

PSYCHEDELIC REVIEW

NUMBER 6 / 1965

NOTES ON CONTRIBUTORS

RENÉ DAUMAL died at 36, in 1944, a poet, philosopher, Orientalist. His *Mount Analogue* (A Novel of Symbolically Authentic Non-Euclidean Adventures in Mountain Climbing) [Vincent Stuart, London; Pantheon Books, New York] carries an introduction by the translator, Roger Shattuck... DAVID DRAKE is assistant professor of mathematics at the University of British Columbia, Vancouver... GERALD HEARD has also appeared in our first and third issues. His recent book, *The Five Ages of Man*, will be reviewed in our next issue. In the Winter, 1965, number of *The Kenyon Review*, he contributes "The Poignant Prophet," reminiscences of Aldous Huxley... WILLIAM JAMES was perhaps the first American psychologist and scholar of mysticism... GEORGE LITWIN is an instructor at the Harvard Business School... EDWARD W. MAUPIN, Ph.D., does research at the Neuropsychiatric Institute, University of California Medical Center (Los Angeles)... RALPH METZNER, Ph.D., co-editor of the *Review* and co-author of *The Psychedelic Experience*, has recently been traveling in India... TERRY WINTER OWENS and SUZANNE D. SMITH are two free-lance writers who are students of the Gurdjieff ideas under Dr. Willem A. Nyland... GUNTHER M. WEIL, Ph.D., is co-editor of the *Review* and assistant professor of psychology at Brandeis University, Waltham, Mass....

REVIEWERS

MICHAEL HOLLINGSHEAD is an associate of the Castalia Foundation, Millbrook, New York... PAUL A. LEE, Ph.D., is assistant professor in the Department of Humanities at M.I.T.... CARL SALZMAN, M.D., is a psychiatric resident at the Massachusetts Mental Health Center in Boston and a Teaching Fellow at Harvard Medical School... RICHARD EVANS SCHULTES, Ph.D., is lecturer in botany and Curator of the Botanical Museum of Harvard University....

CONTENTS

EDITORIAL	2
TRANSCENDENTAL EXPERIENCE IN RELATION TO RELIGION AND PSYCHOSIS	R. D. Laing 7
HALLUCINOGENIC DRUGS — A Perspective with Special Reference to Peyote and Cannabis	William H. McGlothlin 16
AYAHUASCA DRINKERS AMONG THE CHAMA INDIANS OF NORTHEAST PERU	Heinz Kusel 58
DARU AND BHANG: Cultural Factors in the Choice of Intoxicant	G. M. Carstairs 67
EXPERIMENT FIVE	Henri Michaux 84
SECOND EPISTLE TO THE ROMANS	Wilson Van Dusen 98
REVIEW ESSAY: Meetings with Remarkable Men	Terry Winter Owens 104
FOUR POEMS	Ben Goldstein 113
BOOK REVIEWS	117
BOOKS RECEIVED	125
TO THE EDITORS	126
NOTES ON CONTRIBUTORS	128

Editorial

THE INTRODUCTION of psychedelic foods and drugs into our culture is following a sequence of stages the shape of which is familiar to us from the history of similar movements, particularly, hypnotism and psychoanalysis. Both of these provided a methodological breakthrough in the understanding of human nature and attendant threats to our self-image (we learn that we are less masters of ourselves than we like to imagine). In both cases an initial period of bitter and public debate, centered primarily around the issue of safety vs. danger, was followed by a period in which an attempt was made to provide a suitable *model* and *ethic* for the use of the new technique. In these cases the model that was finally adopted was medical: both psychoanalysis and hypnotism have become medical treatment specialties, in spite of the consistent opposition of their innovators and some of their most eminent practitioners. William James, for example, opposed the simple relegation of hypnotism and other "mental" techniques to a medical framework, and Freud himself to the end of his life argued convincingly that psychoanalysis should be the province of specially trained laymen.

We do not want to see psychoanalysis swallowed up by medicine, and then to find its last resting place in textbooks on psychiatry — in the chapter headed "Therapy," next to procedures such as hypnotic suggestion, autosuggestion, and persuasion . . . it may become indispensable to all the branches of knowledge having to do with the origins and history of human culture and its great institutions; such as art, religion, and the social order. It has already contributed to the solution of problems in these fields, but the contribution made is small in comparison with what it will be when historians of civilization, psychologists of religion, etymologists, etc., become willing to use the new weapon for research themselves. Therapy of neuroses is only one of the uses of analysis; perhaps the future will show that it is not the most important. At all events, it would be unreasonable to sacrifice all other uses to this one, merely because it touches the field of professional medicine.

[*The Question of Lay Analysis*, N. Y., Norton: 1950, p. 121]

Freud's fears have turned out to be justified for psychoanalysis. Hypnotism also suffers from being put on the shelf of medical treatment specialties.

The psychedelic drugs are now passing through analogous stages. Initially, the debate centered around the issue of safety and danger. Medical and psychiatric warnings based on psychotomimetic experiments were countered by statements from many eminent scholars and artists. The names of Havelock Ellis, Weir Mitchell, William James, Aldous Huxley, Timothy Leary, René Daumal, Gerald Heard, Alan Watts, Robert Graves, Henri Michaux, William Burroughs, are drawn at random from a long list of serious men who have documented the value, importance, and safety of the chemically aided exploration of human consciousness. The first stage of the debate seems to be almost over. There is general agreement among researchers in this field that the drugs *per se* are safe and that the potential and real dangers come from the way they are used.

The psychedelic controversy is now entering a second stage of debate: there is growing agreement among psychiatrists, pharmacologists, and psychologists that *set* (expectation) and *setting* are the crucial variables in determining the nature of the psychedelic experience as well as its potential benefits or dangers.* There is now sufficient evidence to indicate that continued psychiatrically oriented, double-blind, psychotomimetic experiments are ethically questionable. As in the case of hypnotism and psychoanalysis, the scientific and ethical relationship between drug-giver and drug-taker is of the utmost importance.

The need for a model and ethic of psychedelic research is clearly apparent. The dangers of using the psychedelics without an explicit contract and ethical code, in other words allowing the enormous power of liberated neural-psychic energy to be channeled into the usual goals of money, power, sex, and status, can be constated by anyone who observes patterns of drug use in major metropolitan areas. A recent fictional treatment of a psychedelic-oriented society (reviewed in this issue) highlights sociologically the problems we now face and those we can expect unless we can develop appropriate models and ethics. The usual problems of social structure and interpersonal relationships are only complicated and magnified by the use of psychedelics unless an explicit contract is worked out and careful collaborative attention is paid to preparation, expectation, setting, and follow-up.

Psychiatric practitioners, strictly following the medical treat-

*Hoffer, A.: LSD: A Review of its Present Status, *Clin. Pharmacol. Ther.*, 1965, 6, 183-255.

ment model, have in fact now recognized the importance of these extra-drug variables as can be seen from the papers read at the recent Second Josiah Macy Foundation Conference on the Use of LSD in Psychotherapy, as well as from the design of recently established and federally supported projects on LSD treatment of alcoholism and the effects of the LSD experience on attitude change.

The question remains whether the medical model is the only one or even the best one without contesting that it is one possible model with obvious applications. Eventually, the issues of control and responsibility for new advances in scientific techniques such as the psychedelic drugs will have to be determined from a number of points of view. No single group or profession can or should claim total authority over such a potentially useful tool. Moreover, it is not at all clear in what way professional training, psychiatric or other, corresponds with the knowledge and wisdom requisite for the intelligent exploration and application of the psychedelic experience.

The *Psychedelic Review* has published and will continue to publish reports of patterns of consciousness-altering drug use in other cultures (cf. the articles by McGlothlin, Carstairs, and Kusel in this issue), in order to provide comparative data for research in this area. Many cultures, especially the Middle East and India, have a long history of the widespread use of the psychedelic drug, cannabis, with attendant social customs and patterns that may appear strange to our alcohol-dominated culture but which, nevertheless, may have certain desirable or attractive features to an impartial observer. In any case, such cross-cultural comparisons should help us maintain perspective about the patterns of drug use and abuse in this culture.

In addition to the medical therapeutic application, four main models have so far been proposed for the application of psychedelic drugs. The *Psychedelic Review* will continue to serve as a forum for the discussion of all five of these research avenues. The *religious* model is one obvious possibility, documented scientifically in the research on drug-induced mysticism carried out by Dr. Walter Pahnke at Harvard, (reported in the *New York Times*, Saturday, May 15, 1965), and illustrated by the Native American Church's use of peyote as well as by a number of other churches recently founded which include psychedelic worship as an explicit part of their rituals.

The *artistic* model has recently gained more impetus by the opening in New York of the Coda Gallery, devoted to an exhibition of psychedelic art, as well as a series of demonstrations and lectures

called the Psychedelic Theatre under the sponsorship of the Castalia Foundation, (reported in *The Nation*, July 5, 1965). An increasing number of younger poets, painters, musicians, and film makers are avowedly drawing inspiration from psychedelic experiences both in terms of type of imagery used and in terms of new techniques of communicating states of altered consciousness. The *Psychedelic Review* has published poems by such artists and plans in the future to reproduce psychedelic paintings and drawings, although some of the most exciting breakthroughs in this field, involving new light projection techniques will remain irreducible to the pages of a journal.

The *scientific* model is for the present the least explored though in some ways the most exciting. From isolated researchers have come reports of the use of psychedelics to provide experiential insight into some of the more abstruse concepts of the modern energy sciences. There are also suggestions that the psychedelics may provide some new experiential leverage into the now dead-end character of ESP research. Is it possible that the psychedelic experience can help to narrow the gap between a scientific construct based on mathematics or the results of instruments of observation and our experiential understanding? Only a tiny minority even among physicists, for example, are actually able to experience the space-time continuum called for by modern physics, or the double nature, both particle and wave, of light. There is a remarkable convergence between the statements of the modern energy sciences and some of the myths of Hindu and Buddhist philosophers, and certain reports of scientifically sophisticated psychedelic subjects. For example, a symposium on the "Rhythmic Functions of the Living Systems," published in the *Annals of the New York Academy of Sciences*, (vol. 98, Oct. 1962), which can hardly be said to be a scientific fringe group, contains data and theoretical formulations which dwarf in complexity and imaginativeness anything that the voluminous psychedelic science fiction literature has come up with, (cf. John J. Grebe, "Time; its Breadth and Depth in Biological Rhythms").

Finally, there is the application of psychedelics, which is to some the most interesting and most important, as an aid to the individual and social development of a permanently higher level of consciousness. The possibility of neurological liberation from culturally imprinted game and role structures, with an attendant conscious participation in human evolution, is raised here. This last strand has links both to ancient traditions that might be called esoteric and to modern philosophers such as deChardin, Leary, Metzner, and Alpert's adaptation of the Tibetan Book of the Dead,

The Psychedelic Experience, is one example of research in this area. Furthermore, interest in systems of developing consciousness and harmonious functioning is reflected in the increasing preoccupation on the part of many serious people with the theories and methods of G.I. Gurdjieff (presented in the previous and current issues of *Psychedelic Review*), who is one of the most powerful and remarkable philosophic and psychological personalities to have appeared in the western world and whose ideas and teachings promise to exert an increasing influence in the future. Gurdjieff's teachings represent perhaps the most effective way we now know of applying the insights of the psychedelic experience to everyday life, and of training the human organism to be able to maintain a higher level of consciousness more permanently than the temporary drug-induced state.

Psychedelic Review will continue to present theories, data, and discussions on all of these various models and applications of psychedelic research in order to forestall as long as possible the premature crystallization of psychedelic philosophy and methods into any one, necessarily limited, framework. Our relative ignorance of the scope of consciousness causes us to leave the question open and ourselves flexible.

R.M.
G.W.

TRANSCENDENTAL EXPERIENCE IN RELATION TO RELIGION AND PSYCHOSIS

R. D. LAING*

WE MUST REMEMBER that we are living in an age in which the ground is shifting and the foundations are shaking. I cannot answer for other times and places. Perhaps it has always been so. We know it is true today.

In these circumstances, we have all reason to be insecure. When the ultimate basis of our world is in question, we run to different holes in the ground; we scurry into roles, statuses, identities, interpersonal relations. We attempt to live in castles that can only be in the air, because there is no firm ground in the social cosmos on which to build. Priest and physician are both witness to this state of affairs. Each sometimes sees the same fragment of the whole situation differently; often our concern is with different presentations of the original catastrophe.

In this paper I wish to relate the transcendental experiences that *sometimes* break through in psychosis, to those experiences of the divine that are the Living Fount of all religion.

Elsewhere I have outlined the way in which some psychiatrists are beginning to dissolve their clinical-medical categories of understanding madness. I believe that if we can begin to understand sanity and madness in existential social terms, we, as priests and physicians, will be enabled to see more clearly the extent to which we confront common problems and share common dilemmas.

The main clinical terms for madness, where no organic lesion

*Fellow, Foundations Fund for Research in Psychiatry. Principal Investigator, Schizophrenia and Family Research Unit, Tavistock Institute of Human Relations. Director, Langham Clinic for Psychotherapy, London. This paper was first presented to the recent International Congress of Social Psychiatry.

has so far been found, are schizophrenia, manic-depressive psychosis and involuntional depression. From a social point of view, they characterize different forms of behavior, regarded in our society as deviant. People behave in such ways because their experience of themselves is different. It is on the existential meaning of such unusual experience that I wish to focus.

Experience is mad when it steps beyond the horizons of our common, that is, our communal sense.

What regions of experience does this lead to? It entails a loss of the usual foundations of the 'sense' of the world that we share with one another. Old purposes no longer seem viable. Old meanings are senseless: the distinctions between imagination, dream, external perceptions often seem no longer to apply in the old way. External events may seem magically conjured up. Dreams may seem direct communications from others: imagination may seem to be objective reality.

But most radically of all, the very ontological foundations are shaken. The being of phenomena shifts, and the phenomenon of being may no longer present itself to us as before. The person is plunged into a void of non-being in which he founders. There are no supports, nothing to cling to, except perhaps some fragments from the wreck, a few memories, names, sounds, one or two objects, that retain a link with a world long lost. This void may not be empty. It may be peopled by visions and voices, ghosts, strange shapes and apparitions. No one who has not experienced how insubstantial the pageant of external reality can be, how it may fade, can fully realize the sublime and grotesque presences that can replace it, or exist alongside it.

When a person goes mad, a profound transposition of his position in relation to all domains of being occurs. His center of experience moves from ego to Self. Mundane time becomes merely anecdotal, only the Eternal matters. The madman is, however, confused. He muddles ego with self, inner with outer, natural and supernatural. Nevertheless, he often can be to us, even through his profound wretchedness and disintegration, the hierophant of the sacred. An exile from the scene of being as we know it, he is an alien, a stranger, signalling to us from the void in which he is foundering. This void may be peopled by presences that we do not even dream of. They used to be called demons and spirits, that were known and named. He has lost his sense of self, his feelings, his place in the world as we know it. He tells us he is dead. But we are distracted from our cozy security by this mad ghost that haunts us with his visions and voices that seem so senseless and of which we feel impelled to rid him, cleanse him, cure him.

Madness need not be all breakdown. It is also breakthrough. It is potentially liberation and renewal, as well as enslavement and existential death.

There are now a growing number of accounts by people who have been through the experience of madness.¹ I want to quote at some length from one of the earlier contemporary accounts, as recorded by Karl Jaspers in his *General Psychopathology*.²

I believe I caused the illness myself. In my attempt to penetrate the other world I met its natural guardians, the embodiment of my own weaknesses and faults. I first thought these demons were lowly inhabitants of the other world who could play me like a ball because I went into these regions unprepared and lost my way. Later I thought they were split-off parts of my own mind (passions) which existed near me in free space and thrived on my feelings. I believed everyone else had these too but did not perceive them, thanks to the protective and successful deceit of the feeling of personal existence. I thought the latter was an artifact of memory, thought-complexes, etc., a doll that was nice enough to look at from outside but nothing real inside it.

In my case the personal self had grown porous because of my dimmed consciousness. Through it I wanted to bring myself closer to the higher sources of life. I should have prepared myself for this over a long period by invoking in me a higher, impersonal self, since "nectar" is not for mortal lips. It acted destructively on the animal-human self, split it up into its parts. These gradually disintegrated, the doll was really broken and the body damaged. I had forced untimely access to the "source of life," the curse of the "gods" descended on me. I recognized too late that murky elements had taken a hand. I got to know them after they had already too much power. There was no way back. I now had the world of spirits I had wanted to see. The demons came up from the abyss, as guardian Cerberus, denying admission to the unauthorized. I decided to take up the life-and-death struggle. This meant for me in the end a decision to die, since I had to put aside everything that maintained the enemy, but this was also everything that maintained life. I wanted to enter death without going mad and stood before the Sphinx: either thou into the abyss or I!

Then came illumination. I fasted and so penetrated into the true nature of my seducers. They were pimps and deceivers of my dear personal self which seemed as much a thing of naught as they.

¹See, for example, the anthology, *The Inner World of Mental Illness: A Series of First-Person Accounts of What It Was Like*. Ed. Bert Kaplan. N. Y.: Harper and Row, 1964.

²Manchester University Press, 1962, pp. 417-18. (Also from Univ. of Chicago and Univ. of Toronto Presses.)

A larger and more comprehensive self emerged and I could abandon the previous personality with its entire entourage. I saw this earlier personality could never enter transcendental realms. I felt as a result a terrible pain, like an annihilating blow, but I was rescued, the demons shrivelled, vanished and perished. A new life began for me and from now on I felt different from other people. A self that consisted of conventional lies, shams, self-deceptions, memory-images, a self just like that of other people, grew in me again but behind and above it stood a greater and more comprehensive self which impressed me with something of what is eternal, unchanging, immortal and inviolable and which ever since that time has been my protector and refuge. I believe it would be good for many if they were acquainted with such a higher self and that there are people who have attained this goal in fact by kinder means.

Jaspers comments:

"Such self-interpretations are obviously made under the influence of delusion-like tendencies and deep psychic forces. They originate from profound experiences and the wealth of such schizophrenic experience calls on the observer as well as on the reflective patient not to take all this merely as a chaotic jumble of contents. Mind and spirit are present in the morbid psychic life as well as in the healthy. But interpretations of this sort must be divested of any causal importance. All they can do is to throw light on content and bring it into some sort of context."

I would rather say that this patient has described with a lucidity I could not improve upon, a Quest, with its pitfalls and dangers, which he eventually appears to have transcended. Even Jaspers still speaks of this experience as morbid, and discounts the patient's own construction. Both the experience and construction seem to me valid in their own terms.

I should make it clear that I am speaking of certain *transcendental experiences* that seem to me to be the original well-spring of all religions. Some psychotic people have transcendental experiences. Often (to the best of their recollection) they have never had such experiences before, and frequently they will never have them again. I am not saying, however, that psychotic experience necessarily contains this element more manifestly than sane experience.

The person who is transported into such domains is likely to act curiously. In other places, I have described in some detail the circumstances that seem to occasion this transportation, at least in certain instances, and the gross mystification that the language and thinking of the medical clinic perpetrates when it is brought to bear on the phenomena of madness, both as a social fact and as an existential experience.

The schizophrenic may indeed be mad. He is mad. He is not ill.

I have been told by people who have been through the mad experience how what was then revealed to them was veritable manna from Heaven. The person's whole life may be changed, but it is difficult not to doubt the validity of such vision. Also, not everyone comes back to us again.

Are these experiences simply the effulgence of a pathological process, or of a particular alienation? I do not think they are.

