested, or obliterated.

This sequence is very seldom allowed to occur, because we are so busy "treating" the patient, whether by chemotherapy, shock therapy, milieu therapy, group therapy, psychotherapy, family therapy • • • (P• 85).

No age in the history of humanity has perhaps so lost touch with this natural healing process that implicates some of the people whom we label schizophrenic. No age has so devalued it, no age has imposed such prohibitions and deterrents against it, as our own (p. 88). (italics in original)

In his recent book, Foucault (1966) traces the close historical parallel between the rise of the disease model of madness and the increasing dominance of reason and order as governing principles in Western civilization. He shows how madness gradually lost its rich metaphoric meanings, how it was progressively demystified. "What was once a dialogue between reason and unreason became a monologue in a language which exhausted itself in the silence of others." Reason has become almost totally cut off from one of its chief sources of vital strength, its dialectical counterpart. Foucault concludes that madness and unreason cannot be explained. "It is both a fundamental and ultimate category of human existence, and its utterances reveal ultimate truths."
The ambivalence expressed in these representative observations and allegations concerning contemporary approaches to schizophrenia also applies to drug-induced psychedelic states. The current fascination and controversy over LSD and similar compounds may be viewed as a counterreaction to our ultra-rational commitment to structured, controlled forms of experience, i.e., the restricted range of experience sanctioned by public consensus (Mogar, 1966). A corollary to this feature of modern culture is our inordinate investment in language and higher-order abstractions at the expense of non-verbal experience and empathic communication. Narrowing the scope of human awareness to manageable proportions has no doubt permitted man's remarkable technical progress and made his existence far less precarious. Unfortunately the toll exacted in sensibilities and imaginative thought has been excessive and, for some people, intolerable (Mogar, 1965a). No doubt many such individuals, with and without the aid of drugs, are currently labeled schizophrenic.

**Psychotomimetic Research**

Having described the enigma surrounding both schizophrenic and psychedelic states, and the cardinal importance of the cultural context in which they occur, it is not surprising that psychotomimetic research has yielded contradictory results. As suggested earlier, the intrinsic complexity of the phenomena involved has been compounded further by various conceptual and methodological flaws. In extensive reviews of LSD studies (Mogar, 1965c, 1967), it was shown that almost all the work conducted thus far fit two essentially different research paradigms that are mutually exclusive in every major respect and yield opposite findings. One approach, the clinical investigation, views the drug as a liberator that facilitates accurate perception and insight (psychedelic orientation), pays particular attention to intrapersonal and interpersonal factors, optimizes the conditions under which the drug is taken, and obtains results indicating various kinds and degrees of performance enhancement. The other major approach, the laboratory investigation, usually views the drug as a stresser capable of simulating psychotic behavior (psychotomimetic orientation), ignores non-drug factors, employs impersonal, "objective" procedures, and obtains results indicating various kinds and degrees of performance impairment. Needless to say, almost all comparative studies of schizophrenic and drug-induced states have conformed to the laboratory paradigm. As a result, the major outcome of this work has been conflicting lists of superficial similarities and differences between diverse unspecified psychotic patients and diverse unspecified "normal" subjects given LSD under unspecified conditions.

There is general agreement that LSD can amplify and caricature schizoid deviations from conventional thinking and perception. Recent investigators emphasize, however, that the drug experience is at times similar, but not identical; that it can model, but not ape, a chronic psychotic state (Cole and Katz, 1964; Hoffer, 1965). It has been found, for example, that hallucinatory patterns and images are highly similar in schizophrenic patients and LSD subjects.
(Horowitz, 1964), but in the latter case visual changes are recognized by the subject as not being veridical perceptions (Sandison, 1959). A similar difference is usually reported with regard to “delusional” thinking (Manzini and Saraval, 1960). The relevance of the hallucinogenic properties of LSD to schizophrenia is further lessened by the finding that visual hallucinations seldom occur in schizophrenia, and conversely, auditory hallucinations are rare in LSD experiences (Buss, 1966).