When all has been said against the different schools of psychoanalysis and depth psychology, one of their great merits is that they recognize explicitly the crucial relevance of each person's experience to his or her outward behavior, especially the so-called "unconscious."

There is a view, still current, that there is some correlation between being sane and being unconscious, or at least not too conscious of the "unconscious," and that some forms of psychosis are the behavioral disruption caused by being overwhelmed by the "unconscious."

What both Freud and Jung called "the unconscious" is simply what we, in our historically conditioned estrangement, are unconscious of. It is not necessarily or essentially unconscious.

I am not merely spinning senseless paradoxes when I say that we, the sane ones, are out of our minds. The mind is what the ego is unconscious of. *We* are unconscious of our minds. Our minds are not unconscious. Our minds are conscious of us. Ask yourself who and what it is that dreams our dreams. Our unconscious minds? The Dreamer who dreams our dreams knows far more of us than we know of it. It is only from a remarkable position of alienation that the source of life, the Fountain of Life, is experienced as the It. The mind of which we are unaware, is aware of us. It is we who are out of our minds. We need not be unaware of the inner world.

We do not realize its existence most of the time.

But many people enter it—unfortunately without guides, confusing outer with inner realities, and inner with outer—and generally lose their capacity to function competently in ordinary relations.

This need not be so. The process of entering into *the other* world from this world, and returning to *this* world from the other world, is as "natural" as death and childbirth or being born. But in our present world, that is both so terrified and so unconscious of the other world, it is not surprising that, when "reality," the fabric of this world, bursts, and a person enters the other world, he is completely lost and terrified, and meets only incomprehension in others.

In certain cases, a man blind from birth may have an operation performed which gives him his sight. The result: frequently misery, confusion, disorientation. The light that illumines the madman is an unearthly light, but I do not believe it is a projection, an emanation from his mundane ego. He is irradiated by a light that is more than he. It may burn him out.

This "other" world is not essentially a battlefield wherein psychological forces, derived or diverted, displaced or sublimated from their original object-cathexes, are engaged in an illusionary fight — although such forces may obscure these realities, just as they may obscure so-called external realities. When Ivan, in the *Brothers Karamazov*, says, "If God does not exist, everything is permissible," he is *not* saying: "If my superego, in projected form, can be abolished, I can do anything with a good conscience." He *is* saying: "If there is *only* my conscience, then there is no ultimate validity for my will."

The proper task of the physician (psychotherapist, analyst) should be, in select instances, to educt the person from this world and induct him to the other. To guide him in it: and to lead him back again.

One enters the other world by breaking a shell: or through a door: through a partition: the curtains part or rise: a veil is lifted. It is not the same as a dream. It is "real" in a different way from dream, imagination, perception or fantasy. Seven veils: seven seals, seven heavens.

The "ego" is the instrument for living in *this* world. If "the ego" is broken up, or destroyed (by the insurmountable contradictions of certain life situations, by toxins, chemical changes, etc.), then the person may be exposed to this other world.

The world that one enters, one's capacity to experience it, seems to be partly conditional on the state of one's "ego."

Our time has been distinguished, more than by anything else, by a mastery, a control, of the external world, and by an almost total forgetfulness of the internal world. If one estimates human evolution from the point of view of knowledge of the external world, then we are in many respects progressing.

If our estimate is from the point of view of the internal world, and of oneness of internal and external, then the judgment must be very different.

Phenomenologically the terms "internal" and "external" have little validity. But in this whole realm one is reduced to mere verbal expedients — words are simply the finger pointing to the moon. One of the difficulties of talking in the present day of these matters is that the very existence of inner realities is now called into question.

By "inner" I mean all those realities that have usually no "external," "objective" presence — the realities of imagination, dreams, fantasies, trances, the realities of contemplative and meditative states: realities that modern man, for the most part, has not the slightest direct awareness of.

Nowhere in the Bible, for example, is there any argument about the *existence* of gods, demons, angels. People did not first "believe in" God: they experienced His Presence, as was true of other spiritual agencies. The question was not whether God existed, but whether this particular God was the greatest God of all, or the only god; and what was the relation of the various spiritual agencies to each other. Today, there is a public debate, not as to the trustworthiness of God, the particular place in the spiritual hierarchy of different spirits, etc., but whether God or such spirits *even exist*, or ever have existed.

Sanity today appears to rest very largely on a capacity to adapt to the external world — the interpersonal world, and the realm of human collectivities.

As this external human world is almost completely and totally estranged from the inner, any personal direct awareness of the inner world already entails grave risks.

But since society, without knowing it, is *starving* for the inner, the demands on people to evoke its presence in a "safe" way, in a way that need not be taken seriously, etc., is tremendous — while the ambivalence is equally intense. Small wonder that the list of artists in, say, the last 150 years, who have become shipwrecked on these reefs is so long — Hölderlin, John Clare, Rimbaud, Van Gogh, Nietzsche, Antonin Artaud, Strindberg, Munch, Bartok, Schumann, Büchner, Ezra Pound . . .

Those who survived have had exceptional qualities — a capacity for secrecy, slyness, cunning — a thoroughly realistic appraisal of the risks they run, not only from the spiritual realms that they frequent, but from the hatred of their fellows for any one engaged in this pursuit.

Let us *cure* them. The poet who mistakes a real woman for his Muse and acts accordingly . . . The young man who sets off in a yacht in search of God . . .

The outer divorced from any illumination from the inner is in a state of darkness. We are in an age of darkness. The state of outer darkness is a state of sin — i.e., alienation or estrangement from the Inner Light. Certain actions lead to greater estrangement; certain others help one not to be so far removed. The former are bad; the latter are good.

The ways of losing one's way are legion. Madness is certainly

not the least unambiguous. The counter-madness of Kraepelinian psychiatry is the exact counterpart of "official" psychosis. Literally, and absolutely seriously, it is as *mad*, if by madness we mean any radical estrangement from the subjective or objective truth. Remember Kierkegaard's objective madness.

As we experience the world, so we act. We conduct ourselves in the light of our view of what is the case and what is not the case. That is, each person is a more or less naive ontologist. Each person has views of what is, and what is not.

There is no doubt, it seems to me, that there have been profound changes in the experience of man in the last thousand years. In some ways this is more evident than changes in the patterns of his behavior. There is everything to suggest that man experienced God. Faith was never a matter of believing He existed, but of trusting in the Presence that was experienced and known to exist as a self-validating datum. It seems likely that far more people in our time neither experience the Presence of God, nor the Presence of His absence, but the absence of His Presence.

We require a history of phenomena — not simply more phenomena of history.

As it is, the secular psychotherapist is often in the role of the blind leading the half-blind.

The fountain has not played itself out, the Flame still shines, the River still flows, the Spring still bubbles forth, the Light has not faded. But between *us* and *It*, there is a veil which is more like fifty feet of solid concrete. *Deus absconditus*. Or we have absconded.

Already everything in our time is directed to categorizing and segregating this reality from objective facts. This is precisely the concrete wall. Intellectually, emotionally, interpersonally, organizationally, intuitively, theoretically, we have to blast our way through the solid wall, even if at the risk of chaos, madness and death. For from *this* side of the wall, this is the risk. There are no assurances, no guarantees.

Many people are prepared to have faith in the sense of scientifically indefensible belief in an untested hypothesis. Few have trust enough to test it. Many people make-believe what they experience. Few are made to believe by their experience. Paul of Tarsus was picked up by the scruff of the neck, thrown to the ground and blinded for three days. This direct experience was self-validating.

We live in a secular world. To adapt to this world the child abdicates its ecstasy. (*L'enfant abdique son extase.* — Mallarmé.) Having lost our experience of the Spirit, we are expected to have

faith. But this faith comes to be a belief in a reality which is not evident. There is a prophecy in Amos that there will be a time when there will be a famine in the land, "not a famine for bread, nor a thirst for water, but of *hearing* the words of the Lord." That time has now come to pass. It is the present age.

From the alienated starting point of our pseudo-sanity, everything is equivocal. Our sanity is not "true" sanity. Their madness is not "true" madness. The madness of our patients is an artifact of the destruction wreaked on them by us, and by them on themselves. Let no one suppose that we meet any more "true" madness than that we are truly sane. The madness that we encounter in "patients" is a gross travesty, a mockery, a grotesque caricature of what the natural healing of that estranged integration we call sanity might be. True sanity entails in one way or another the dissolution of the normal ego, that false self competently adjusted to our alienated social reality: the emergence of the "inner" archetypal mediators of divine power, and through this death a rebirth, and the eventual re-establishment of a new kind of ego-functioning, the ego now being the servant of the Divine, no longer its betrayer.

SUBSCRIPTION INVITATION FROM THE PSYCHEDELIC REVIEW

THE PSYCHEDELIC REVIEW
P. O. Box 171, New Hyde Park, N. Y.

Please send me at once the latest number of
THE PSYCHEDELIC REVIEW

Please fill my subscription order as checked below:

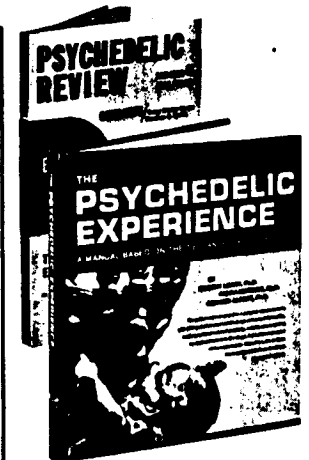
- one year (4 issues) at \$7.50
 two years (8 issues) at \$14.00
 Please also send me a copy of the new book,
 THE PSYCHEDELIC EXPERIENCE \$5.00 per copy.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Cash Check M.O.



HALLUCINOGENIC DRUGS: A PERSPECTIVE WITH SPECIAL REFERENCE TO PEYOTE AND CANNABIS*

WILLIAM H. McGLOTHLIN

I. INTRODUCTION

RECENTLY THERE HAS BEEN CONTROVERSY concerning the use of LSD (d-lysergic acid diethylamide) and other hallucinogenic drugs. At one extreme, Leary and Alpert have advocated that the hallucinogens be made generally available to the public for the purpose of "consciousness expansion" (67) and their viewpoint and activities have been widely examined and criticized in the popular press. The observation that the hallucinogens may have beneficial effects is not limited to extremists, however; Cole and Katz point out that much of the literature embodies "an implicit or explicit attitude that the self-knowledge or the leverage for self-change allegedly effected by these drugs may be of value or benefit to individuals not ordinarily considering themselves to be psychiatrically ill." (37) On the other hand, a number of editorials and articles (including that by Cole and Katz) have warned that uncontrolled use of the drugs could produce psychotic reactions, suicides and undesirable personality changes. (36, 47, 56, 57) Grinker writes, "latent psychotics are disintegrating under the influence of even single doses; long-continued LSD experiences are subtly creating a psychopathology." (57) Farnsworth warns that we have little information on the long-range effects when taken over a protracted period of time and that they may prepare individuals to "move up" to other "more powerful drugs." (47) In general, the critics have regarded LSD as a new and potentially dangerous drug which may produce long-term deleterious mental effects that are unknown at present.

*A modified version of this paper was presented at "The Second Conference on the Use of LSD in Psychotherapy" in Amityville, Long Island, New York, May 8-10, 1965.

The purpose of the present paper is to provide a perspective on the long-term effects and social implications of the protracted use of hallucinogenic drugs through a review of the extensive literature on peyote and cannabis sativa (marihuana). Since hallucinogens are known to have been in use for over four thousand years, there is no need to restrict our data to the very limited information available on the uncontrolled use of the more recent additions to the hallucinogen family. The psychic effects of peyote are especially similar to those of LSD. The limitation of peyote to the American Indian culture and religious setting restricts to some extent the generalizing of peyote findings to the current situation; however, some interest exists in the use of LSD for religious purposes (106) and one notable criticism in the present controversy is directed at the formation of LSD cults. The effects of cannabis are less similar to LSD, but it has a history of use under much more varied conditions and motivations than does peyote. There are many other hallucinogens that have been used to alter mental states,* but only peyote and cannabis are sufficiently well-documented for the purposes of this paper.

Because peyote and cannabis have been freely available to certain groups for many years, studies on their use can help predict the extent and conditions under which LSD and similar drugs would be utilized if accessible. Of particular interest is what proportion of the population would be attracted to their use and for what purpose. Also of interest is the likely frequency of use and tendencies to cause addiction or emotional dependence. The question of the relation of occasional or continual use of hallucinogens to psychosis can be examined, as well as the possibility that such use predisposes users to other more addictive drugs. Questions can be raised concerning personality changes resulting from their long-term use, as well as economic, family and social effects.

II. PEYOTE

HISTORY AND DESCRIPTION

Peyote (*Lophophora williamsii*) is a small, spineless cactus that grows in Northeast Mexico and the Rio Grande Valley. It contains nine alkaloids; of these mescaline is the principal one that gives rise to the hallucinogenic effects. Peyote is carrot shaped with only the top-most part extending above ground. This portion is cut off

*Shultes states that there are more than forty naturally occurring hallucinogens in North and South America.⁽⁹⁷⁾

and, though it may be eaten fresh, it is usually dried to form the peyote or "mescal" button.

The ritualistic use of peyote among the Mexican Indians was widespread at the time of the Spanish invasion and has been documented as early as 1560. (64) Most evidence places the introduction in the United States (Texas) at around 1870. (104) Whereas peyotism was a seasonal affair in Mexico, it was used throughout the year in the Plains. Peyote meetings were held for a wide variety of reasons, most frequently for doctoring the sick. A few influential leaders were active in proselytizing neighboring tribes, and peyotism spread rapidly among the Plains Indians. The ritual procedures were standardized into a religious cult in contrast to the tribal nature they had in Mexico. As the cult spread northward, a number of Christian elements were added, and the religion was incorporated under the name "First-born Church of Christ" in 1914 — later changed to the present title, "Native American Church."

In 1919 the Indian Bureau conducted a formal census of peyotists and found that 13,345 out of a total of some 316,000 were peyote users. (87) The Native American Church now claims to have 200,000 members and has penetrated almost all tribes in the United States and Canada. (41) La Barre, writing in 1947, states,

Without a doubt the most widely prevalent present-day religion among the Indians of the United States and Mexico is the Peyote Cult . . . the use of peyote has spread from group to group until today it has assumed the proportions of a great inter-tribal religion. (63).

THE RITUAL

To understand the motivation for the repeated use of peyote by the Indians, and to determine what bearing it may have on the use of modern-day hallucinogenic drugs, it is necessary to describe something of the setting in which the ritualistic use occurs.* There are occasional protracted peyote meetings (lasting perhaps a week or more) during holidays, such as Thanksgiving or Christmas; however, by far the most common is the weekend meeting held on Saturday night and extending into Sunday. Meetings are generally sponsored by a single family, although the cost is sometimes defrayed by a collection. The purpose of the meeting may be to doctor a sick member of the host family, to celebrate a

*There are a number of excellent detailed descriptions of the peyote ritual in the ethnological literature. Most of the description given here is based on La Barre's account. (64)

birth or death anniversary, to ask for rain, or simply to gather for social reasons. All Indians are welcome regardless of tribe and, with today's improved transportation, participants often travel for distances of a hundred miles or more. (112)

Preparations prior to the meeting include bathing and rubbing with scented plants and some tribes provide a sweat-bath lodge. Many tribes also observe the taboo of not eating salt on the day of the meeting. (64) The meetings are held in large tepees or in peyote churches, or sometimes in the home of a member. The ceremony begins in the evening with the members sitting in a circle around an altar and fire. Women sit on the outside of the circle. The altar or "moon" consists of a crescent-shaped design made on the ground or in clay, and is based on visions received by the early leaders of the cult. A large peyote button is placed on the altar and is called the "chief" or "father peyote."

The principal official is the "road-chief"* who directs the ritual. Others are the drummer, "fire-chief" and the doorman. The paraphernalia include a staff, drum, gourd rattle, special feathers, tobacco, incense, sage, and a number of other articles. As the cult has become more Christianized, the Bible is also placed on the altar along with the "father peyote," and is often read during the meeting.**

The ceremony begins by smoking tobacco and praying, with each member staring at the "father peyote" and the flickering fire. The peyote is passed and each participant takes four buttons. The leader then begins to sing to the accompaniment of the drum and rattle. Later he exchanges his staff and rattle for the drum and the drummer sings four songs. Similarly, the staff and rattle are passed around the circle, with each member singing four songs and the person to the left drumming in each case. Women do not participate in the singing. Peyote buttons continue to be eaten, but the amount and number taken at a time is up to the individual.

There is praying at intervals and some members rise and make passionate confessions and repentances accompanied by crying and strong emotions. At midnight there is an elaborate water ritual too complex to describe here. If doctoring is to be performed, it normally takes place at this time. The singing continues until dawn when the "peyote woman" is summoned to bring the morning

*So-called because he leads members to the peyote road or way.

**The Indians have found a number of Bible references to the eating of herbs, which they interpret as peyote — a practice that is particularly irksome to the missionaries attempting to suppress peyotism. (104) The most frequently quoted is Romans 14:2 and 3: "For one believeth that he may eat all things: another, who is weak, eateth herbs. Let not him that eateth despise him that eateth not; and let not him which eateth not, judge him that eateth."

water and another ceremony is performed, followed by the morning songs, prayers and the quitting song. A ceremonial breakfast of water, parched corn, fruit, and dried sweetened meat is served. The meeting is then formally over and participants spend the morning socializing and discussing their experiences and visions. The sponsoring family serves a large dinner at noon, after which the guests depart.