Most investigators presently assume a basic similarity between the two states while attempting to identify essential differences and possible determinants of these differences. The basic similarity is variously termed a dissolution of the ego, an expansion of consciousness, a regression to infantile modes of functioning, a grossly impaired cognitive/perceptual "filter mechanism," a breakdown of self/world boundaries, or less judgmentally, a heightened state of emotional arousal, an increased sensitivity to stimuli in all modalities, a marked lowering of the threshold between conscious and unconscious activity, or a lessened capacity to think and perceive abstractly in conventional terms. These views of the communality among altered states of consciousness all imply a wider, more inclusive experiential mode—whether enlightening or chaotic. While some emphasize a greater access to intrapsychic activity, others stress an increased sensitivity to external events.

Individual reactions to comparable deviations from normal consciousness vary widely. Many researchers have concluded that schizophrenics and most LSD subjects differ consistently in their reactions to “disturbances” of consciousness. A number of reasons for differences in response have been suggested. The most obvious reasons given are that the LSD subject begins with an unimpaired character structure and knows that his unusual mental state is temporary and due to a drug. He is able to look upon the experience as a spectator, whereas the schizophrenic is, from the onset, an actor portraying a problem that affects him personally (Vinai, 1958). Other distinguishing features frequently reported include emotional lability, ecstasy, and laughter, unimpaired reality-testing, and outward passivity, in contrast to the schizophrenic’s characteristic emotional flatness, periodic panic and anxiety, autism and dissociation, and occasional outbursts of hyperactivity (Cohen, 1964; Roubicek, 1958; Sandison, 1959).

In many studies, no one or combination of these features has been found to differentiate the two states (see, e.g., Trouton and Eysenck, 1961). Negative results have typically been attributed to mismanaged drug sessions (Masters and Houston, 1966) or personality factors. Cohen (1964), for example, reports that when the drug is given blind, response to it is much more overwhelming and anxiety-ridden, i.e., psychotomimetic. Similarly, Hoffer (1965) found that LSD produces a prolonged schizoid experience in prepsychotic subjects. The collective evidence strongly indicates that almost all adverse reactions to LSD are due to non-drug factors, namely, inadequate preparation, negative expectancies, character deficits, and poorly
managed sessions. However, the same reasoning can be applied to psychotic states. Although not drug-induced, some schizophrenic reactions may have "adverse" effects because of personal limitations or an uncongenial environment. As suggested earlier, there is nothing intrinsically pathological about ego loss, regardless of its determinants—genetic, biochemical, familial, or social.

Reviewing psychotomimetic research, one is struck by the tendency in this work to indiscriminately view all unpleasant effects of the drug as "mimicking psychosis," and all positive effects as psychedelic or transcendental. Stated another way, LSD investigators have almost invariably showed a preoccupation with the schizoid features of psychedelic states and completely ignored any possible psychedelic features of schizophrenic states. As indicated earlier, the focus on disease entities rather than transactional processes obscures the non-pathological aspects of psychosis and fails to take into account the vague, wide variety of conditions currently labeled schizophrenic.

Differences in reaction to similar altered states of consciousness (e.g., pleasant-unpleasant; pathological-transcendental) and the determinants of these differences (e.g., character structure; interpersonal and social milieu) are essentially the same whether the experience is naturally occurring or drug-induced. That is, differences in reaction and their determinants do not clearly differentiate schizophrenic from psychotomimetic or psychedelic experiences. Both schizophrenic and drug reactions oscillate widely along pleasant-unpleasant, pathological-transcendental dimensions—and for the same reasons. Differential reactions such as those cited above do little more than define the extremes of an unpleasant/pathologicalpleasant/transcendental continuum. Most reactions to an altered state of consciousness are probably dynamic mixtures of awe and dread, terror and ecstasy, delusion and revelation.