MOTIVATION

A primary interest of this paper is the examination of the motives that cause persons to seek the hallucinogenic experiences; what are the attractions and satisfactions which result in submission to repeated exposures over a long period of time? In the case of peyotism, there are two sources of information: (1) direct observation of the ceremonies and interviews with the Indians; and (2) the theoretical explanations offered by the ethnologists. To understand the former we must examine them in the context of the ritual setting. This is pointed out in La Barre's quote of an Oto, who told him in "all seriousness" that "peyote doesn't work outside the meetings, because I have tried it." (64)

The Indians stress the attitude with which peyote is approached — Slotkin writes, "One must be conscious of his personal inadequacy, humble, sincere in wanting to obtain the benefits of peyote, and concentrate on it." (104) Petruccio writes in a similar vein:

In the approach to the Spirit-Forces, including Peyote, humility and a pitiful attitude are characteristic. In the speeches of the road-chief in the meetings, in the prayers, and in the tales of conversion and other lore, the Delaware appears meek and humble, conscious of his insufficiency. He is "a poor boy" who needs help and guidance from Peyote, the compassionate, the pitiful. It is important that aid is not sought for material success in worldly enterprises, but purely in the realm of the spiritual, and in the medicinal. This doctrine is common to all Peyotists, irrespective of Moon affiliation. (91)

Spindler writes about the goal of acquiring power invested in the Great Spirit:

This power cannot be obtained by merely consuming peyote. It comes to one only when the person approaches it in a proper spirit of humility and after long preoccupation and concentration. . . . The humility of the Menomini Peyotists is accompanied with declarations of worthlessness. (109)

Some consider the peyote-induced vision to be an important aspect, but others regard the visions as a distracting element to be suppressed:

Peyote should not be eaten for visions. The visions are the effect of peyote on the body; but if you put your mind on God no visions will come to disturb you. (91)

Slotkin also relegates visions to a minor role, stating that persons seeking a mystic state through peyote ignore visions. (105)

The peyotist not only seeks contact with the higher spirits, but also strives to resolve personal conflicts:

Each individual turned in upon himself with the aid of the narcotic and the fire into which he stares — is not only concentrating upon the nature of the power to come to him or upon the spirits of heaven, but also upon the personal self and its conflicts. (109)

Louise Spindler stresses the power of the concerted group effort in this regard:

During the recital of testimonials at meetings, the group reacts in unison, but one member, often crying uncontrollably, is the center of attention as he exposes his personal problems which he hopes peyote will help him solve. (110)

Slotkin emphasizes that, to get the most from the meeting, the person should not adopt a passive attitude of receiving from peyote, but must prepare through intensive prior concentration on his particular problem. (103)

The peak of the experience is the surrender of the individual, or in more modern terms the giving up of the ego — "ego death." Petruccio writes, "Unless one decides to surrender himself completely to Peyote no benefit will be derived."* (91) There is also the recognition that psychic surrender may involve intense suffering. An informant reported to Simmons during the ceremony:

If there is suffering, this is the time. That's the reason I took a good rest; so I could stand it. Many a time I have fallen over at this time. It's getting on to what they call the dark hour, the hour of the Crucifixion. Everyone here is suffering now (quoted in La Barre). (64)

*It should be noted that this attitude of complete helplessness is an essential prerequisite of almost all natural conversion experiences. There is invariably a "feeling of submission — of giving up or giving to." (32)

A related aspect of the ceremony is the role of public confession. La Barre stresses the importance of this aspect:

Many members rise and accuse themselves publicly of misdemeanors or offenses, asking pardon of persons who might have been injured by them... that confession to the father peyote and his authority, and repentance before the group is of profound significance cannot be doubted. (64)

Skinner describes meetings where the leader asks the members to rise and confess their sins; (102) and an informant of Stewart's insists that "no one can face it [Peyote] and lie." (112) La Barre writes:

The significance of a group ritual, as in the peyote cult (aided here by the awesome pharmacodynamic "authority" of a powerful narcotic) may serve to explain the age-long survival of this kind of primitive psychotherapy (public confession), and its re-emergence and spread in the modern religion of the Plains, the peyote cult. (63)

La Barre goes on to interpret the functions of the father-peyote fetish:

The psychological function of the fetish is to give physical form and locus to the projected "spiritual" entities, through which men disclaim responsibility for their own emotions, wishes and acts. The fetish may then serve as an externalized superego or conscience "projected" outside the individual. (63)

Whites who witness the peyote ceremonies typically come away very impressed with the sincerity of the participants. For instance, La Barre writes:

There can be no shadow of a doubt concerning the deep and humble sincerity of the worship and belief—and sincerity perhaps, even in the absence of other ingredients, is the chief component of a living religion. And if the chief function of a religion is the liquidation of the anxieties and the solutions of the fears and troubles of its adherents, then surely the peyote religion eminently qualifies as such.* (64)

*It should be mentioned that, while the above description of the peyote ritual is typical, there are some noteworthy exceptions. In particular, Opler describes the ritual in the Mescalero tribe as a struggle between rival shamans to gain power through the use of witchcraft, and there is a great deal of suspicion and distrust among participants. (88)

Turning now to motivation for taking peyote, as stated by the Indians themselves, there are several hundred interviews with peyotists available in the ethnological literature and in testimony at the many legal hearings held in the last half century. The most frequent claim of benefit is that peyote has cured a physical illness. In addition, there are often claims of being freed from alcoholism and led to adopt the ethics of the "Peyote Road" — brotherly love, care of family and self-reliance — which are virtually identical with those of Christianity. The most strikingly consistent report made by the Indians is that (1) peyote *teaches* and (2) this teaching takes place by *direct* revelation from peyote to the devotee. Over and over the answer given to inquiries about the nature of the peyote experience is that the only way to learn is directly from peyote. Slotkin writes that one of the cardinal maxims of the Native American Church is "the only way to find out about Peyote is to take it, and learn from Peyote yourself;" (103) and, "It may be interesting to know what others have to say; but all that really matters is what one has directly experienced — what has been revealed to him personally by Peyote." (104) John Wilson, one of the principal founders of the peyote religion, claimed that:

The greatest teacher for the Indians is Peyote communion which is possible to everyone provided he manifests the proper honesty of purpose to know peyote and learn its teachings. By eating the plant and concentrating on Peyote and the ills that afflict mankind, by a proper show of humility and the desire to learn to "walk on the road," this end can be attained. Thus, each individual is to learn the doctrines of Peyote through personal experience and revelation. (91)

The concept of the *direct* teaching of peyote is probably expressed most succinctly by the often-quoted statement of Quannah Parker, one of the early peyote leaders: "The white man goes into his church house and talks about Jesus; the Indian goes into his tepee and talks to Jesus." (104)

Other statements by Indians refer to the continued capability of peyote to teach; "Peyote is a lifetime education. You will learn new things every time you attend a meeting." (41) One of Slotkin's informants, a peyotist for 30 years, claimed to be "just a beginner" discovering what peyote had to teach. (103) The observation that peyote and its synthetic equivalent, mescaline, teach has not been limited to the Indians, as demonstrated in familiar statements by Ellis, Huxley, Osmond, and others. (46, 60, 90)

I have dealt at some length with the issue of "learning" and the psychotherapeutic effect from the use of peyote because it is

an important dimension in the consideration of all hallucinogenic drugs. It is this unique claim that sets these substances apart from other drugs that alter central nervous system functioning and makes their evaluation such a complex question — one seldom reports learning from alcoholic intoxication — save perhaps to observe more moderation.

ETHNOLOGICAL EXPLANATION OF PEYOTISM

Ethnologists have offered a variety of explanations for the diffusion of peyotism among the American Indians. Probably the best known is Ruth Shonle's hypothesis that the Plains Indians had long valued visions produced by fasting and self-torture,* and accepted peyote as a more direct means to this goal. (100) At the time of her article (1925), peyotism was largely confined to the Plains. She postulated that an "underlying belief in the supernatural origin of visions is important among factors contributing to the diffusion of peyote and in a general way defines the area of its probable spread."

Barber (1941) and La Barre (1960) feel that Shonle's prediction has been at least partially confirmed by the subsequent diffusion of peyotism. (10, 65) The latter points out that where peyotism has spread beyond the Plains it has encountered more opposition; and, though the peyote leaders came from the old elite in the Plains, they did not do so in other areas.

Arth suggests that peyote may also appeal as a method of expressing indirect aggression toward the whites, because of the latter's continued opposition to the movement. (9) In addition, he and others have pointed out the Indian nature of the peyote cult represents a return to the old way of life and a reaffirmation of in-group feelings. As evidence, Arth cites the preference for summer meetings in tepees to winter meetings in frame houses, and that the fire, drum, songs, sitting on the floor, and smoking all demonstrate strong ties with the past.

Finally, a number of writers contend that peyotism proved attractive because it was introduced at a time when the old culture was breaking up, and the Indians found themselves in an anxiety-producing transitional state between the Indian and white cultures. Thus, the peyote cult offered unity and meaning at a time when it was greatly needed. Both Arth and Spindler support this argument with evidence that the cult has been much more enthusiastically accepted by men than by women. (9, 109) They argue, along

*See Ruth Benedict.⁽¹⁴⁾

with Margaret Mead, (81) that the breakdown of culture is almost always of more vital concern to the men than to the women, who continue to bear children, cook, etc. In addition, Spindler has made detailed studies of Indian acculturation processes, and concludes that peyotism is most attractive to the person in a transitional state. (109)

Of those who view the peyote cult as an attempt to adjust to a disintegrating culture, Petruccio probably makes the most positive assessment:

It teaches acceptance of the new world, and makes possible an attitude of resignation in the face of the probable disappearance of the Indian groups as distinct people, culturally and racially, by insisting on the necessity of emancipation from mundane aspirations. The greater goal that the Indian should attempt to attain is a loftier spiritual realm which is beyond the reach of the White to destroy. (91)

Bromberg, a physician, specifically attacks Petruccio's interpretation:

Peyote, as with all drugs, is taken because it produces a change in the feelings and emotions of the user. Thus sedatives allay anxieties and restlessness; alcohol reduces the sharpness of frustrations; morphine and heroin ease the pain of isolation; marihuana, by producing other worldly sensations, neutralizes the frustrations of this life. So peyote acts not so much to support a cultural drive, but as an anodyne to ease the pain of conflict which the clash of cultures engenders. In this sense, Peyotism as spiritual therapy implies a negative attitude towards emotional problems. To seek to gain permanence for a culture by the repression of conflicts through narcotics and mysticism is not a "constructive" way of life! (25)

The positions of Petruccio and Bromberg quite clearly delineate the two poles of the peyote issue. The former feels that the peyote cult represents a positive adjustment, though one more compatible with an Eastern than a Western value system. The latter adopts a pragmatic Western view, and feels that the ceremonial use of peyote is a non-constructive avoidance of the problem.

FREQUENCY OF USE AND THE QUESTION OF ADDICTION

The average consumption of peyote buttons at a meeting is around twelve to twenty per person according to La Barre, with occasional individuals claiming to have eaten as many as eighty

to one hundred. (64) Shultes and Slotkin both report the average number to be about twelve. (117, 103) Stewart puts the average at eight to twelve, and Skinner reports that the Iowas take about two to eight. (112, 102) Women participants consume considerably less, typically from two to four buttons.

The frequency of meetings varies, the upper limit generally being once a week; meetings may be much less frequent due to lack of a host, inclement weather, or unavailability of peyote. La Barre estimates that "one or two meetings a month in each tribe might be an average number when the whole year is considered." (64) Individual attendance at meetings also varies, some persons only attend occasionally.

In rare instances a meeting will last for two or three days, particularly if the purpose is to cure a serious illness. The incidence of peyote intoxications sustained for several days is of interest because it bears on the questions of addiction or excessive use under uncontrolled conditions. Radin reports an incidence of a dramatic conversion resulting from taking peyote on three successive days, (92) and John Wilson, the principal founder of the peyote cult, withdrew to an isolated spot and took peyote frequently over a two-week period at the time of his revelations. (64) Such cases, however, are relatively rare, the normal interval between ritualistic peyote ingestion being at least a week.

Concerning nonritual use of peyote, some tribes strictly forbid its use outside the ceremonial setting; (88) however, others use it as medicine, generally in the form of peyote tea. (103) Louise Spindler reports that in the Menomini tribe women peyotists often keep a can of ground peyote for brewing tea, which they use "in an informal fashion for such things as childbirth, earaches, or for inspiration for beadwork patterns." (110) She also mentions one woman who "takes peyote several times a week and often sinks into a state of complete withdrawal while taking it." La Barre writes that his informants admitted "that there were some individuals who show signs of addiction, in the sense that they consumed the plant often and abundantly, but these are not clear uncomplicated instances of drug addiction." (64) In spite of occasional cases such as these, there is general agreement that peyote should not be included under the vague labels of psychologically addicting or habitforming drugs. (66) In a 1959 summary article on peyote in the *Bulletin on Narcotics* it was concluded, "Most of the authors consulted . . . including scientists, chemists, doctors, and ethnologists long familiar with these substances [peyote and mescaline] state roundly that they do not cause either habituation or addiction." (6) Also, peyote was discussed by the Twenty-First

Session of the League of Nations Advisory Committee on Traffic in Opium and Other Dangerous Drugs and was not included on the list of narcotic drugs. (6) Finally, the 1962 White House Conference on Narcotic and Drug Abuse concludes that:

Careful anthropological and sociological studies indicate that the ritualistic use of peyote does not carry with it significant danger, nor is it abused continuously. . . . In order to qualify this drug as an "addictive" agent one must clearly distort the definition. (121)

As mentioned above, peyote meetings are frequently a month or more apart. Individuals often try the peyote cult for a period and then drop out, and though peyotism has steadily increased, there are tribes where it has flourished and then completely disappeared. (89, 112)

PHYSICAL EFFECTS

Peyote often causes nausea and vomiting, but otherwise the immediate physiological effects are minor compared to the psychological. The major concerns are the long-term physiological effects resulting from repeated use, and especially the incidence of psychoses. Unfortunately, there has never been a medical study of the long-term effects of peyote on humans, in spite of the fact that the question has been raised repeatedly at the many legal hearings. The 1944 Congressional Hearing Committee specifically recommended that such a study be conducted and the Taos Indians offered to provide the subjects. (117) Thus, information is limited to the observations of ethnologists, and the pro and con testimony at the legal hearings.

The issue of the effect of peyote on physical health is somewhat clouded by the Indians' practice of doctoring severe illnesses in meetings. Stewart reports that the anti-peyotists among the Washo and Paiute Indians claimed a number of deaths resulted from peyote, and the government doctor made several post-mortem investigations:

All believers allegedly killed by peyote demonstrably suffered from disease or senility which might at any moment have brought death and which figured as the cause in official reports. It is probable, however, that the rigors of peyote meetings hastened the deaths of a few dangerously ill individuals. (112)

Most observers regard the introduction of alcohol to the Indians to be much more devastating than peyote. (94) This seems likely, since alcoholism involves frequent intakes of large amounts of alcohol, and is known to cause various physical pathologies, whereas peyote is typically taken at much less frequent intervals.

Turning now to the question of psychosis, there are a few reports by ethnologists of acute psychotic incidents. Radin mentions a case of temporary paranoia, and Stewart describes a psychotic incident in a man competing for leadership of the group. (92, 112) La Barre reports that several natives "gave up the use of peyote entirely upon the rising of special or acute anxieties." (64)

Missionaries and anti-peyote Indians have made a number of claims of more permanent insanity resulting from taking peyote. Typically the claims are of a vague and general nature, but some cite specific cases. Stewart mentions two who:

were sent to institutions after attending peyote meetings. . . . Altogether seven were judged by the unconverted as completely crazy because of peyote, and three others temporarily deranged . . . in all cases but one, government records revealed long histories of mental instability. The exception possessed unmistakable delusions of grandeur, believing himself the son of God and ruler of the western Indians. (112)

Bromberg, who studied the relations of marihuana and psychosis (see the following section), also speculated on peyote-induced psychosis. (25) He writes, "It is to be expected that, in view of the universal anxiety reaction under peyote, these states of apprehension may attain the intensity of a psychotic picture." He relates one known case of acute psychosis following peyote intoxication; the patient was hospitalized and improved in two weeks.

ALCOHOLISM AND PEYOTE

Alcohol was introduced to the Indians by the whites and soon became a serious problem, not only in this country but in Central and South America as well. (27) Some of the early leaders in the peyote cult were alcoholics prior to being converted to peyote, and subsequently became strict prohibitionists. (64) They instructed their followers on the evils of alcohol, and abstinence soon became a part of the "Peyote Road." The present-day Native American Church continue to stress abstinence from alcohol. (104)

Apparently the prohibition on alcohol was relatively effective because even the anti-peyotists grudgingly conceded that members

abstained. A typical anti-peyote testimony in Congress reads, "The Indian has also been taught that it is a cure for the liquor habit. And true it is many drunkards have eaten mescal* [peyote] and have stopped drinking liquor, but mescal is merely a more dangerous and potent substitute." (118)

The ethnologists are more positive in their assessment. Malouf notes that "almost all peyote members abide by prohibition of alcohol and the few who do not enjoy little prestige." (74) Skinner writes, "The effect of peyote eating on the Kansa has been to abolish drunkenness among its followers." (102) Finally, a Native American Church statement for a Congressional hearing draws an interesting comparison: "Peyote is a great element in our religious ceremonies and not a habit-forming drug or intoxicant. Intoxicant liquor is made by the white man and no doubt for some special purposes which we do not know. . . . Those of us who use peyote do not drink whiskey." (118) La Barre, however, notes that in Mexico peyote is often mixed with alcoholic drinks, and also mentions several cases where peyote cult members drank alcohol between meetings. (62, 64) Radin writes as follows about the Winnebagos:

So completely did peyote users give up drinking that at first it was supposed that this was a direct effect of the peyote. This is, however, an error. John Rave, leader of the cult, gave up drinking when he became a convert and included this renunciation of all liquor in the cult. . . . When Rave's personal influence decreased, and as membership increased, the number of people who drank liquor and ate peyote at the same time increased. (92)

The Spindlers collected data on drinking behavior from their small sample of peyotists among the Menomini. (109, 110) Forty-five per cent of the peyotists abstained, in comparison to 26 per cent of the non-peyotists. While the peyotists drink somewhat less than the others, it is clear that the prohibition is not completely effective. It would be of interest to obtain similar comparative statistics for other peyote groups.

APHRODISIAC OR ANAPHRODISIAC

The fantasy that sex, sin, and narcotics are inextricably intertwined is firmly entrenched in our culture, and writers for the popular news media continue to link sexual abandon (*Reporter*),

*A term sometimes used for peyote, not to be confused with the alcoholic beverage of the same name.

wife-swapping (*Ladies' Home Journal*), and the like with present-day hallucinogenic drugs. (55, 52)

La Barre calls the sexual accusation leveled at the peyote cult a "flat and unqualified untruth" (117) and further writes:

It is a curious west-European mode of reasoning that leads one to expect in all psychic upsetments such as this the emergence of the sexual anxiety—more particularly in the case of peyote intoxication, which provokes marked fall of heart-beat, physical and mental depression at one stage, uncomfortable "stomach fullness" and acute nausea! (64)

Kluver feels peyote has no sexual effect (61), but a number of other observers indicate it acts as an aphrodisiac. (26, 72, 91, 118) Fernberger, a psychologist, conducted an experiment on the subject. (48) He used nine university professors as subjects and conducted an all-night group "meeting," complete with drums and rattles. Subjects consumed from three to seven buttons. Under these conditions, Fernberger found peyote to be a "strong anti-aphrodisiac."

For every one of the observers, the anti-aphrodisiac effect of the drug was marked and continued, in most cases, for at least 24 hours after the period of intoxication. [In one case it lasted 72 hours.] Efforts at erotic stimulation proved ineffective. In several cases physical automanipulation of the genitals failed to produce the usual physiological effect. The calling up of erotic images—visual and verbal—was equally ineffective.

Although Fernberger's setting will undoubtedly never be rated very high by students of erotica, and probably says more about the naivete of the experimenter than it does about peyote, it is nevertheless science's one contribution to the subject.

As far as I have been able to determine, the only persons who find peyote to be a reliable aphrodisiac are missionaries and magazine writers. The Reverend R. H. Harper successfully follows the rules of logic but is tripped-up by a faulty premise:

We are thoroughly convinced that the use of peyote leads to immorality sexually. Given: A drug which stimulates the sexual passions, and at the same time decreases the will power as to resistance, and the inevitable result is immorality in action. (59)

An example of the way our news media describe peyotism is contained in *Time* as late as 1951:

The Navajos, already wretched in their poverty and disease, were easy prey for peyote peddlers... One "peyote hassle" has been described by a paleface intruder... it was "every man for himself." Men hopped up with peyote, he reported, "are likely to grab the closest female, whatever age, kinfolk or not." There have been many reports of sex crimes, some against children, committed under the influence of peyote. (116)

SOCIAL AND ECONOMIC ASPECTS OF PEYOTISM

There are no consistent socio-economic differences between the peyotists and other Indian groups. Stewart rated 1,000 Washo-Paiute Indians from poor to prosperous and from lazy to energetic. (112) Twenty-five per cent were peyotists (attended two or more meetings) but only nine percent were active. He concluded that the ratings showed no difference between the two groups, and "that peyotism attracted a proportionate number of all the exceptional individuals in the Washo-Paiute community." Peyotism has met heavy opposition among the Taos, but in 1960 Dustin states that 300 of the 900 Taos Indians are peyotists and "command most of the important religious and civic offices of the Pueblo including that of governor." (41) Spindler rated the socio-economic status of a small minority of Menomini peyotists along with four other groups: native-oriented, transitional, acculturated and elite-acculturated. (109) The peyotists rated above the native-oriented group, but below the other three.

There is general agreement that the peyote cult played a prominent role in breaking down tribal barriers. La Barre, Slotkin and others have noted that all Indians are welcome to peyote meetings and a great deal of intertribal visiting takes place, often with a half-dozen or more tribes represented at a single meeting. (64, 103) Within individual tribes, however, peyotism sometimes encountered strong opposition. Stewart describes the Washo-Paiute relations as follows:

Although only a relatively small number ever espoused peyotism, its effects on the group were considerable... The vehemence of divergent opinions causes a distinct rift in Washo-Paiute communities. Old friends and neighbors are separated, families broken up. Whole communities are divided. (112)

As mentioned earlier, the Taos in New Mexico have had an especially long and bitter struggle over peyotism, with the tribal government jailing peyotists on some occasions. (89)

When peyotists are a minority they often form closely united groups that relate only minimally with non-peyotists in the same tribe. (109, 112) How much this is due to the persecution of outsiders as opposed to the in-group comradeship engendered by the peyote religion is not clear. Peyote cult members are generally credited with adopting a rather charitable and non-aggressive attitude toward their opponents; (91, 104) however, Stewart mentions one Indian who, "confident of supernatural protection for the peyotists, suggested that the members and non-members line up and 'shoot it out.'" (112)

LONG-TERM PERSONALITY ASPECTS OF PEYOTISM

There are only two studies in this area. One hypothesized that the more psychologically disturbed Indians would be attracted to the peyote cult as an adaptive device, and would experience more "bad dreams" than the non-peyotists. (40) The results were inconclusive.

A much more thorough study was undertaken by the Spindlers using the Rorschach test. (108, 109, 110) They obtained highly significant differences between the male peyotists and non-peyotist groups, with as many as 13 of 21 indices being differentiated at the .05 level of confidence. The female peyotist showed similar patterns, but the differences were not so marked.

The psychological interpretation of projective test results for cultures other than those on which the norms were developed is a hazardous undertaking. Spindler acknowledges this difficulty, but offers the following interpretations of the peyote group results:

The Peyote personality tends to be one in which there is a high degree of self-projective fantasy, which in a setting of anxiety, introspection, and looseness of control is interpretable as a self-doubting rumination, however much it may represent a relative increase in creative imagination. This type of projection appears at relative cost in the degree of freedom in expression of biologically oriented drives. The personality tends to be subject to unsystematized anxiety and apparently there is a tendency to attempt resolution of it by introspection. There is a relative looseness of control exerted over emotional responses. (109)

Spindler concludes there is some evidence that deviant persons gravitate to the cult, but that the unique Rorschach protocols for male peyotists cannot be explained in this manner. Members apparently undergo personality changes as a result of their participation.*

LEGAL HISTORY OF PEYOTISM

The legal history of peyotism is quite lengthy and can only be summarized here.** The federal opposition to peyotism was spearheaded by the Indian Bureau which made several unsuccessful attempts, beginning in 1908, to have peyote included in the Liquor Suppression Act. This was accomplished in 1923 and repealed in 1935. Slotkin lists a series of nine Congressional bills to prohibit peyote from 1916 to 1937, all of which were defeated. (104) The Department of Agriculture passed a regulation prohibiting the importation of keyote in 1915; the regulation was rescinded in 1937. Similarly, the Post Office banned shipment of peyote through the mails in 1917, and rescinded the ban in 1940. Peyote was included as a habit-forming drug in the Narcotic Farm Act of 1929 to allow treatment of peyote addiction. So far, no "peyote addict" has availed himself of this service. (121) Also, peyote was defined as a narcotic in the Federal Food, Drug and Cosmetic Act for the purpose of labeling. However, peyote has been excluded from all Federal narcotic acts.

According to Slotkin and Stewart, the Indian Bureau acted in a "highly ethnocentric and autocratic" manner during this period (1900-1934), and was very much influenced by the Christian missionaries whose competitive role hardly placed them in a disinterested position. (104, 111) Slotkin also accuses the Bureau of numerous extra-legal maneuvers in its effort to suppress peyotism. In 1925, the Bureau published an anti-peyote pamphlet that is probably one of the most propaganda-laden documents ever presented in the guise of an objective study. (87)

In 1933, John Collier became Commissioner of Indian Affairs and was instrumental in bringing about a more tolerant attitude toward peyotism. Since 1937, the opposition at the Federal level has largely disappeared, although a bill to make peyote illegal was introduced in the House as late as 1963. (38) In 1949, in response to a request to the American Medical Association by the Secretary

*An alternative interpretation is that a familiarity with peyote visions might influence the patterns seen in Rorschach blots.

**For a thorough discussion, see Slotkin's *The Peyote Religion*.⁽¹⁰⁴⁾

of the Interior for a survey on medical care among the Indians, Braasch, Branton and Chesley made the following comment:

The use of peyote has been a problem among Indians for many years. . . . Unfortunately, the Indian Bureau permitted the use of peyote among the Indians several years ago on the grounds that it was part of an Indian religious ceremony. . . . It is high time that the sale and possession of this drug be restricted by a national law. It is a habit-forming drug and acts on the nervous system as a stimulant and narcotic. The drug usually is taken prior to festival dances and causes excessive stimulation for several hours. The following day the addict is left in an exhausted condition and is incapable of physical exercise or labor.* (21)

The authors do not provide the source of their information, but it appears to be somewhat unreliable, or at least dated. The use of peyote "prior to festival dances" was prevalent in Mexico in the nineteenth century, but has never been a part of the Plains ceremony.

At the state level, anti-peyotist legislation has been more successful. Slotkin lists 14 states that passed laws against peyote between 1917 and 1937, (104) however, with a few exceptions no effort has been made to enforce these laws, and most have now been repealed or modified to permit ritual use by Indians. Recent action by the State Supreme Courts of Arizona and California have virtually eliminated resistance at the state level. (41, 114)

USE OF PEYOTE BY WHITES

At the time peyote attracted medical attention around 1900, several warnings were issued by physicians that it might prove dangerously attractive to whites as well as Indians. Weir Mitchell predicted "a perilous reign of the mescal habit when the agent becomes attainable, (84) and Havelock Ellis agreed that "there is every likelihood that mescal will become popular. (45) Ellis himself was attacked in an editorial in the *British Medical Journal* for painting too attractive a picture of the "artificial paradise." (50) The popular press joined in with lurid warnings on the "gigantic problem of spread to whites of this 'dry whiskey.'" (70) In 1933, a Swiss pharmacy embarked on an advertising campaign for "Peyotyl"

*According to Brant, the American Medical Association states that the position taken by Braasch, *et al.* does not represent the official stand of the American Medical Association; and, in fact, no official position has been taken regarding peyote. (22)

which was to "restore the individual's balance and calm and promote full expansion of his faculties."* (6)

Nevertheless, peyote has never achieved much acceptance outside the Indian population. Guttman states, "Experience has shown that the authors who thought that the pleasant state of intoxication produced by mescaline would speedily lead to addiction were wrong." (58) La Barre and Smith mention short-lived attempts to establish peyotism among the Negro, (64, 107) but otherwise its use seems to have been primarily limited to occasional experimentation by the curious.

In a recent study based on interviews of hospitalized drug addicts, Ludwig and Levine found that use of peyote and mescaline among opiate addicts is infrequent; some regular marihuana, amphetamine and barbiturate users engage in week-end parties with the stronger hallucinogens; and a few persons were found to take them exclusively, and at frequent intervals, for fairly long periods of time. (71) However, the abuse of peyote and mescaline is considered to be minor in comparison to other drugs. The 1962 White House Conference on Narcotic and Drug Abuse concludes:

In spite of lurid statements by some popular writers, this drug appeals to only a few individuals other than the American Indian. . . . Like other hallucinogens in the lysergic acid series, abuse of mescaline has comparatively little national significance. (121)

It is an interesting fact that the use of marihuana, which is illegal, is fairly widespread and increasing, while the much more potent hallucinogens, peyote and mescaline, are scarcely employed by whites. This is true, even though peyote may be legally ordered through the mail in most states, and until recently mescaline was also fairly easy to obtain.

III. CANNABIS

HISTORY AND DESCRIPTION

The cannabis or hemp plant is probably indigenous to Central Asia and has a very long history. According to Taylor, it was described in Chinese literature in 2737 B.C. and introduced into India prior to 800 B.C. (115) The drug cannabis is obtained from the flowering tops of the female plant, and it was used very early in China as an analgesic in

*This case drew the attention of the League of Nations Advisory Committee on Traffic in Opium and Other Dangerous Drugs in 1936. The Swiss Federal Public Health Service subsequently recommended that "it would be advisable to allow 'Peyotyl' to be supplied only on medical prescription." (6)

surgery. It has had wide use in indigenous medicine, especially in India, and to some extent in modern medicine beginning about 1860; however, it is now considered obsolete.

The use of cannabis as an intoxicant was well known in India by the ninth or tenth century A.D., and some authors place the date considerably earlier. (119) From India, it spread to North Africa and then to Europe around 1800. It has a fairly long history in Mexico and Latin America, but was not introduced into the United States to any appreciable extent until about 1920. Cannabis currently grows wild in almost all countries and is cultivated for the drug in many. It is used throughout the world as an intoxicant in various degrees — a survey sponsored by the United Nations in 1950 estimated world-wide usage by 200 million persons, the large majority of them in Asia and Africa. (77)

The potency of cannabis as an intoxicant varies widely depending on climate, cultivation, and preparation for use. There are three grades prepared in India. Bhang is cheap, low in potency and usually ingested as a drink; ganja is two to three times as strong; the most potent is charas, the unadulterated resin obtained from the plant or dried flower. (30) Smoking is the most common mode of consumption for ganja and charas. Cannabis preparations have many other names in various parts of the world — in Morocco it is called kif, in South Africa dagga, and in the United States and Latin America marihuana. These correspond roughly in potency to the bhang of India, though they are mostly smoked rather than ingested. The term hashish, when used correctly, is a powdered and sifted form of charas, or a preparation made from it; however, hashish is widely used in the literature to refer to any form of the cannabis drug. The marked differences in potency among the various preparations are probably responsible for some of the discrepancies between Eastern and Western findings that will be discussed later. From a consensus of several reports, the marihuana available in the United States is estimated to be one-fifth to one-eighth as potent as the charas resin of India. (16, 30, 79, 119)

The active ingredient of cannabis has been identified as tetrahydrocannabinol, but the chemistry is extremely complex and not completely understood. (54) Some 80 derivatives of tetrahydrocannabinol have now been synthesized and studied pharmacologically, and most are active in various degrees.

CANNABIS INTOXICATION AND ITS SIMILARITY TO THAT OF PEYOTE AND LSD

Pharmacology texts invariably classify cannabis as a hallucinogen, along with LSD, mescaline and psilocybin. Recent interest, however, has concentrated on the last three, probably because the "model psychosis" hypothesis grew out of work with these more potent hallucinogens. Also, those interested in examining the therapeutic effects of these agents have preferred to avoid the stigma attached to marihuana. On examining descriptions of cannabis intoxication, however, it is clear that virtually all of the phenomena associated with LSD are, or can, also be produced

with cannabis. (5, 17, 119) The wavelike aspect of the experience is almost invariably reported for cannabis as well as for all the other hallucinogens. Reports of perceiving various parts of the body as distorted, and depersonalization, or "double consciousness," are very frequent, as well as spatial and temporal distortion. Visual hallucinations, seeing faces as grotesque, increased sensitivity to sound and merging of senses (synesthesia) are also common. Heightened suggestibility, perception of thinking more clearly and deeper awareness of the meaning of things are characteristic. Anxiety and paranoid reactions may also occur. Walton writes:

The acute intoxication with hashish probably more nearly resembles that with mescaline than any of the other well-known drugs. Comparison with cocaine and the opiates does not bring out a very striking parallelism. With mescaline and hashish there are numerous common features which seem to differ only in degree. (119)

The difference between cannabis and the other hallucinogens must be understood in terms of the motivation of the user as well as the strength of the reaction. This is not to say that the set of the user is not very important for the others as well, but cannabis is especially amenable to control and direction so that the desired effects can usually be obtained at will. Michaux, a French writer, has repeatedly explored his own reactions to the various hallucinogens and writes, "Compared to other hallucinogenic drugs, hashish is feeble, without great range, but easy to handle, convenient, repeatable without immediate danger." (83) It is these features, plus the fact that consumption by smoking enables the experienced user to accurately control the amount absorbed, that makes cannabis a dependable producer of the desired euphoria and sense of well-being. This aspect is pointed up in the study by the New York Mayor's Committee which examined the reaction of experienced users to smoking and ingesting marihuana extract. (79) When smoking, the effect was almost immediate, and the subjects carefully limited the intake to produce the desired "high" feeling. They had no difficulty maintaining a "euphoric state with its feeling of well-being, contentment, sociability, mental and physical relaxation, which usually ended in a feeling of drowsiness." When ingested, the effect could not be accurately controlled and, although the most common experience was still euphoria, users also frequently showed anxiety, irritability, and antagonism. It is common knowledge among marihuana users that one must *learn* to use the drug effectively, and that beginners are often disappointed in the effect. (12)

With the much stronger and longer-lasting hallucinogens, LSD and mescaline, there is much less control and direction possible, and even the experienced user may find himself plunged into an agonizing hell. In summary, it appears that the reaction to cannabis is on a continuum with the other hallucinogens and, given the same motivation on the part of the user, will produce some of the same effects. On the other hand, cannabis permits a dependable controlled usage that is very difficult if not impossible with LSD and mescaline.

One distinct difference that does exist between cannabis and the other hallucinogens is its tendency to act as a true narcotic and produce sleep, whereas LSD and mescaline cause a long period of wakefulness. One other very important difference from the sociological standpoint is the lack of rapid onset of tolerance that occurs with the other hallucinogens. The cannabis intoxication may be maintained continuously through repeated doses, whereas the intake of LSD and mescaline must usually be spaced over several days to be effective. In addition, the evidence on the use of these drugs indicates that, although the mild euphoria obtained from cannabis may be desirable daily, or even more frequently, the overwhelming impact of the peyote and LSD experience generally results in a psychological satiation that lasts much longer than the tolerance effect.

MOTIVATION

In this country marihuana users almost invariably report the motivation is to attain a "high" feeling which is generally described as "a feeling of adequacy and efficiency" in which mental conflicts are allayed. (79) The experienced user is able to achieve consistently a state of self-confidence, satisfaction and relaxation, and he much prefers a congenial group setting to experiencing the effects alone. Unlike the reasons the Indian gives for taking peyote, the marihuana user typically does not claim any lasting benefits beyond the immediate pleasure obtained.

In India and the Middle East, cannabis is apparently taken under a much wider range of circumstances and motivations. The long history, wide range of amount used, and the fact that legal restrictions do not require its concealment permits investigation under a variety of conditions. Most Eastern investigators draw a clear distinction between the occasional or moderate regular user and those who indulge to excess. Chopra states that cannabis is still used fairly extensively in Indian indigenous medicine, and that it is also frequently taken in small quantities by laborers to alleviate fatigue. (29) In certain parts of India this results in a 50 percent increase in consumption during the harvest season. Chopra writes:

A common practice amongst laborers engaged on building or excavation work is to have a few pulls at a ganja pipe or to drink a glass of bhang towards the evening. This produces a sense of well-being, relieves fatigue, stimulates the appetite, and induces a feeling of mild stimulation, which enables the worker to bear more cheerfully the strain and perhaps the monotony of the daily routine of life.

Similarly, Benabud found moderate use of kif by the country people in Morocco to "keep spirits up." The need for moderation is expressed in the folk saying, "Kif is like fire; a little warms, a lot burns." (13) Bhang is also frequently used as a cooling drink or food supplement. (29)

The habitual use of cannabis as an intoxicant is also considerable,

although Chopra states that it has gradually declined over the past thirty years and "at the present time it is almost entirely confined to the lower strata of society. Amongst the upper and middle classes, the use of cannabis is nowadays considered to be derogatory, in spite of the fact that the practice was held in great esteem in ancient India, and early literature is full of references to the virtues of this drug." (29) Chopra found that the current usage is only one-fourth that consumed around 1900, and that the decline is largely due to government reduction of the area under cannabis cultivation and higher excise duty. He estimates the current number of regular users to be between 0.5 and 1.0 percent of the population.

Cannabis also has a long history of religious use in India, being taken at various ceremonies and for "clearing the head and stimulating the brain to think" in meditation. (29) It also plays a central role in the religions of certain primitive African and South American tribes. (86) In India, the religious use of cannabis is by no means always moderate. Chopra writes, "The deliberate abuse of bhang is met with almost entirely among certain classes of religious mendicants." (29)

Cannabis is widely believed to have aphrodisiac properties. Bouquet states that in North Africa the belief that cannabis will preserve, maintain or improve sexual powers is an important initiating cause of the habit. (17) In a sample of some 1,200, Chopra found 10 percent listed sexual factors as the exciting cause leading to the cannabis habit. (30) While cannabis intoxication may be sexually stimulating for some, several authors have claimed that prolonged and excessive use will eventually cause impotence. (13, 17, 29)

In the United States, two studies of marihuana use on the Army concluded that it frequently produced various homosexual and heterosexual perversions. (28, 76) On the other hand, the Mayor's Committee study in New York concluded "that in the main, marihuana was not used for direct sexual stimulation." (79) Their conclusions were based on the findings of six policemen and women who, for a period of one year, posed as marihuana habitues and visited numerous intimate marihuana gatherings and "tea pads," some of which were also brothels. The experimental portion of the study found that in about 10 per cent of the 150 marihuana administrations there was some evidence of eroticism. Whatever aphrodisiac qualities cannabis may possess, virtually all investigators agree these are cerebral in nature and due to the reduction of inhibition and increased suggestibility. It is probable that it is little, if any, more effective than alcohol in this respect. In fact, Chopra writes, "Amongst profligate women and prostitutes bhang-sherbet used to be a popular drink in the course of the evening when their paramours visited them. This practice has, however, been largely replaced by the drinking of alcohol which is much more harmful." (30) Chopra also mentions that certain "saintly people who wish to renounce world pleasure use cannabis drugs for suppressing sexual desires." (29)

One final motivation should be mentioned — that of musicians who feel marihuana improves their ability. Walton writes, "The habit is so

common among this professional group that it may properly be considered a special occupational hazard." (119) Aldrich and Williams both found that experienced marihuana users perform worse on musical tests under the effects of the drug, whereas the self-evaluation of the subjects indicated the majority felt they had performed better. (3, 122) Williams did report, however, that three out of twelve subjects tested showed "marked improvement" in auditory acuity. Morrow found no change in either musical ability or auditory acuity. (79)

In addition to the stated motivations for using cannabis, evaluations of the underlying sociological and psychological basis are of interest, particularly in instances of excessive indulgence. In this country there is very little evidence of excessive use approaching that of some groups in the East; there is general agreement, however, that the majority of regular marihuana users suffer from basic personality defects. The Mayor's Committee study in New York found that most marihuana users "were unemployed and of the others most had part-time employment." (79) This study also administered extensive personality tests to 48 users and 24 nonusers. The subjects were prisoners, and therefore the sample is somewhat biased; they found, however, that the user group when undrugged was differentiated from the nonuser group by greater emotional inhibition and introversion. Maurer and Vogel characterize the marihuana user as follows:

most of them appear to be rather indolent, ineffectual young men and women who are, on the whole, not very productive. . . . Most habitual users suffer from basic personality defects similar to those which characterize the alcoholic. (77)

According to the literature, most marihuana users come from the lower socio-economic classes and there is a preponderance of Negroes and Latin Americans. (79) Four studies of marihuana use in the Army found 90 per cent or more of the samples were Negro. (28, 50, 51, 76) In recent years there appears to be an increasing use of marihuana by college students, and by middle and upper class groups in certain urban centers.