Two major hypotheses can be derived from this view that are consistent with current approaches to mental illness as well as the results of LSD research. First, the LSD subject can be clearly distinguished from the chronic schizophrenic patient who is hospitalized for prolonged periods. Second, unpleasant reactions and pathological reactions are not identical, nor do they necessarily covary. The same holds for the mistakenly assumed relationship between the pleasant and the transcendental. Hellish LSD experiences, no less than the joyously cosmic, may have a validity "that transcends mere pathological accident." Similarly, although most hospitalized patients seem aptly described as "unsuccessful mystics" (Eliade, 1964), some have experiences early in their illness that are indistinguishable from religious, creative, or transcendental states (Bowers and Freedman, 1966). These hypotheses warrant further elaboration.
Some Meaningful Distinctions

Like most research on schizophrenia, psychotomimetic studies have used chronic hospitalized patients almost exclusively (Higgen and Peterson, 1966). Patients recently admitted for the first time have seldom been included. As a result, these studies demonstrate marked differences between psychotic and LSD subjects but add little to our understanding of the schizophrenic process. Schizophrenia is a catch-all category in most hospitals for marginal members of society. After extensive investigation, Gendlin (1966) concluded that a large subgroup of patients were simply pushed out of the world very early and did not display the cardinal symptoms associated with schizophrenia. Consistent with this view, few hospitalized patients manifest depersonalization or disturbances of body and self image. Buss (1966) reports substantial evidence indicating that such "disturbances" are found more frequently among neurotic and healthy people.

A mass of projective-test data fails to provide evidence of greater imaginative richness in most schizophrenic patients, but instead reveals a poverty of associational material and fantasy activity (Beck, 1964; Rickers-Ovsiankina, 1960). Perhaps these results offer a tentative basis for explaining why schizophrenics, when given LSD, denied that the experience was anything at all like their psychotic episodes (Turner et al., 1959). A similar link is suggested by the findings of Osmond and Hoffer (1966) that only acute schizophrenics and some LSD subjects produce the excess of adrenochrome and adrenolutin predicted by their genetic theory of schizophrenia.

Parenthetically, these results are also consistent with differences between schizophrenic adults and schizophrenic children. While most adult patients are unresponsive to psychedelic therapy, a number of independent studies have reported dramatic alleviation of autistic symptoms in severely withdrawn children following LSD treatment (Mogar and Aldrich, 1967). This parallels the findings that adult schizophrenics, unlike autistic children, were generally extraverted and hyperactive during their childhood (Hoffer and Osmond, 1966b). Similarly, Wagner and Stegemann (1964) found that introverted children (emotionally inhibited, active fantasy life) were least likely to end up as schizophrenic adults.

This line of evidence suggests that a person under the influence of LSD may fit the traditional description of schizophrenia more closely than the majority of patients currently placed in this diagnostic category. On the other hand, there is a striking similarity between the initial experiences reported by some schizophrenic patients and drug-induced experiences. Partial recognition of these qualitatively different "schizophrenias" is implied in currently employed distinctions between chronic/acute, process/reactive, endogenous/ exogenous schizophrenia, and between regressive/restitutive symptoms. These typologies are variously definec.i in terms
of differences in etiology, successive stages of a unitary process, prognostic or treatment implications, and so on. Although such distinctions are seldom used consistently and have questionable validity, each implies an essential difference between an intense, temporary altered state and a relatively stable condition of long duration. On this point there is little disagreement.

Arieti (1955) makes a sharp distinction between the acute, or anxiety, stage and the chronic, advanced phase of schizophrenia. Many patients are frightened and perplexed when they first recognize cognitive/perceptual changes. They express a fear of going crazy, of being hospitalized, or of dying. During the advanced stage, "psychotic insight" occurs, followed by an enduring resolution of novel perceptions and unusual sensations. The patient becomes apathetic, withdrawn from social interactions, and finally comes to terms with his altered state by developing symptoms. During the acute phase (or type) of schizophrenia, many patients describe a profound inner state rich in imagery and meaning (Kaplan, 1964). Others report being swamped by an incoming tide of sensations (McGhie and Chapman, 1961). Whether the emphasis is on internal or external events, descriptions of this initial fluid state are indistinguishable from personal accounts of LSD experiences.