In the Eastern countries, most investigators dismiss the occasional or moderate regular use of cannabis in about the same way as moderate use of alcohol is considered in this country. Excessive indulgence, however, particularly with the more potent preparations, is invariably considered indicative of serious personality defects. As in the United States, the majority of users are in the lower socio-economic classes.

Benabud stresses that the major problems with cannabis in Morocco exist among the urban slum dwellers, especially among those who have newly come from the country and are "no longer buttressed by traditional customs." (13) By contrast, he points out that although kif is widely used among the country people, there is no sign of compulsive need, such as exists "among the uprooted, and poverty-stricken proletariat of the large

town." Benabud also cites individual psycho-pathological factors as prominent causes of excessive indulgence:

the mental attitudes and behavior usual in the emotionally immature are extremely common — prevalence of the imaginary over the real, of the present over the future, with the impulsive need of the habitually frustrated for immediate satisfaction of desire. . . . Thus, the importance and the frequency of constitutional predispositions are clear, a fact which justifies the adaptation of the well-known saying, "You are a kif addict long before you smoke your first pipe."

FREQUENCY OF USE AND THE QUESTION OF ADDICTION

The confirmed user takes cannabis at least once per day; however, many others indulge only occasionally. There are no statistics on the ratio of regular to occasional users, but Bromberg found that only a small proportion of those who smoked marihuana in New York used it regularly. (24) Of those who use it regularly in the United States, most report they have voluntarily or involuntarily discontinued the habit from time to time without difficulty. (79)

Several studies have reported that the average number of marihuana cigarettes smoked by regular users in the United States is around 6 to 10 per day. (28, 79, 122) Two experiments in which regular marihuana users were encouraged to consume as much as desired found no evidence of tolerance or withdrawal symptoms. (101, 122)

Chopra collected detailed statistics on the sample of 1,200 regular users in India. (30) Seventy per cent had practiced the habit for more than ten years. Seventy-two per cent used only cannabis, while the others also took alcohol, opium, or other drugs. Most of those using the bhang drink did not take excessive amounts, but 46 per cent of the ganja and charas smokers consumed in excess of 90 grains per day (18 per cent used in excess of 180 grains). More than half of both groups used the drug two or more times per day.

Benabud states that confirmed kif smokers in Morocco consumed from 20 to 30 pipes a day and 40 to 50 is not infrequent. (13) As mentioned at the beginning of this section, marihuana available in the United States is, at most, only one-fifth as potent as charas and probably about one-third as potent as ganja. An average consumption of eight marihuana cigarettes (0.5 gram each) per day would thus be roughly equivalent to 12 grains of charas or 21 grains of ganja. When we consider that almost one-half of the ganja and charas smokers in Chopra's sample used from 90 to 360 grains per day, it is clear that the average consumption of marihuana by regular users in the United States is very mild in comparison.

Regarding the question of addiction to cannabis, most investigators agree there is generally no physiological dependence developed and only slight tolerance. This applies particularly to the moderate use observed in the United States. In the Mayor's Committee study, the officers who

posed as marihuana habitués found no evidence of compulsion on the part of the user — there was no particular sign of frustration or compulsive seeking of a source of marihuana when it was not immediately available. (79)

Concerning the use of cannabis in India, Chopra writes:

The tolerance developed both in animals and man was generally slight, if any, and was in no way comparable to that tolerance developed to opiates. Its occurrence was observed only in those individuals who took excessive doses, after its prolonged use. . . . Habitual use of bhang can be discontinued without much trouble, but withdrawal from ganja and charas habits, in our experience, is more difficult to achieve, and is sometimes accompanied by unpleasant symptoms, though they are negligible compared with those associated with withdrawal from opiates and even cocaine. (29)

Chopra writes that many persons indulge in the milder bhang drinks in summer and discontinue it during the winter. (31) In Morocco Benabud found that kif smokers did not show progressively increased consumption, that habituation was not appreciable — only about one-third using it regularly, and that withdrawal was not usually followed by psychic or somatic effects. (13) The only report differing from these findings is one by Fraser who indicated rather severe withdrawal symptoms in nine Indian soldiers addicted to ganja. (49)

PHYSICAL AND MENTAL EFFECTS

Some features of the cannabis intoxication have already been discussed. When taken orally, the effects begin in one-half to one hour and usually last from two to four hours. The effects of smoking are almost immediate and typically last from one to three hours. The safety factor is enormous — Walton lists only two deaths due to overdoses which have been reported in the literature. (119)

The Mayor's Committee administered a wide range of physical, mental and personality tests to 72 prisoners under the effects of various dose levels, both ingested and smoked. (79) The physiological effects were minimal — increased pulse rate, hunger and frequency of urination. The major psycho-motor effect was decreased body and hand steadiness. Intellectual functions are impaired, and the effect is greater for complex tasks, large doses and non-users. Emotional and personality measures showed increased feelings of relaxation, disinhibition, and self-confidence, but basic personality structures did not change.

Although the dominant emotional reaction is euphoria, acute intoxication can cause severe anxiety, panic, and paranoid reactions. Six of the subjects in the Mayor's Committee study experienced such episodes lasting from three to six hours; all occurring after the drug was ingested rather than smoked.

The Mayor's Committee compared the 48 users and 24 nonusers

from the standpoint of mental and physical deterioration resulting from long-term use of marihuana. They also conducted detailed quantitative measures on 17 of those who had used it the longest (mean 8 years, range 2 to 16; mean dose per day 7 cigarettes, range 2 to 18). They conclude that the subjects "had suffered no mental or physical deterioration as a result of their use of the drug." (79) Freedman and Rockmore also report that their sample of 310, who had used marihuana an average of seven years, showed no mental or physical deterioration. (50)

In India, the study of the mental, moral and physical effects of cannabis has had a long history, beginning with a seven-volume report issued by the Indian Hemp-Drug Commission in 1894. Their conclusions, as quoted by Walton (119) are as follows:

The evidence shows the moderate use of ganja or charas not to be appreciably harmful, while in the case of bhang drinking, the evidence shows the habit to be quite harmless. . . . The excessive use does cause injury. . . . tends to weaken the constitution and to render the consumer more susceptible to disease. . . . Moderate use of hemp drugs produces no injurious effects on the mind. . . . excessive use indicates and intensifies mental instability.

The commission continued, as quoted by Chopra: (30) "it (bhanga) is the refreshing beverage of the people corresponding to beer in England and moderate indulgence in it is attended with less injurious consequences than similar consumption of alcohol in Europe." Chopra writes, "This view has been corroborated by our own experience in the field."

Chopra provides numerous statistics on the effect of cannabis on health by dose size and mode of consumption. (30) In the previously mentioned sample of 1,200 regular users, there was a distinct difference in the effects on health, as reported by the user, depending on the amount consumed. For those using less than ten grains, none claimed impairment of health, whereas 75 per cent of those using in excess of 90 grains per day indicated some impairment.

The most common physical symptom found by Chopra was conjunctivitis (72 per cent); this effect is frequently reported by other investigators and is a well-known means of detecting cannabis users. Chopra also found chronic bronchitis was frequent among ganja and charas smokers, as well as a higher-than-average incidence of tuberculosis. Various digestive ailments were reported, and habitual use of large doses resulted in defective nutrition and a deterioration of general health. The fact that excessive use and the resulting impairment of health is much more common among users of the more potent preparations (ganja and charas) has been recognized by the various governments, and the use of charas is now illegal in all countries. (17) Bhang, and comparable preparations in other Eastern countries are often legal, but the cultivation and sale are generally controlled by the government.

Turning now to the relation between cannabis and psychosis, it is well established that transient psychotic reactions can be precipitated by

using the drug, and, in susceptible individuals, this may occur even with moderate or occasional use. Out of a total of 72 persons used as experimental subjects the Mayor's Committee reports three cases of psychosis: one lasted four days, another six months, and one became psychotic two weeks after being returned to prison (duration not noted). (79) The Committee concludes, "that given the potential personality make-up and the right time and environment, marihuana may bring on a true psychotic state." On the other hand, Freedman and Rockmore report no history of mental hospitalization in their sample of 310 who had an average of seven years usage. (50) Similarly, the United States Army investigation in Panama found no report of psychosis due to marihuana smoking in a sample of several hundred users over a period of one year. (101)

Bromberg reported on thirty-one cases admitted to the hospital as a result of using marihuana. (23, 24) Fourteen were described as "acute intoxication" that lasted from several hours to several days and was often accompanied by severe anxiety or hysterical reaction and transient panic states or depressions.

In India and other Eastern countries, cannabis has long been considered an important cause of psychosis, and many of the early authors classified 30 to 50 per cent of hospitalized mental cases as cannabis psychosis. (119) It is now considered that the casual effects of cannabis were somewhat exaggerated, but there is generally agreement among Eastern writers that the drug plays a significant role in the precipitation of transient psychoses. Benabud cites the following data on psychiatric admissions to one hospital in Morocco. In the two-year period (1955-1956), 25 per cent of the some 2,300 male admissions were diagnosed as "genuine" cannabis psychoses, and 70 per cent of the total admitted to smoking kif (one-third were regular users). (13) Since the incidence of cannabis use in Morocco is estimated to be considerably less than 10 per cent of the population, it is clear that there is a definite associative, if not causative, relationship between cannabis and psychosis. Benabud estimates that of the total population of kif smokers, the number "suffering from recurrent mental derangement" is not more than five per thousand. Of Chopra's sample of 1,200 regular users, 13 were classified as psychotic. (30) Benabud especially stresses excessive use and environmental factors, pointing out that the rate of psychosis among the moderate-smoking country people is only one-tenth that in the large cities.

Benabud classifies the cannabis psychosis as acute or subacute (74 per cent), residual (17 per cent) and psychical deterioration (9 per cent). He describes the first category as usually resulting from a sharp toxic overdose and lasting for several days. The main features are excitation and impulsivity which may produce acts of violence. Sometimes there are continuing disassociations or "spectator ego" and delusions of grandeur, especially identification or kinship with God. Patients in the residual classification have longer lasting syndromes including schizophrenic-like withdrawal, mental confusion and mild residual hallucinations. There is little tendency for symptoms to become organized and proliferate, but rather to disappear gradually after a few months. The third class (can-

nabis deterioration) is described as the result of prolonged, excessive use of cannabis, resulting in precocious senility and over-all physical and mental deterioration. "These are the old addicts, exuberant, friendly, kif-happy vagabonds, often oddly dressed and living by begging."

Bouquet feels the fact that male hospitalized psychotics outnumber females three to one in North Africa is a consequence of cannabis use being almost entirely restricted to males. (17) He considers charas to be much more dangerous in this regard than the milder forms of cannabis, and states that the incidence of cannabis psychosis has appreciably declined because charas is now prohibited and only the "raw cannabis ends" are used.

The chronic cannabis psychosis reported by Eastern writers has not been observed in this country. Most Western authors, while recognizing the role of cannabis in precipitating acute transient psychoses, have questioned the causal role in chronic cases. Mayer-Gross writes: "The chronic hashish psychoses described by earlier observers have proved to be cases of schizophrenia complicated by symptoms of cannabis intoxication." (78) Allentuck states that "a characteristic cannabis psychosis does not exist. Marihuana will not produce a psychosis *de novo* in a well-integrated, stable person." (4) And Murphy writes: "The prevalence of *major* mental disorder among cannabis users appears to be little, if any, higher than that in the general population." (86) Since it is well established that cannabis use attracts the mentally unstable, Murphy raises the interesting question of "whether the use of cannabis may not be protecting some individuals from a psychosis." Regardless of the issue of chronic psychosis, it is clear from Eastern descriptions that gross personality changes do result from very prolonged and excessive use of cannabis. The complete loss of ambition and the neglect of personal habits, dress, and hygiene resemble characteristics of the skid-row alcoholic in this country.

CANNABIS AND CRIME

The association of crime with the use of cannabis goes back at least to around 1300 when Marco Polo described Hasan and his band of assassins (see Walton or Taylor). The drug was reportedly used to fortify courage for committing assassinations and other violent crimes, and the words hashish and assassin are supposed to be derived from this source. In certain parts of this country, a near hysteria developed about 1930 when the use of marihuana was claimed to be related to a violent crime wave and the widespread corruption of school children. Dr. Gomila, who was Commissioner of Public Safety in New Orleans, wrote that some homes for boys were "full of children who had become habituated to the use of cannabis," and that, "Youngsters known as 'muggle-heads' fortified themselves with the narcotic and proceeded to shoot down police, bank clerks and casual by-standers." (53) Sixty per cent of the crimes committed in New Orleans in 1936 were attributed to marihuana users.

Despite these lurid claims, subsequent studies have, for the most part, failed to substantiate a casual relationship between major crimes and cannabis. Bromberg conducted two large statistical studies and found

very little relation between crime and the use of marihuana. (23, 24) The Mayor's Committee found that many marihuana smokers were guilty of petty crimes, but there was no evidence that the practice was associated with major crimes. (79)

More recent assessments tend to agree with these findings. The Ad Hoc Panel on Drug Abuse at the 1962 White House Conference states, "Although marihuana has long held the reputation of inciting individuals to commit sexual offenses and other anti-social acts, evidence is inadequate to substantiate this." (121) Maurer and Vogel write:

It would seem that, from the point of view of public health and safety, the effects of marihuana present a very minor problem compared with the abusive use of alcohol, and that the drug has received a disproportionate share of publicity as an inciter of violent crime. (77)

Chopra found that the crime rate for the sample of 1,200 regular cannabis users in India was higher than that for the general population. (30) For bhang users, 6 per cent had one conviction and 3 per cent had more than one; for ganja and charas users, the comparable percentages were 12 and 17. In a further study of serious, violent crimes, however, especially murder cases, Chopra found that cannabis intoxication was responsible for only 1 to 2 per cent of the cases. (29) In addition to impulsive acts performed under acute cannabis intoxication, there are frequent references in the literature to criminals using the drug to provide courage to commit violent acts. There has been no evidence offered to substantiate this claim; rather, Chopra writes as follows regarding premeditated crime:

In some cases these drugs not only do not lead to it, but actually act as deterrents. We have already observed that one of the important actions of these drugs is to quieten and stupify the individual so that there is no tendency to violence, as is not infrequently found in cases of alcoholic intoxication. (29)

Similarly, Murphy writes:

Most serious observers agree that cannabis does not, *per se*, induce aggressive or criminal activities, and that the reduction of the work drive leads to a negative correlation with criminality rather than a positive one. (86)

It is interesting that a number of observers, particularly in countries other than the United States, consider alcohol to be a worse offender than cannabis in causing crime. For instance, an editorial in the *South African Medical Journal* states:

Dagga produces in the smoker drowsiness, euphoria and occasional psychotic episodes, but alcohol is guilty of even graver action. It is not certain to what extent dagga contributes to the commission of crime in this country. Alcohol does so in undeniable measure. (42)

In the United States, probably the most serious accusation made regarding marihuana smoking is that it often leads to the use of heroin. (77) The Mayor's Committee found no evidence of this, stating, "The instances are extremely rare where the habit of marihuana smoking is associated with addiction to these other narcotics." (79) Nevertheless, it is difficult to see how the association with criminal peddlers, who often also sell heroin, can fail to influence some marihuana users to become addicted to heroin.

SUMMARY AND APPRAISAL

Cannabis is an hallucinogen whose effects are somewhat similar to, though much milder than, peyote and LSD. The confirmed user takes it daily or more frequently, and through experience and careful regulation of the dose is able to consistently limit the effects to euphoria and other desired qualities. Unlike peyote, there are typically no claims of benefit other than the immediate effects. Mild tolerance and physical dependence may develop when the more potent preparations are used to excess; however, they are virtually nonexistent for occasional or moderate regular users. There are apparently no deleterious physical effects resulting from moderate use, though excessive indulgence noted in some Eastern countries contributes to a variety of ailments. The most serious hazard is the precipitation of transient psychoses. Unstable individuals may experience a psychotic episode from even a small amount, and although they typically recover within a few days, some psychoses triggered by cannabis reactions may last for several months. In Eastern countries, where cannabis is taken in large amounts, some authors feel that it is directly or indirectly responsible for a sizable portion of the intakes in psychiatric hospitals.

In this country cannabis is not used to excess by Eastern standards; however, it does attract a disproportionate number of poorly adjusted and nonproductive young persons in the lower socio-economic strata. There is some evidence that its use among other groups is increasing, but is not readily observable because of the lack of police harassment and publicity. In Eastern countries cannabis use is currently also more prevalent in the lower classes; however, moderate use is not illegal, socially condemned, nor necessarily considered indicative of personality defects. The reputation of cannabis for inciting major crimes is unwarranted and it probably has no more effect than alcohol in this respect.

Of those familiar with the use of marihuana in this country, there is general agreement that the legal penalties imposed for its use are much too severe. Laws controlling marihuana are similar or identical to those pertaining to the opiates, including the mandatory imposition of long prison sentences for certain offenses. Many judges have complained that these laws have resulted in excessive sentences (five to ten years) for relatively minor offenses with marihuana. The 1962 White House Conference made the following recommendation: "It is the opinion of the Panel that the hazards of marihuana *per se* have been exaggerated and that long criminal sentences imposed on an occasional user or possessor are in poor social perspective." (121)

The cultural attitude toward narcotics is, of course, a very important determiner of legal and social measures adopted for their control. An interesting commentary on the extent to which these attitudes resist change and influence factual interpretation is afforded by the lively debate that followed the publishing of the Mayor's Committee Report on Marihuana in 1944. (43, 7, 18, 19, 20, 75, 120) This was an extensive study conducted under the auspices of the New York Academy of Medicine at the request of Mayor La Guardia. Its findings tended to minimize the seriousness of the marihuana problem in New York and set off a series of attacks from those with opposing viewpoints. An American Medical Association editorial commented: "Public officials will do well to disregard this unscientific, uncritical study, and continue to regard marihuana as a menace wherever it is purveyed." (43) And, as Taylor points out, "We have done so ever since." (115) Anslinger, the Commissioner of Narcotics, wrote, "The Bureau immediately detected the superficiality and hollowness of its findings and denounced it." (8) The authors expressed dismay that the report was attacked on the grounds that the findings represented a public danger, rather than on its scientific aspects. (20) Walton, a leading authority on cannabis, wrote:

The report in question came generally to the same conclusion that any other group of competent investigators might reach if they repeated the inquiry under the same conditions. . . . A scientific study should be expected to report merely what it finds, avoid propaganda and let the public do what it will with the results. (120)

Murphy raises the question of why cannabis is so regularly banned in countries where alcohol is permitted. (86) He feels that one of the reasons is the positive value placed on action, and the hostility toward passivity:

In Anglo-Saxon cultures inaction is looked down on and often feared, whereas over-activity, aided by alcohol or independent of alcohol, is considerably tolerated despite the social disturbance produced. It may be that we can ban cannabis simply because the people who use it, or would do so, carry little weight in social matters and are relatively easy to control; whereas the alcohol user often carries plenty of weight in social matters and is difficult to control, as the United States prohibition era showed. It has yet to be shown, however, that the one is more socially or personally disruptive than the other.

IV. EXTRA-MEDICAL USE OF LSD

The incidence of extra- or para-medical use of LSD is difficult to estimate; although, with the exception of certain small groups, it is undoubtedly quite low. There are indications that it is becoming available via the black market, and that its use is increasing. (71) This final section

will attempt a perspective on the present and future roles of the stronger hallucinogens in the extra-medical area, based on current information and the history of peyote and cannabis presented in the two previous sections.