In a comparative study of subjective reports obtained from LSD subjects and incipient schizophrenics, Bowers and Freedman (1966) identified a common core experience characterized by a disquieting sense of dread coupled with intense happiness, a fear of breakdown together with an awareness of breakthrough. It was concluded that psychedelic and psychotomimetic phenomena were closely related, differing primarily in outcome; i.e., the consequences of a heightened state of awareness may be either harmful or beneficial. According to Bowers and Freedman, a complex interplay of intrapsychic and environmental factors determine and shape the final result. Particular emphasis is given to the degree that such experiences are delusional or adaptive, as a basis for judging their validity. Following William James, Bowers and Freedman assert that personal discoveries, insights, or new perspectives must "run the gauntlet of confrontation" with total experience before their significance can be determined.

After emphasizing the similarities between acute psychotic episodes and LSD experiences, Prince and Savage (1966) also conclude that the major differences between them lies in their consequences for the individual. These writers use the concept of regression to account for similarities between altered states as well as subsequent differences in outcome. Psychotic, mystical, and LSD experiences are characterized by common regressive features. These include a return to preverbal, magical modes of thought, renunciation of worldly interests, ineffability, the noetic quality, ecstatic feelings, and a sense of cosmic union or suspension of self-nonself boundaries. Such experiences may alternately impair and expand awareness. Although regressive in similar ways, Prince and Savage make a sharp distinction between an
altered state having self-destructive consequences and one that facilitates self-realization:

A psychosis is a pressured withdrawal with—in many cases—an incomplete return. A mystical state is a controlled withdrawal and return; a death and rebirth, often a rebirth into a world with a radical shift in its iconography—a death and transfiguration (p. 74).

Turner (1964) makes a similar distinction between schizophrenia and what he terms "oneirophrenia." Schizophrenic states are preceded by a prolonged period of painful struggle with irrationality. Eventually, primary regressive activity breaks through the secondary ego-control system uninvited and unwanted. In oneirophrenic states such as those induced by psychedelic drugs, secondary control processes are willingly withdrawn, and feelings of exhilaration prevail. Turner emphasizes that the eruption of unconscious forces in schizophrenia is born of frustration (double-bind sort), a stress that cannot be solved by rational means. There remain three possibilities: murder, suicide, and psychosis. Consistent with this view, Aaronson (1966) found that by hypnotically eliminating and expanding a perceptual modality such as depth or time, he could simulate psychotomimetic phenomena. His studies indicate that schizophrenia is a psychic analogue for death, whereas psychedelic states are characterized by perceptual expansion and a commitment to living.

"The Supreme Fiction" and Other Realities

The distinctions made by these writers call attention to common features and meaningful differences between psychotomimetic and psychedelic states. To avoid semantic confusion, it should be emphasized that both "drug-induced" and "naturally occurring" experiences may have psychotomimetic or psychedelic properties. Drugs offer an unparalleled means of deliberately prodwing an altered state under controlled conditions. As indicated earlier, however, unique features of drug-induced states are superficial and relatively insignificant for comparative purposes; i.e., they are often indistinguishable from psychosis, on the one hand, and mystical states, on the other. Similarly, schizophrenia "is potentially liberation and renewal as well as enslavement and existential death" (Laing, 1967).

Although meaningful differences between psychotomimetic and psychedelic phenomena can be specified, it is presently impossible to predict the nature, course, and outcome of an anticipated altered state, except in very broad terms. It is hardly less difficult to identify an ongoing experience as psychotomimetic or psychedelic—either from an objective or subjective frame of reference. With the control afforded by mind-altering drugs, the ability to identify and
predict specific reactions promises to increase greatly. To some extent, however, unpredictability is an essential ingredient of altered states. By their very nature, psychotomimetic and psychedelic experiences involve high risk, shock and surprise, venturing into unknown realms, and uncertainty concerning outcome. At the level of sensation and perception, the phenomena of altered states are characterized by oscillations, immediacy, and nearness, while practically devoid of objectification and invariance (Klüver, 1965):

Distinctions within this range are difficult to make, since on the perceptual, hallucinatory, imaginal, and other levels, different kinds of "reality" are continuously judged and experienced. Under pathological as well as normal conditions we operate on, or relate ourselves to, many different levels of "reality," and are able to shift, or are forced to shift, from one level to another (p. 24).

The fluidity and complexity of the phenomena involved seem to insure some measure of unpredictability, even though the key features of psychotomimetic and psychedelic reactions, as well as their determinants, have been identified. It is safe to assume that individual response is a function of ongoing transactions between a finite number of intrapsychic and environmental factors. The interplay of these variables results in an altered state that is brief or prolonged, pleasant or unpleasant, voluntarily or involuntarily regressive. The experience may represent self-abnegation or self-expansion, a complete or incomplete return, death with or without rebirth. Its consequences may be destructive or constructive, delusional or adaptive—today, tomorrow, or never—from the standpoint of either the individual or society. It seems apparent that these distinctions between psychotomimetic and psychedelic reactions offer meaningful guidelines for understanding, not programming (1) varieties of altered states.

In addition to their inherent unpredictability and the complexity of the process involved, no universal criteria exist for evaluating the validity or desirability of specific reactions and outcomes. Certainly the nature of a person's experience and his subsequent mode of being-in-the-world are meaningful ways of distinguishing psychotomimetic from psychedelic states. However, the current tendency to equate psychotomimetic with harmful, and psychedelic with beneficial, represents a gross oversimplification. What constitutes an "adverse" reaction or aftermath to variously induced altered states is extremely difficult to determine. As suggested earlier, the meanings of the experience may be equally valid whether joyful, dreadful, or both. What have been variously called psychotic episodes, mystical states, religious conversions, maturational crises, nadir and peak experiences, may at times lead to misery and helplessness and at others to personal growth and self-actualization (Maslow, 1964; Mogar, 1965b).

Long before the advent of synthetic mind-altering drugs, Anton Boisen suggested that acute
mental illness and sudden transformations of character

... both arise out of a common situation—that of inner conflict and disharmony, accompanied by a keen awareness of ultimate loyalties and unattained possibilities. ... Where it is unsuccessful or ideterminate, it is commonly spoken of as "insanity." In those constructive transformations of the personality, the individual is relieved of his sense of isolation and is brought into harmony with that which is supreme in his hierarchy of loyalties. He succeeds in effecting a synthesis between the crisis experience and his subsequent life which enables him to grow in the direction of inner unification and social adaptation on a basis conceived as universal. In mental illness, no such synthesis occurs. The patient may get well, but he may not solve his problem (Boisen, 1952, p. viii).

Viewing psychosis as an indeterminate but potentially problem-solving process (rather than a disease process) is consistent with major trends in contemporary psychiatry (Bleuler, 1965; Searles, 1961). As indicated earlier, the effects of LSD on normal subjects has given impetus to the emerging concept of schizophrenia as an orderly, natural sequence of experience that should be permitted to run its course rather than suppressed, arrested, or obliterated. Representative of this trend, Kaplan (1964) describes the outcome of this process:

The cure or solution must be neither a return to the so-called normality that preceded the illness nor a negation of the illness. The new state must rather involve a genuine moving to a new solution, a movement which would have been impossible without the illness (p.