In spite of the tendency of many medical authorities to consider extra-medical use of LSD to be motivated by the desire for "kicks," the evidence indicates that the motivation of the majority of those who take, or desire to take, LSD is much more similar to that of the peyotists than the marihuana users. Sanford writes:

Those who advocate the drug's use [LSD] are not, in the main, after kicks, nor are they interested in antisocial activity. These advocates, who include intellectuals, professionals, and scientists, claim that the drug offers great benefits to the individual — rich inner experience, freedom to be himself, a chance for further development of his personality, and a loving rather than a hostile or indifferent attitude towards other people. (95)

To a considerable extent, this is the manner in which Indians view peyote. Of course, there are vast cultural and ritual differences between the Indian's taking of peyote and the current usage of LSD among whites, but the fact remains that both are largely motivated by hopes of beneficial, lasting effects rather than the desire for the immediate experience which characterizes the marihuana user. There is no reason to believe that the Indian's emphasis on *direct learning* from peyote is especially different from the reports of personal insight by the LSD taker.

As discussed in the previous sections, LSD and the other strong hallucinogens are not well-suited for the production of dependable and repeated euphoriant experiences as is the case with cannabis. The rapid onset of physical tolerance, difficulty of control, tendency to produce psychological satiation, and the fact that peyote and mescaline have not proved popular in this respect with either Indians or whites all attest that there is little likelihood of their use in this manner. Some persons who habitually take a wide variety of mind-affecting drugs will, of course, also take LSD, but there is little indication that it will be a favorite with this group. As indicated by some of Ludwig and Levine's drug-addict subjects, the effect of the stronger hallucinogens is "more like an ordeal than a pleasure." (71)

If we grant that the majority of persons who do, or would, take LSD are motivated by a desire for self-improvement and understanding, what is the evidence that such efforts will be successful? There is a large body of literature on the effectiveness of LSD as an adjunct to psychotherapy, but evidence for LSD-induced change outside the formal therapy setting is largely limited to subjective claims. Several investigators have remarked that their (non-therapy) subjects have frequently claimed better adjustment, lower anxiety, increased feelings of well-being and confidence, and lasting insights. (1, 93, 96) Some of these have administered follow-up questionnaires at post-LSD periods of up to three years, and found that about 40 to 60 per cent of the subjects claimed various personality, attitudinal and value changes attributable to the LSD experience. (39, 68, 113)

The author has conducted a preliminary experiment in conjunction with Dr. Sidney Cohen in which 15 subjects were given a battery of anxiety, attitude and performance tests prior to, and one week following, the administration of 200 mcg. LSD. (80) Significant drops in anxiety measures and certain attitude changes resulted, but no change was observed in the performance tests (intended to measure creativity in the form of fluency, flexibility and originality). A larger and more controlled study is currently underway which will measure the effects of three 200 mcg. sessions at post-LSD periods of two weeks and six months.

A recent development in the psychotherapeutic use of LSD is the single large dose technique (400 mcg. or more) with very little additional therapy. (33, 73, 85, 99) Special efforts are made to create strong positive expectations in the patient prior to the treatment, and the setting during the LSD session often has a decidedly mystical and religious flavor. The goal is to obtain a rapid personality change through a "massive reorganization" similar to a conversion experience.* There is a growing evidence that the method is surprisingly effective in the treatment of alcoholics. While the early claims of 40 to 50 per cent abstinence appears to be overly optimistic, there seems to be no doubt that some persons can almost miraculously be changed from chronic alcoholics to permanent abstainers in a period of 24 hours.

These results would seem to lend indirect support to claims of LSD-induced personality change made by persons taking the drug outside of a formal therapeutic setting. If a single high-dose LSD treatment can produce such a rapid, and clearly observable, behavioral change, it is not unlikely that some non-alcoholics will also experience rather dramatic personality alterations. It is accepted that naturally occurring traumatic events can result in a rapid personality shift—it is not especially surprising that a chemically-induced trauma can have similar effects.

If we grant that LSD-induced personality change can take place, such changes may or may not be viewed as desirable depending on the personal and social value system applied in the assessment. For instance, Cole and Katz ask:

How should one evaluate the outcome if an individual were, for example, to divorce his wife and take a job which paid him less but which he stated he enjoyed more than the one which he had previously held? If a person were to become more relaxed and happy-go-lucky, more sensitive to poetry or music, but less concerned with success or competition, is this good? There are suggestions that individuals who take drugs like LSD either illicitly or as therapy may become more detached from reality or less concerned with the real world, more "transcendental." (37)

*It is interesting to note that this method is not dissimilar to the ritual use of peyote by the Indians, including its reported effectiveness in combating alcoholism.

Still others have viewed the hallucinogens as a threat to the Western value system. McClelland has been quoted regarding the Harvard experience with psilocybin:

It is probably no accident that the society which most consistently encouraged the use of these substances, India, produced one of the sickest social orders ever created by mankind, in which thinking men spent their time lost in the Buddha position under the influence of drugs exploring consciousness, while poverty, disease, social discrimination and superstition reached their highest and most organized form in all history. (55)

Mellen gives his impression after a peyote experience:

what I found in peyote seemed squarely in contradiction with all the patterns of Western, industrial society: it did not fit in with the utilitarian context of my life and culture. It is worth wondering whether a society like ours could function if it were predicated on consciousness expansion. (82)

The questions raised by these writers are intriguing because they take the issue of drugs out of the usual context of individual problems related to excessive indulgence (primarily of alcohol) and suggest that they might threaten the social value system. The repeated use of the stronger hallucinogens might indeed have a profound impact on the social values of an isolated group. The ritual use of peyote undoubtedly plays an important role among the Plains Indians, and this came about in a relatively short period of time. It is well to remember, however, the crucial role of the environment in determining the effect of hallucinogens. It is one thing to have such an experience and continue to live in the environment of the American Indians—it is quite another to come back abruptly to a competitive Western culture.

Turning now to the hazards accompanying the use of LSD, there have been a number of strong warnings from physicians. (37, 47, 56, 57) Most have been limited to its use outside of medical supervision, but Grinker writes, "The drugs are indeed dangerous even under the best of precautions and conditions." (56) More recently Levine and Ludwig (69) have argued along with Cohen (35) for their safety when administered under proper medical supervision.

Although there are no statistics available, it seems probable that the incidence of psychotic reactions from LSD taken without medical supervision is considerably higher than the 0.8 per 1000 reported by Cohen for experimental subjects. Lack of screening of subjects, uncontrolled dose level, improper care during the intoxication, and lack of facilities for terminating severe reactions will all tend to result in a higher rate of complications. In particular, mild paranoid reactions, which are rather common, rarely pose a serious problem if handled properly, but when LSD is taken alone or with an untrained person, such reactions can balloon and become quite acute, sometimes lasting for several days or

weeks. The history of peyote use by the Indians would seem to indicate, however, that there is no general deterioration or psychosis in store for those who use LSD repeatedly over long periods of time as has been suggested by some authors. (47, 57) As in the case of cannabis, psychotic reactions to LSD are virtually all transient in nature, although a few recover slowly over a period of months. There is no compulsion to continue taking LSD; a person experiencing a very severe anxiety reaction usually has no desire to take it again. La Barre mentions that he has known several Indians who stopped taking peyote after such a reaction, (64) and the author has known persons who abruptly terminated their self-experimentation with LSD for the same reason.

There have been no cases reported of LSD addiction in the usual sense, but a peculiar type of "addiction" seems to have developed — its principal characteristic is a severe state of overenthusiasm. Barron, Jarvik and Bunnell write, "there is a tendency for those who ingest hallucinogens habitually to make the drug experience the center of all their activities." (11) Grinker writes that one of the motivations is "belonging to a 'superior' social group which transcends the mundane existence of ordinary people." (56) The 1962 White House Conference reports that abuse of LSD and similar drugs is primarily limited to the "long-hair" and beatnik cults which experiment with the use of psychotropic drugs to achieve group cohesiveness and personal nirvana" (121) — goals that incidentally are not considered particularly reprehensible under other circumstances. Cole and Katz express concern that "investigators who have embarked on serious scientific work in this area have not been immune to the deleterious and seductive effects of these agents." (37) Cohen notes that there has been "an impressive morbidity [of therapists] in view of the relatively small number of American practitioners using the hallucinogens." (34) Grinker waxes a bit overenthusiastic himself with his statement, "At one time it was impossible to find an investigator willing to work with LSD-25 who was not himself an 'addict'." (56)

It is hardly surprising that the very intense effects of the LSD experience can produce such overenthusiasm in some individuals — the reported mystical, transcendental, self-insightful experiences have proved very impressive to a number of sophisticated persons — they are not likely to be dismissed lightly by those more suggestible. Fortunately, "over-enthusiasm," from whatever source, tends to be transitory in nature, and most of those so affected can expect to recover with no more treatment than the passage of time. Shelton (98) has noted that Ching Yuan aptly describes a similar state:

When I knew nothing of Zen, mountains were to me just mountains and waters just waters, but when I knew a little of Zen, mountains were no longer mountains, waters no longer waters; but when I had thoroughly understood, once again, mountains were mountains and waters were waters.

The controversy over the para-medical roles of LSD and similar drugs promises to grow more intense because of the complex evaluation of

benefits vs. hazards. There also appears to be a re-evaluation of the hazards of marihuana, and a recognition that the associated legal penalties are far too severe. In one sense the prohibition of marihuana and not the stronger hallucinogens is analogous to banning beer but not distilled liquor. However, the arguments in favor of LSD include those of religion, values, and freedom to improve one's personality — issues which are considered very important in our culture. Proponents for legalizing marihuana are mostly limited to the position that it provides escape and recreation and is probably less harmful than alcohol.

On the other hand, Huxley has repeatedly argued that a more rational policy would not simply accept the admittedly very unsatisfactory alcohol as inevitable, but would seek to replace it with better drugs:

the need for frequent chemical vacations from intolerable selfhood and repulsive surroundings will undoubtedly remain. What is needed is a new drug which will relieve and console our suffering species without doing more harm in the long run than it does good in the short. (60)

The search for other chemical escapes does go on, but considering that we have abandoned the investigation to juveniles and beatniks, it is not surprising that we get nothing better than glue, nutmeg, and morning-glory seeds.

In conclusion, the primary purpose of this paper has been to broaden the perspective from which hallucinogenic drugs are considered. Many current articles on hallucinogens end with a conclusion on their *use* and *abuse*. The proper use is as a tool to investigate mental chemistry, and possibly as a treatment of neuroses; the illicit abuse is for "kicks" and cults. Thus the reader is handed a neatly packaged assessment that in no way conflicts with his personal or cultural preconceptions of the good and bad roles of drugs. It is a curious inconsistency that we readily accept such inflexible dichotomies without realizing that our favorite intoxicant, alcohol, is very much a drug. A much broader perspective will be needed to fully explore the potentials of the very potent and versatile hallucinogens. The Indians have long contended that "peyote teaches"; Huxley and many others have also thought they saw the possibility of valuable education experiences via a "chemical Door in the Wall." The extent to which we explore these possibilities is largely dependent on our ability to transcend cultural and semantic boundaries.

REFERENCES

1. Abramson, H. A., et al., "Lysergic Acid Diethylamide (LSD-25): XVII Tolerance Development and Its Relationship to the Theory of Psychosis," *J. of Psychol.*, 41, 1956, pp. 81-105.
2. Abramson, H. A. (ed.), *The Use of LSD in Psychotherapy*, Josiah Macy, Jr. Foundation Publications, New York, 1960.
3. Aldrich, C. K., "The Effect of a Synthetic Marihuana-like Compound on Musical Talent as Measured by the Seashore Test," *Public Health Report*, 59, 1944, pp. 431-433.
4. Allentuck, S. and K. M. Bowman, "The Psychiatric Aspects of Marihuana Intoxication," *Amer. J. of Psychiat.*, 99, 1942, pp. 248-251.

5. Ames, F., "A Clinical and Metabolic Study of Acute Intoxication with Cannabis Sativa and Its Role in the Model Psychoses," *J. Mental Sci.*, 104, 1958, pp. 972-999.
6. Anonymous, "Peyotl," *Bull. on Narcotics*, No. 2, 1959, pp. 16-41.
7. Anslinger, H. J., "More on Marihuana and Mayor La Guardia's Committee Report," *J. A. M. A.*, 128, 1945, p. 1187.
8. Anslinger, H. J. and W. G. Tompkins, *The Traffic in Narcotics*, Funk & Wagnalls, New York, 1953.
9. Arth, M. J., "A Functional View of Peyotism in Omaha Culture," *The Plains Anthropologist*, 7, 1956, pp. 25-29.
10. Barber, B., "A Socio-Cultural Interpretation of the Peyote Cult," *Amer. Anthropologist*, 43, 1941, pp. 673-675.
11. Barron, F., M. E. Jarvik and S. Bunnell, "The Hallucinogenic Drugs," *Scientific American*, 210, April 1964, pp. 29-37.
12. Becker, H. S., "Becoming a Marihuana User," *Amer. J. of Sociol.*, 59, 1953, pp. 235-242.
13. Benabud, A., "Psycho-pathological Aspects of the Cannabis Situation in Morocco: Statistical Data for 1956," *Bulletin on Narcotics*, 9, No. 4, 1957, pp. 1-16.
14. Benedict, Ruth, "The Visions in Plains Culture," *Amer. Anthropologist*, 24, 1922, pp. 1-23.
15. Blum, R. and Associates, *Utopiates, The Use and Uses of LSD-25*, Atherton, New York, 1964.
16. Bouquet, R. J., "Cannabis, Parts I and II," *Bull. on Narcotics*, 2, No. 4, 1950, pp. 14-30.
17. ———, "Cannabis, Parts III-V," *Bull. on Narcotics*, 3, No. 1, 1951, pp. 22-43.
18. ———, "Marihuana Intoxication," *J. A. M. A.*, 124, 1944, pp. 1010-1011.
19. Bowman, K. M., "Marihuana Problems," *J. A. M. A.*, 128, 1945, pp. 899-900.
20. ———, "Psychiatric Aspects of Marihuana Intoxication," *J. A. M. A.*, 125, 1944, p. 376.
21. Braasch, W. F., B. J. Branton and A. J. Chesley, "Survey of Medical Care Among the Upper Midwest Indians," *J. A. M. A.*, 139, 1949, pp. 220-225.
22. Brant, C. S., "Peyotism Among the Kiowa-Appache and Neighboring Tribes," *Southwestern J. of Anthropology*, 6, 1950, pp. 212-222.
23. Bromberg, W., "Marihuana: A Psychiatric Study," *J. A. M. A.*, 113, 1939, pp. 4-12.
24. ———, "Marihuana Intoxication," *Amer. J. of Psychiat.*, 91, 1934, pp. 303-330.
25. Bromberg, W. and C. L. Tranter, "Peyote Intoxication: Some Psychological Aspects of the Peyote Rite," *J. of Nervous and Mental Disease*, 97, 1943, pp. 518-527.
26. Buchanan, D. N., "Mescaline Intoxication," *British J. Med. Psychol.*, 9, 1929, pp. 67-88.
27. Bunzel, Ruth, "The Role of Alcoholism in the Central American Cultures," *Psychiat.*, 3, 1940, pp. 361-387.
28. Charen, S. and L. Perelman, "Personality Studies of Marihuana Addicts," *Amer. J. of Psychiat.*, 102, 1946, pp. 674-682.
29. Chopra, I. C. and R. N. Chopra, "The Use of Cannabis Drugs in India," *Bull. on Narcotics*, 9, No. 1, 1957, pp. 4-29.
30. Chopra, R. N. and G. S. Chopra, "The Present Position of Hemp-Drug Addiction in India," *Indian J. Med. Res. Memoirs*, No. 31, 1939, pp. 1-119.
31. Chopra, R. N. and I. C. Chopra, "Treatment of Drug Addiction: Experience in India," *Bull. on Narcotics*, 9, No. 4, 1957, pp. 21-33.
32. Christensen, C. W., "Religious Conversion," *Arch. Gen. Psychiat.*, 9, 1963, pp. 207-216.
33. Chwelos, N., et al., "Use of d-Lysergic Acid Diethylamide in the Treatment of Alcoholism," *Quart. J. Stud. on Alcohol*, 20, 1959, pp. 577-590.
34. Cohen, S., *The Beyond Within, the LSD Story*, Atheneum, New York, 1964.
35. ———, "Lysergic Acid Diethylamide: Side Effects and Complications," *J. Nerv. Ment. Dis.*, 130, 1960, pp. 30-40.

36. Cohen, S. and K. S. Ditman, "Prolonged Adverse Reactions to Lysergic Acid Diethylamide," *Arch. Gen. Psychiat.*, 8, 1963, pp. 475-480.
37. Cole, J. O. and M. M. Katz, "The Psychotomimetic Drugs, An Overview," *J. A. M. A.*, 187, 1964, pp. 758-761.
38. Congressional Record, H. R. 9488, December 13, 1963, p. 23391.
39. Ditman, K. S., M. Hayman and J. Whittlesey, "Nature and Frequency of Claims Following LSD," *J. Nerv. Ment. Dis.*, 134, 1962, pp. 346-351.
40. Dittmann, A. T. and H. C. Moore, "Disturbance in Dreams as Related to Peyotism Among Navaho," *Amer. Anthropologist*, 59, 1957, pp. 642-649.
41. Dustin, C. B., *Peyotism in New Mexico*, Vergara, Santa Fe, N.M., 1960.
42. Editorial, "Dagga," *So. African Med. J.*, 25:17, 1951, pp. 284-286.
43. Editorial, "Marihuana Problems," *J. A. M. A.*, 127, 1945, p. 1129.
44. Editorial, "Paradise or Inferno?" *British Med. J.*, 1898, p. 390.
45. Ellis, H., "A Note on the Phenomena of Mescal Intoxication," *Lancet*, Vol. 1, 1897, pp. 1540-1542.
46. ———, "Mescal: A New Artificial Paradise," *Contemporary Rev.*, 73, 1898, pp. 130-141.
47. Farnsworth, D. L., "Hallucinogenic Agents," *J. A. M. A.*, 185, 1963, p. 878.
48. Fernberger, S. W., "Further Observations on Peyote Intoxication," *J. Abnorm. Soc. Psychol.*, 26, 1932, pp. 367-378.
49. Fraser, J. D., "Withdrawal Symptoms in Cannabis-Indica Addicts," *Lancet*, Pt. 2, 1949, p. 747.
50. Freedman, H. L. and M. J. Rockmore, "Marihuana, Factor in Personality Evaluation and Army Maladjustment," *J. Clin. Psychopathology*, 7, and 8, 1946, pp. 765-782 and 221-236.
51. Gaskill, H. S., "Marihuana, an Intoxicant," *Amer. J. of Psychiat.*, 102, 1945, pp. 202-204.
52. Goldman, R. P., "Instant Happiness," *Ladies Home Journal*, October 1963, pp. 67-71.
53. Gomila, F. R., "Present Status of the Marihuana Vice in the United States," in *Marihuana, America's New Drug Problem*, Lippincott, New York, 1938.
54. Goodman, L. S. and A. Gilman, *The Pharmacological Basis of Therapeutics*, The Macmillan Co., New York, 1955, p. 171.
55. Gordon, N., "The Hallucinogeni: Drug Cult," *The Reporter*, Aug. 15, 1963, pp. 35-43.
56. Grinker, R. R., "Bootlegged Ecstasy," *J. A. M. A.*, 187, 1964, p. 768.
57. ———, "Lysergic Acid Diethylamide," *Arch. Gen. Psychiat.*, 8, 1963, p. 21.
58. Guttman, E., "Artificial Psychoses Produced by Mescaline," *J. of Mental Sci.*, 82, 1936, pp. 203-221.
59. Harper, R. H., Bulletin 21, Office of Indian Affairs, Washington, 1923.
60. Huxley, A., *The Doors of Perception*, Harper Brothers, New York, 1954.
61. Kluver, H., *Mescal, The "Divine" Plant and Its Psychological Effects*, K. Paul, Trench, Trubner and Company, London, 1928.
62. La Barre, W., "A Cultist Addiction in an American Indian Alcoholic," *Bull. Menninger Clin.*, 5, 1941, pp. 40-46.
63. ———, "Primitive Psychotherapy in Native American Cultures: Peyotism and Confession," *J. of Abnorm. Soc. Psychol.*, 24, 1947, pp. 294-309.
64. ———, *The Peyote Cult*, Yale University Press, New Haven, Conn., 1938.
65. ———, "Twenty Years of Peyote Studies," *Current Anthropology*, 1, 1960, pp. 45-60.
66. La Barre, et al., "Statement on Peyote," *Science*, 114, 1951, pp. 582-583.
67. Leary, T. and R. Alpert, "The Politics of Consciousness Expansion," *The Harvard Review*, 1, No. 4, 1963, pp. 33-37.
68. Leary, T., G. H. Litwin and R. Metzner, "Reactions to Psilocybin Administered in a Supportive Environment," *J. Nerv. Ment. Dis.*, 137, 1963, pp. 561-573.
69. Levine, J., and A. M. Ludwig, "The LSD Controversy," *Comprehensive Psychiatry*, 3, 1964, pp. 314-321.
70. *Literary Digest*, 68, January 1, 1921, p. 34.
71. Ludwig, A. M., and J. Levine, "Patterns of Hallucinogenic Drug Abuse," *J. A. M. A.*, 191, 1965, pp. 104-108.

72. Lumholtz, C., "Symbolism of the Huichol Indians, Memoirs," *Amer. Museum of Natural History*, Vol. 3, Pt. 1, 1900, pp. 1-228.
73. MacLean, J. R., et al., "The Use of LSD-25 in the Treatment of Alcoholism and Other Psychiatric Problems," *Quart. J. Stud. Alcohol*, 22, 1961, pp. 34-45.
74. Malouf, C., "Gosiute Peyotism," *Amer. Anthropologist*, 44, 1942, pp. 93-103.
75. Marcovitz, E., "Marihuana Problems," *J. A. M. A.*, 129, 1945, p. 378.
76. Marcovitz, E., and H. J. Myers, "The Marihuana Addict in the Army," *War Medicine*, 6, 1945, pp. 382-391.
77. Maurer, D. W., and V. H. Vogel, *Narcotics and Narcotics Addiction*, Charles C. Thomas, Springfield, Ill., 1962.
78. Mayer-Gross, W., E. Slater, and M. Roth, *Clinical Psychiatry*, Cassell and Co., London, 1954.
79. *Mayor's Committee on Marihuana, New York City*, Cattell Press, Lancaster, Pa., 1944.
80. McGlothlin, W. H., S. Cohen, and M. S. McGlothlin, "Short-Term Effects of LSD on Anxiety, Attitudes, and Performance," *J. Nerv. Ment. Dis.*, 139, 1964, pp. 266-273.
81. Mead, Margaret, *The Changing Culture of an Indian Tribe*, Columbia University Press, New York, 1932.
82. Mellen, C., "Reflections of a Peyote Eater," *The Harvard Review*, 1, No. 4, 1963, pp. 63-67.
83. Michaux, H., *Light Through Darkness*, trans. by H. Chevalier, The Orion Press, New York, 1963.
84. Mitchell, S. W., "The Effects of Anahalonium Lewinii (the Mescal Button)," *British Med. J.*, Vol. 2, 1896, p. 1625.
85. Mogar, R. E., and C. Savage, "Personality Change Associated with Psychedelic (LSD) Therapy: A Preliminary Report," *Psychotherapy: Theory, Research, and Practice*, 1, 1964, pp. 154-162.
86. Murphy, H. B. M., "The Cannabis Habit: A Review of Recent Psychiatric Literature," *Bull. on Narcotics*, 15, No. 1, 1963, pp. 15-23.
87. Newberne, R. E. L. and C. H. Burke, *Peyote: An Abridged Compilation from the Files of the Bureau of Indian Affairs*, Haskell Inst., Lawrence, Kan., 1925.
88. Opler, M. E., "The Influence of Aboriginal Pattern and White Contact on a Recently Introduced Ceremony, the Mescalero Peyote Rite," *J. of Amer. Folk-Lore*, 49, 1936, pp. 143-166.
89. Opler, M. K., "The Character and History of the Southern Ute Peyote Rite," *Amer. Anthropologist*, 57, 1940, pp. 463-478.
90. Osmond, H., "Review of Clinical Effects of Psychotomimetic Agents," *Ann. New York Acad. Sci.*, (S. Kety, et al., eds.) 66, 1957, pp. 418-434.
91. Petrullo, V., *The Diabolic Root: A Study of Peyotism, the New Indian Religion Among the Delawares*, Univ. of Penn. Press, Philadelphia, 1934.
92. Radin, P., *Crashing Thunder: The Autobiography of a Winnebago Indian*, Appleton, New York, 1926.
93. Rinkel, M., *Lysergic Acid Diethylamide and Mescaline in Experimental Psychiatry*, L. Cholden, (ed.), Grune and Stratton, New York, 1956.
94. Safford, W. E., "Peyote, the Narcotic Mescal Button of the Indians," *J. A. M. A.*, 77, 1921, pp. 1278-1279.
95. Sanford, N., in *Utopias, the Use and Users of LSD-25*, Atherton, New York, 1964.
96. Savage, C., J. Terrill and D. D. Jackson, "LSD, Transcendence and the New Beginning," *J. Nerv. Ment. Dis.*, 135, 1962, pp. 425-439.
97. Schultes, R. E., "Hallucinogenic Plants of the New World," *The Harvard Review*, 1, No. 4, 1963, pp. 18-32.
98. Shelton, J., "LSD: Notes on the Psychotherapeutic Use," *Mind, Psychiat. in Gen. Practice*, 1, 1963, pp. 339-342.
99. Sherwood, J. N., M. J. Stolaroff and W. W. Harman, "The Psychedelic Experience - A New Concept in Psychotherapy," *J. Neuropsychiat.*, 4, 1962, pp. 69-80.

100. Shonle, Ruth, "Peyote, the Giver of Visions," *Amer. Anthropologist*, 27, 1925, pp. 53-75.
101. Siler, J. F., et al., "Marihuana Smoking in Panama," *The Military Surgeon*, 73, 1933, pp. 269-280.
102. Skinner, A., "Societies of the Iowa, Kansas, and Ponca Indians," *Anthropological Papers, Amer. Museum of Natural History*, 11, 1915, pp. 679-740.
103. Slotkin, J. S., "Menomini Peyotism, a Study of Individual Variation in a Primary Group with a Homogenous Culture," *Transactions of the Amer. Philosophical Assoc.*, 42, No. 4, 1952.
104. ———, *The Peyote Religion*, Free Press, Glencoe, Ill., 1956.
105. ———, "The Peyote Way," *Tomorrow, Quarterly Review of Psychical Research*, 4, 1956, pp. 64-70.
106. Smith, H., "Do Drugs Have Religious Import?" *J. Philosophy*, 61, 1964, pp. 517-530.
107. Smith, M. G., "Ethnology; a Negro Peyote Cult," *J. Washington, Acad. of Sci.*, 24, 1934, pp. 448-453.
108. Spindler, G., "Personality of Peyotism in Menomini Indian Acculturation," *Psychiat.*, 15, 1952, pp. 151-159.
109. ———, *Sociocultural and Psychological Processes in Menomini Acculturation*, Univ. of Calif., Publications in Culture and Society, No. 5, 1955.
110. Spindler, Louise, *Women and Culture Change: A Case Study of the Menomini Women*, Unpublished Ph.D. dissertation, Stanford Univ., 1956.
111. Stewart, O. C., "Peyote and Colorado's Inquisition Law," *Colorado Quarterly*, 5, 1956, pp. 79-90.
112. ———, *Washo-Northern Paiute Peyotism: A Study in Acculturation*, Univ. of Calif. Press, Berkeley, 1944.
113. "Subjective After-Effects of Psychedelic Experiences: A Summary of Four Recent Questionnaire Studies," *Psychedelic Rev.*, 1, 1963, pp. 18-26.
114. Supreme Court of the State of California, *People vs. Jack Woody et al.*, August 24, 1964.
115. Taylor, N., *Flight from Reality*, Duell, Sloan and Pearce, New York, 1949.
116. "Button, Button . . ." *Time*, 57, June 18, 1951, pp. 82-83.
117. U. S. Congress, *Hearings Before a Subcommittee of the Committee on Indian Affairs, House of Representatives, 78th Congress, 1944, Part 4*, U. S. Government Printing Office, 1945.
118. U. S. Congress, *Senate Committee on Indian Affairs, 34, 1929*, pp. 18217-18320.
119. Walton, R. P., *Marihuana, America's New Drug Problem*, Lippincott, New York, 1938.
120. ———, "Marihuana Problems," *J. A. M. A.*, 128, 1945, p. 383.
121. *White House Conference on Narcotic and Drug Abuse*, U. S. Government Printing Office, Washington, 1963.
122. Williams, E. G., et al., "Studies on Marihuana and Pyrahexyl Compound," *Public Health Reports*, 61, 1946, pp. 1059-1083.

This article was first issued as a mimeographed reprint P-2937 by the RAND Corporation. A version of the paper was read at the "Second Conference on the Use of LSD in Psychotherapy" in Amityville, Long Island, N. Y., May 8-10, 1965."

AYAHUASCA DRINKERS AMONG THE CHAMA INDIANS OF NORTHEAST PERU

HEINZ KUSEL

SOME TIME AGO I read an article describing the experience of consuming peyote, a cactus, with Indians of South Dakota. I could not help being reminded of the *ayahuasca* drinkers of northeast Peru. I lived for seven years traveling and trading in the Upper Amazon region and often heard stories about the effect of the drug. Once on a long canoe trip down the river my Indian companion had chanted the song of the "Goddess of Ayahuasca." *Ayahuasca*, a Quechua word meaning vine of death, is the collective name for various climbing tropical lianas* and also designates the tea prepared from the leaves of the vine, either by itself or in combination with other leaves.

Indians and low-class mestizos alike visit the *ayahuasquero* or witchdoctor when they are ailing, or think they need a general check-up, or want to make an important decision, or simply because they feel like it. Among the scattered halfcastes and natives of the swamps and rain-forests of the Ucayali region the *ayahuasca* cult plays a significant role in their religious medical practices and provides them with a good deal of entertainment.

Repeatedly I heard how in a vision induced by drinking the tea prepared from the liana the patient had perceived the specific plant needed for his cure, had later searched and found it in the jungle and had subsequently recovered. To the enigmatic mind of the Indian, *ayahuasca* opens the gate to the healing properties of the forces of nature at whose mercy he lives. A recurrent theme, whenever the natives refer to the results of the drug, is the vision of the procession of plants, with garlic, the "king" of the good plants, leading the way. Garlic, tobacco, quinine, and *ojé*,† (a tree

latex now processed in Iquitos and exported to a pharmaceutical firm in New York for use in a remedy against hookworm), are at the head of a long line of friendly, elf-like plants which in *ayahuasca* visions bow to man, offering their services.

The strange aspect of the veneration of garlic is that it does not even grow in the jungle. Garlic and dogs are the main products of individual barter between Quechua highland Indians and those people with which they apparently have no ethnic and hardly any linguistic bonds. The lowland Indians live under the jagged mountain-ranges of the eastern Andes. Perspiring couples, dressed in heavy woolen homespun garments, descend from their cold heights into the dark hot valleys which they fear, carrying loads of garlic on their backs and driving herds of small thin dogs before them to exchange for ginger roots and other medicinal plants of the forest. Dogs are always in demand for hunting because they fall prey so easily to ant-eaters, panthers and snakes. And garlic, in the common belief of the people, helps protect them from the most frequent plagues of the jungle-dweller, the amoebas, parasites and parasitic worms. Garlic also keeps poisonous snakes away, when the juice is rubbed on feet and legs; and a section of a clove of garlic when kept in the pocket is believed to be potent enough to protect the bearer against a "light" love-charm. Such a charm, referred to as *brebaje*, is prepared with relative ease by adding a trace of the female cyclic affliction to an innocent refreshment. A more elaborate charm used by the male, called *pusanga*, is an expensive oil obtained from a certain part of a porpoise, by a qualified individual observing strict rules of procedure, fasting, and solitude. A few drops of this essence applied to the man's hands before dancing are said to have an automatic effect on the desired partner. Aside from these there are many other more or less elaborate charms also referred to as *pusanga*.

The half-civilized Chama Indians, sturdy fellows, who today specialize in drawing mahogany and cedar logs for the sawmills in Iquitos, undergo a "purge" of *ayahuasca* before they enter the flooded areas of forest to float out the logs and assemble them into tremendous rafts. For a cure of that nature they prepare themselves by a prolonged diet, avoiding meat, salt, alcohol, and sugar.

Aside from the main use of the drug for curing or keeping the consumer in good general condition *ayahuasca* will, according to its users, induce clairvoyance and may, for example, solve a theft or prophesy the success or failure of a given enterprise. A man might be planning a trip to a certain river where he knows of a good place to tap rubber, but to be sure of good results he will consult *ayahuasca* first. After that, more than likely he will

*Various species of *Banisteriopsis*, especially *B. Caapi*.

†*Ficus helmiathogoga*

abandon the enterprise altogether and set off in another direction to pan gold, hunt peccary, or do something else.

The drug also provides escape and entertainment, as a cerebral way of projecting free, custom-made, technicolor movies to all the devotees of the herb, wherever they establish their temporary homes in the great wastes of shifting riverbanks, blindingly hot beaches, islands, and hidden clearings of the Upper Amazon.

Squatting on their heels on the high riverbanks at dusk, to escape the view of the jungle-wall towering above their huts, they rest their eyes on the great expanse of water. Or they enjoy the breeze and converse in low tones at high noon lying under the palm-leaf roofs shading their rafts. The balsa rafts seem nailed to the middle of the stream which creeps tediously past the far-away shorelines, imperceptibly leaving behind turn after turn.

In these unhurried hours and days I arrived at an insight into the natives' fantastic beliefs and images, the richness of which is equalled only by the growth of the surrounding vegetation. Their superstitions, ideas and images freely cross and recross the borderline of reality in strangely patterned ways. Their stories have one thing in common: man, plant, and animal are one, forever woven into an inextricable pattern of cause and effect. Later I found that *ayahuasca* visions are the fabrics that illustrate endless combinations of this pattern. Man, plant, and animal also passively undergo the irradiations of each other — irradiations of powers that to us are mostly non-existent. Somehow, sometimes, they even acquire each other's characteristics.

Once, drifting in a canoe, the Campa Indian with me disturbed the silence by imitating the voice of the cotomono, a copper-colored monkey. A cotomono from the shore answered him. A third joined in. After a while the whole shoreline seemed to come alive with cotomonos. The natives use this ability to imitate voices to such a degree that hunting takes on the character of treacherous assassination.

Though hardly in the way of an equivalent, the animal world "puts out" a bird that I heard one night, on the Pachitea river. It filled the darkness with a descending scale of glass-clear notes. Quite likely it is a beautiful scale, but nevertheless it resembles the hysterical laughter of an insane woman. It shocked me; I felt upset, mocked, laughed at.

The transformation of the *isula* is a good example of the fusing of the zoological and the botanical worlds. A hateful inch-long ant, whose bite is very painful and causes fever, the *isula* dies upright, when its time comes, clinging to a tree, and out of its

decaying body grows the indispensable vine used in the construction of huts, known as "támishe."

Although man is exposed to the powers of animals, plants and fellowmen, he can, through knowledge, cunning and fasting, counteract their powers or even turn them to his use. This belief is at the base of a vast body of hunting and fishing charms which the Chamas call *piri-piri*. A Chama who wants to obtain a *piri-piri* to catch a huge lake-fish called *paiche*, which provides his main staple food, must, before breakfast, on an empty stomach, harpoon a porpoise and deposit it on the black humus beneath the trees. From then on he must abstain from fat, salt, and everything sweet, and live without seeing another soul, till through the decayed body of the porpoise sprout a variety of tender plants. Out of these he prepares a small quantity of extract. A few drops of it on his body will irresistibly "call" the *paiche* into the reach of his harpoon.

Everything "calls" in the jungle. Once a Campa Indian in my boat, when we were drifting far from the shore, was "called" by *ayahuasca*, followed the "call," and later emerged from the forest with a sampling of the fairly rare liana that today is cultivated by the *ayahuasquero* in secret spots. I myself certainly did not hear the call.

If this jungle life in its irrational mutual dependency forms a picture of general confusion, *ayahuasca* is the magic mirror that reflects this confusion as something beautiful and attractive. For whomever I listened to, all manifested the enjoyment of a wondrous spectacle that was pleasing to the senses. If fearsome visions occurred, they said that the *ayahuasquero* could easily dispel them by shaking a dry twig near the ear of the affected drinker, or by blowing the smoke of a cigarette on the crown of his head. The aesthetic climax of the spectacle was, they claimed, the vision of the goddess with concealed eyes (*la diosa con los ojos vendados*), who dwelt inside the twining tropical vine.

Many times I listened to these tales, but it never crossed my mind to try the liana myself. It belonged definitely to the low-class Indian lore, to something sordid, outside of the law, something publicly frowned upon like the binding-up of the heads that the Chamas practice on their babies, or like burying one twin alive as they also do, or so many other equally fantastic or ghastly things.

In 1949 I had my headquarters in a white-washed brick house in Pucallpa overlooking a wide curve of the Ucayali. Pucallpa at that time was a village of about 200 homes, a Catholic church, an American Protestant mission, a Masonic temple and two primitive hotels. The place had gained some importance by being at the end

of the only road, precariously connecting Lima and the Pacific with a navigable river of the Amazon system. It had also an airport which could be used when the ground was dry. After the war and the falling of prices for rubber, skins and rotenone, the importance of the road decreased, and Pucallpa fell back to the stagnation of a Peruvian jungle settlement.

At that time I realized that my days in the jungle were coming to an end and in spite of being somewhat sceptical about the possible effects of the drug, decided to try it.

I drank the bitter salty extract of the vine three times. It seemed too much trouble to look for a venerated great *ayahuasquero* like Juan Inuma, who lived up the river near Masisea. There were a number of less widely-esteemed fellows in Pucallpa, such as Nolorbe, who was recommended to me as the most reliable of the witchdoctors in the village. His hut was the last upstream in the long row of buildings above the steep shore of Pucallpa. It was there that I found myself sitting on an empty gasoline crate one night, while other people squatted on the floor. I drank the required dose — about a quart — and nothing happened. The only noticeable effect was an increased auditory sensitivity, which is the reason why the drug is consumed in secluded places at night. A neighborhood rooster crowed recklessly which upset me considerably for it seemed to happen right in my head. The people in the hut were disturbed also for they sighed and shifted their positions uneasily. Nolorbe blamed the ineffectiveness of the drug on the fact that it had not been freshly prepared.