Other investigators indicate that attitudes and practices currently prevalent in our culture contribute greatly to the illness by disrupting the death-rebirth sequence (Adams, 1963; Laing, 1967). In this respect, Bateson (1961) posed the question of why so many who embark upon a voyage of discovery fail to return from it. "Do these encounter circumstances either in family life or in institutional care so grossly maladaptive that even the richest and best-organized hallucinatory experience cannot save them?" Similar sentiments have been passionately expressed by Henri Michaux (1967):

Recent medications prevent the insane from following their alienation through. They have thereby lost their own "liberation." Even when they cannot really be cured, they are damped. Strange, dull, "improved" cases, which one encounters at present in the asylums, or outside, madmen frustrated of their madness ... (p. 190).
It is noteworthy that Michaux’s observations were prompted by his personal experiences with mescaline. As suggested by Osmond (1965), the mind-altering drugs have great possibilities for training psychiatrists and other mental health workers, "who are then less likely to produce standardized answers for their patients' distresses." A similar application of LSD-25 has led to the design and construction of new hospitals for mental patients. By personally experiencing an altered state of space, time, color, and texture, it was possible to create architectural environments more congenial to the experiential worlds of schizophrenia (Osmond, 1965). These developments are consistent with Laing's plea for replacing "the degradation ceremonial of psychiatric examination" with "an initiation ceremonial, through which the person will be guided with full social encouragement and sanction into inner space and time, by people who have been there and back again."

As suggested previously, conventional "normality" and conventional "reality" have become increasingly narrow and exclusive in our ultrarational, technological society. Conversely, a progressively wider range of experiences and phenomena are currently defined as "abnormal" and "unreal." By present-day standards, both psychotomimetic and psychedelic states qualify as "loss of reality" experiences. This point of view is being challenged by social-existential and psychedelic approaches to altered states of consciousness, with their emphasis on multiple, equally valid realities, the sterility of conventional experience, and the continuum of normal, psychotomimetic, and psychedelic states.

No doubt, far more people today "suffer" from a lack of psychedelic experiences than from an excess. It is also likely that significantly fewer aborted personal tragedies and crises would occur in a genuinely humanistic society. Yet the possibility remains that, even in an optimal environment, few would be "equal to their madness" or capable "of listening to their own songs." Whether drug-induced, naturally occurring, psychotomimetic, or psychedelic, altered states are generally dreaded as much as they are desired, since, in Kurt Goldstein's terms, one can never be sure that his capacities are equal to the demands and discoveries of the experience. Particularly with drugs there is the ever-present danger of seeing too much, too clearly, too soon. William James cautioned that seraph and snake occupy the same transliminal region, to which Rilke might have replied, "... if his devils were to leave him, he was afraid his angels would also take flight."

Man's history has been characterized by a seemingly insoluble ambivalence toward altered states and intense experience. Freud said that in schizophrenia things become conscious that should remain unconscious. As Kierkegaard pointed out, however, "One cannot transcend one's self objectively. The existential realization of a unity of finite and infinite which transcends existence comes only in the moment of passion." Tolstoy had a similar view: "It is possible to
live only as long as life intoxicates us; as soon as we sober again we see that it is all a delusion, and a stupid one!" Despite their emphasis on intensity, both men conceded that "It is perfectly true that only terror to the point of despair develops a man to his utmost—though of course many succumb during the cure" (Kierkegaard). Sartre's Roquentin in La Nausée realized this hazard all too well when he said, "The Nausea has not left me and I don't believe it will leave me so soon; but I no longer have to bear it, it is no longer an illness or a passing fit; it is I." Similarly, Hermann Hesse's Steppenwolf laments, "...a man cannot live intensely except at the cost of the self," and although he "...made sundry holes in the web of time and rents in reality's disguise, it held him a prisoner still."

Perhaps the main conclusion to be drawn from this critique is that we have been prematurely and overly judgmental toward modes of experience differing markedly from our own. We would do well to adopt the attitude expressed by the physicist-philosopher-psychologist Ernst Mach before science and humanism became hopelessly split:

The expression "sense illusion" proves that we are not yet fully conscious, or at least have not deemed it necessary to incorporate the fact into our ordinary language, that the senses represent things neither wrongly nor correctly. All that can be truly said of the sense organs is that under different circumstances they produce different sensations and perceptions (1914, p. 10). (italics in original)