Another evening the guide who carried my blanket led me to a hut far outside the limits of the village. The hut, a typical structure of a floor on stilts without walls, covered by a thatched roof, belonged to Saldaña, a *mestizo* I did not particularly like, who had many patients in the village. I lay down on the raised floor of beaten palmbark overlooking the clearing, and Saldaña handed me a bottle of *ayahuasca*. I started to drink and heard him singing behind a partition where he was tending his patients. I listened carefully to the startling song that is always sung in Quechua, the language of the highland Indians which only old people in the Ucayali region speak. The song starts with a shrill musical question and continues with a series of answers, intermixed with hissing sounds and syncopated with guttural noises produced by the tongue against the palate. I drank the whole dose Saldaña had prepared for me and felt slightly dizzy and nauseated. After a while I climbed down from the raised floor, using the ladder, made as usual by hacking footholes into an upright log. The clearing and surrounding jungle looked as though covered with white ashes in the strong

moonlight. From the hut behind me I heard the sound of voices speaking monotonously. I heard Saldaña intermittently singing the song or administering his cures.

One of the procedures used to relieve a pain is actually to suck the pain out of the hurting member. When this has been repeated often enough, the pain is supposed to be located in the doctor's mouth and removed from there by spitting. Again my stimulated hearing reported those awful noises so intensely that at times they were hard to endure.

The next day Saldaña attributed this failure to the fact that I had a slight cold. I was more sceptical than ever. After all, if unlike those people I was not able to hear the call of the plant or to walk noiselessly through the jungle, maybe I lacked also the required acuteness of senses to meet the iridescent goddess.

I am glad that I went a third time. I made another appointment with Nolorbe for a Saturday night. I walked out to his place at the edge of the forest at about 10 P.M. I realized that his one-room house that stood in darkness and silence was crowded and waited outside till he emerged. I told him that I would rather not join the crowd and he obligingly showed me a good-sized canoe pulled up for repairs and resting about twenty feet from the cane wall of his shack towards the edge of the jungle.

I wrapped myself in a blanket and lay down comfortably, my shoulders against the cedar walls of the dugout, my head resting on the slanting stern. I felt relaxed and full of expectation. Nolorbe had appeared eager and confident. A small, barefooted Indian, with something queer and slightly funny about his face, he showed a nervousness which did not go with his sturdy native build. He seemed to be never quite present, as if continuously distracted by too frequent encounters with his vegetable gods and devils. His eyes were not steady but pulled in different directions. While somewhat fearful, there was something very happy about this man, as if a hidden gaiety were buried under his worried features. He believed himself smart and powerful, he lived a glorious life, even if sometimes he seemed to go to pieces in his effort to walk back and forth professionally between two equally puzzling worlds. I remembered seeing him once in the *Comisaría* in conflict with one of them, accused again of leading a disorderly life and practicing quackery. He was standing in his formerly green trousers, before a wooden table and the Peruvian flag, answering the rude Guardia Civil with a humble smile, his eyes going apologetically in all directions.

He soon appeared with a gourdful of liquid he had carefully prepared by stewing for hours the leaves of the vine with those of

another plant, whose name possibly was his secret. He squatted at the canoe and whispered, his eyes going sideways: "Gringo, today you will experience the real thing, I will serve you well, we will have the true intoxication, you will be satisfied, wait and see" . . . And he left me alone. After a while a girl approached me from the hut and asked for a cigarette. She lighted it, inhaled, and for a moment I saw her wide face surrounded by hard black hair; then she walked noiselessly back into the hut. A *tu-ayo* bird began to call repeatedly, high above my face. The whistling and melodious sound at the end of his call seemed to touch me like a whiplash. A truck loaded with cedarboards left the village, and on the distant highway accelerated madly and shifted gears. By that time I knew the drug was working in me, felt fine and heard Nolorbe whispering near my ear again: "Do you want more? Shall I give you more? Do you want to see the goddess well?" And again I drank the full gourd of cool, bitter liquid. I cannot say how often Nolorbe was present, whispering and drinking with me, singing the song near my ear and far away, treating his patients and making those awful primitive noises that I despised. There was another sound that upset me more than anything, like something round falling into a deep well, a mysterious, slippery and indecent sound. (Much later I found out that it was produced by the normally innocuous action of Nolorbe ladling water out of an old oil barrel by means of a small gourd.) I yawned through what seemed to be an interminable night, till the muscles of my face were strained; sometimes I yawned so hard that it seemed to me as loud as the roaring of the sea on a rocky coast. Things got so gay, absorbing and beautiful, that I had to laugh foolishly. The laughter came out of my insides of its own accord and shook me absurdly. At the same time I cried, and the tears that were running down my face were annoying, but they kept running madly, and no matter how often I wiped my cheeks, I could not dry them.

The first visual experience was like fireworks. Then a continuously creating power produced a wealth of simple and elaborate flat patterns in color. There were patterns that consisted of twining repeats, and others geometrically organized with rectangles or squares that were like Maya designs or those decorations which the Chamas paint on their thin, ringing pottery.

The visions were in constant flux. First intermittently, then successively, the flat patterns gave way to deep-brown, purple or green depths, like dimly lighted caves in which the walls were too far away to be perceived. At times snake-like stems of plants were growing profusely in the depths, at others these were covered with arrangements of myriads of lights that like dewdrops or gems

adorned them. Now and then brilliant light illuminated the scene as though by photographic flash, showing wide landscapes with trees placed at regular intervals or just empty plains. A big ship with many flags appeared in one of these flashes, a merry-go-round with people dressed in highly colored garments in another. The song of Nolorbe in the background seemed to physically touch a brain center, and each of his hissing guttural syncopations hurt and started new centers of hallucinations which kept on moving and changing to the rhythm of his chant. At a certain point I felt, helplessly, that Nolorbe and his song could do anything with me. There was one note in his song, that came back again and again, which made me slide deeper, whenever it appeared, deeper and deeper into a place where I might lose consciousness. If, to reassure myself, I opened my eyes, I saw the dark wall of the jungle covered with jewels as if a net of lights had been thrown over it. Upon closing my eyes again, I could renew the procession of slick, well-lighted images.

There were two very definite attractions; I enjoyed the unreality of a created world. The images were not casual, accidental or imperfect, but fully organized to the last detail of highly complex, consistent, yet forever changing designs. They were harmonized in color and had a slick, sensuous, polished finish. The other attraction of which I was very conscious at the time was an inexplicable sensation of intimacy with the visions. They were mine and concerned only me. I remembered an Indian telling me that whenever he drank *ayahuasca*, he had such beautiful visions that he used to put his hands over his eyes for fear somebody might steal them. I felt the same way.

The color scheme became a harmony of dark browns and greens. Naked dancers appeared turning slowly in spiral movements. Spots of brassy lights played on their bodies which gave them the texture of polished stones. Their faces were inclined and hidden in deep shadows. Their coming into existence in the center of the vision coincided with the rhythm of Nolorbe's song, and they advanced forward and to the sides, turning slowly. I longed to see their faces. At last the whole field of vision was taken up by a single dancer with inclined face covered by a raised arm. As my desire to see the face became unendurable, it appeared suddenly in full close-up with closed eyes. I know that when the extraordinary face opened them, I experienced a satisfaction of a kind I had never known. It was the visual solution of a personal riddle.

I got up and walked away without disturbing Nolorbe. When I arrived home I was still subject to uncontrollable fits of yawning and laughter. I sat down before my house. I remember that a drop

of dew fell from the tin roof, and its impact was so noisy that it made me shudder. I looked at my watch and realized it was not yet midnight. The next day and for quite some time I felt unusually well.

Three years later, in a letter from Pucallpa, I heard that Nolorbe had been accused of "bewitching a man into insanity" and had been jailed in Iquitos.

THE BOOK OF THE DEAD

The Hieroglyphic Transcript of the Papyrus of ANI, the Translation into English and An Introduction by E. A. WALLIS BUDGE, Late Keeper of the Egyptian and Assyrian Antiquities in The British Museum



THE BOOK OF THE DEAD



A record of the oldest rites of passage known to man, THE BOOK OF THE DEAD pre-dates Christianity by four or five thousand years. It contains the prayers, incantations and ceremonies intended to guide the souls of the "dead" through the underworld in order that they may be reborn in spirit and join the company of the gods. \$12.50

Introductory Offer: \$9.95

Please send your orders to UNIVERSITY BOOKS, Box 171, New Hyde Park, N. Y. (pre-paid, no charge for postage).

DARU AND BHANG

Cultural Factors in the Choice of Intoxicant

G. M. CARSTAIRS, M.D.¹

1. THE PROBLEM

THROUGHOUT THE YEAR 1951 the writer of this article was engaged in a field study which involved his living in intimate daily contact with the inhabitants of a large village² in the State of Rajasthan, in northern India. In the course of that year, he got to know this community fairly well; and he was struck by one unexpected aspect of the caste system which permeates Hindu society. This was the violent antithesis shown in the community's attitudes toward the two most prevalent forms of intoxication—that caused by drinking *daru*, a potent distilled alcohol derived from the flowers of the mahwa tree (*Bassia latifundia*), and that due to *bhanga*, which is the local name for an infusion of the leaves and stems of Indian hemp (*Cannabis indica*) which is readily cultivable in this region. Each had its partisans, and each decried the other faction.

It may be noted, in passing, that these were not the only forms of *nasha*, or intoxication, recognized. Villagers frequently spoke of the *nasha* caused by drinking cups of sickly-sweet tea infused in milk. Some went so far as to blame the breakdown of traditional piety on this modern indulgence in "English tea." They would also describe the *nasha* induced by a few puffs from a communally shared cigarette, and of that brought about by an unaccustomed feast of meat. Instances were cited of men who had become addicted to chewing opium; but in recent years this has become so prohibitively expensive as to have dropped out of the picture. It

¹Psychiatrist, Medical Research Council Unit for Research in Occupational Adaptation, Maudsley Hospital, London. Received for publication: December 21, 1953.

²The village had 2,400 inhabitants, of whom 93 were Rajputs and 85 Brahmins.

was remembered by the warrior-caste, the Rajputs, one of whom explained that in the old days they would take opium before a battle in order to steady their nerves and to inhibit untimely bowel movements. Another Rajput, of humbler rank, put it more prosaically: "Yes, they'd issue a lump of opium to every man in those days, and glad to get it.—Might as well enjoy it now—may not be here tomorrow."

Here in Rajasthan the Rajput caste held a position of social supremacy. It is they who are the *Rajahs*, the rulers. For centuries their semifeudal authority has governed the State, which was divided into a number of kingdoms, each with a hierarchy of subordinate rulers, down to the village *Thakur*, who is a Rajput squire of a few acres. They traditionally justified their wealth and prestige by their willingness to fight in defense of their land and their religion. On the smallest scale, it was to the Thakur and his kinsmen that the ordinary villagers turned for protection against marauding bands, especially in times of famine or of war.

As fighting men, the Rajputs had certain special prerogatives, notably the right to eat meat and drink alcohol. These privileges, as well as their forefathers' bravery in battle, are commemorated in a rich store of poetry and song. The writer recalls many evenings spent listening to minstrels reciting epics of war and of the hunting field, while drummers played and strident women's voices sang with the refrain: *Pi lo, pi lo manna Raja!* (Drink on, drink on, oh King!) His Rajput hosts were careful to point out on such occasions that daru should be taken with circumspection, only in the proper measure (*niyam se*) and with due formality. Yet for all their protestations, "Oaths are but straw to the fire i' the blood," and a typical Rajput party tends to become boisterous, bawdy and unbridled.

Besides the Rajputs, only the *Sudras* (the artisan castes) and the Untouchables—and not all of them—are accustomed to take meat and alcohol. These lower orders also observe a certain formality in their drinking. Usually they go in a group to the village grogshop, and there the daru is passed from hand to hand in a small brass bowl. Each man, before taking his first drink, lets fall a drop or two and says, "*Fai Mataji!*"—invoking the demon-goddess Kali in her local embodiment. In so doing, they fortify themselves with the knowledge that that great goddess, mother and destroyer in one, relishes a diet of blood and alcohol.

In striking contrast, the members of the other top caste-group in the village, the Brahmins, unequivocally denounce the use of daru. It is, they say, utterly inimical to the religious life—and in matters of religion the Brahmins speak with authority. Certainly

no Hindu who has tasted or even touched daru will enter one of his temples (not even a goddess temple) without first having a purificatory bath and change of clothes. The first requirement of those who begin to devote themselves seriously to religion is always: "Abhor meat and wine." Priests and holy men insist that a *darulia* (an alcoholic) is beyond the pale of possible salvation. And yet again and again the writer was able to see respectable Brahmins and holy *Saddhus* who were benignly and conspicuously fuddled with bhang. To his eye, they were drunk as lords—drunk as Rajputs—and yet they would have been mortally offended if the comparison had been drawn, because this form of intoxication they believed to be not only no disgrace, but actually an enhancement of the spiritual life.

It might have been thought that if one form of intoxicant were condemned, so would be the other. In time, however, the writer was able to learn not only the subjective characteristics which distinguish these two states, but also the important cultural values which are associated with their use, and a solution to the riddle began to emerge.

2. DIFFERENT EFFECTS OF DARU AND Bhang INTOXICATION

The physiological and psychological effects of the ingestion of alcohol are sufficiently familiar to require no further elaboration. As Ravi Varma (1) has shown, the stages of inebriation have also been described in ancient Sanskrit texts. He quotes the pre-medieval writer Susruta as distinguishing three phases: first, elation and conviviality with increase in sexual desire; next, a progressive loss of sense of propriety with overactivity and failing coordination; and finally a comatose, dead-drunk state, "like a felled tree," in which, "though alive, one is as it were dead." As will be shown below, the Rajputs were vividly aware of the "release of sexual and aggressive impulses" which Horton (2) has shown to be the basic role of alcohol in every community which resorts to its use.

The effect of taking *Cannabis indica* in one or other of its preparations is less familiar to occidental readers; and yet it is an intoxicant which is second only to alcohol in the volume of its use, the variety of its recipes, and the profusion of its names.³ Descriptions of its effect show a number of discrepancies, which may

³These include: bhang, charas, ganja (India); kif (Algeria); takrouri (Tunisia); kabak (Turkey); hashish-el-kif (Middle East); djoma (Central Africa); dagga (South Africa); liamba (Brazil); grifa (Mexico); marihuana (South and North America). There are, however, many other names descriptive of particular sweetmeats, cakes, drinks, etc., containing the drug.

be attributed in part to the varying concentration of the drug in different preparations, and also to the fact that it is often taken in conjunction with other drugs. Thus Porot (3) reports that most North African cannabists are also alcoholics. In the Middle East it is used often in conjunction with an aphrodisiac.

When a Cannabis preparation is taken alone and in moderate strength (as is the case with the village bhang drinkers), Porot describes the following sequence of events: (a) A transient euphoria, a rich, lively, internal experience, in which ideas rush through the mind and there is an enormous feeling of superiority, of super-human clarity of insight. (b) Sensory hyperesthesia, and coenesthesias: sights and sounds become unusually vivid and meaningful. (c) Distortion of sense of time and space. (d) Loss of judgment. (e) Exaggeration of affects, both of sympathy and of antipathy. (f) The phase of excitement is succeeded by one of placid ecstasy, known to Moslems as *el kif*, or "blessed repose." The "will to act" becomes annihilated. (g) After some hours of the trancelike state, sleep supervenes.

As a Frenchman, Porot was interested in the cult of cannabism which was created by a circle of writers and painters in Paris during the 1840's: an intellectual vogue which has enriched medical literature with some vivid accounts of the subjective aspects of the intoxication. This reportage was facilitated by the fact that the condition does not interfere with self-awareness, so that the participants had the sensation of being onlookers at the same time as actors in the scene. As Théophile Gautier wrote (4): "Je voyais mes camarades à certains instants, mais défigurés, moitié hommes, moitié plantes, avec des airs pensifs d'ibis debout sur une patte d'autruche."

But Gautier, as Guilly (5) has pointed out in a recent essay on the "Club des Hachischins," was not altogether a reliable witness. His account was frankly embellished, designed to exaggerate the bizarre and the orgiastic elements of the situation; and in so doing he illustrates a finding of his contemporary, Baudelaire, who also was fascinated by the effects of the drug and carried his experiments to extreme lengths. Baudelaire (6) pointed out that Cannabis affected people differently according to their degree of intellectual refinement. He distinguished "spiritual" from merely material or brutish intoxication; and to this one can add that the quality of the intoxication can be influenced by the expectations with which the subject enters into it. For example, Tunisian addicts would smoke their *takroui* in a quiet room, scented and decorated with flowers and with erotic prints calculated to stimulate hallucinations proper to their self-induced anticipation of paradise.

Frivolous though his interest was, Gautier seems to have tasted enough of the drug to have experienced the state of lethargic ecstasy—in Baudelaire's words, "l'apothéose de l'Homme-Dieu"—which he described as follows: "Je ne sentais plus mon corps; les liens de la matière et de l'esprit étaient déliés; je me mouvais par ma seule volonté dans un milieu qui n'offrait pas de résistance... Rien de matériel ne se mêlait à cette extase; aucun désir terrestre n'en altérerait la pureté..."

There have been other European experimenters who have described the effects of cannabism but none who have been outspoken in its praise. Walter de la Mare (7) wrote that, "Like opium, it induces an extravagant sense of isolation," and he went on to quote the experience of his friend Redwood Anderson, who reported on the effect of taking small doses of the drug. He was able to describe the euphoria, the rush of ideas and the intense subjective feelings of awareness and heightened significance of all his perceptions; but he was not seduced by this near-ecstasy, rather struggling to resist the weakening of voluntary control and to repudiate these illusions of godlike intuition.

In this he was at one with Baudelaire, who indulged very profoundly in this as in other forms of intoxication and, in the end, like a true Westerner, protested against any drug which would hamper the exercise of free, individual assertion and volition. He wrote: "Je ne comprends pas pourquoi l'homme rationnel et spirituel se sert de moyens artificiels pour arriver à la béatitude poétique, puisque l'enthousiasme et la volonté suffisent pour l'élever à une existence supra-naturelle. Les grands poètes, les philosophes, les prophètes sont des êtres qui, par le pur et libre exercice de leur volonté, parviennent à un état où ils sont à la fois cause et effet, sujet et objet, magnétiseur et somnambule."

It is necessary to refer at length to these subjective experiences because, although to the superficial observer the behavior of the bhang drinker might seem not unlike that of an alcoholic (except that the progress of intoxication is at first delayed, for up to 90 minutes, and then proceeds by rapid stages to a profound stupor), the subject's inner experiences are very different. To quote an early medical investigator, Hesnard (8): "Ses symptômes en sont bien plus riches pour celui qui l'éprouve que pour l'observateur." This was convincingly demonstrated to the present writer when he was prevailed upon to share in the Brahmin group's potations on two occasions. He experienced the time distortion, the tumbling rush of ideas, the intensified significance of sights, sounds and tastes and, more strongly than anything else, the feeling of existing on two planes at once. His body sat or lay in a state of

voluptuous indifference to its surroundings, while consciousness alternated between a timeless trancelike state and a painful struggle to keep awake, to keep on observing, and acting (in this case, to keep on writing down notes on his introspective experiences). It became clear to him, in retrospect, that throughout the intoxication his bias of personality, and perhaps his less conscious fears of surrendering to a dreamlike state, resisted the somatic pull of the drug; and yet he was able to enter sufficiently into the fringe of the real ecstasy to quicken his future appreciation of what the experience meant to those who welcomed and valued it.

Hitherto, it will be noted, the state induced by bhang has been discussed in the terms of reference used by Western observers. The writer's own experience confirmed their clinical accounts, with emphasis on feelings of detachment, of extreme introspection, of the loss of volition coupled with a dreamlike impression of heightened reality. Moreover, the recognition of his own fear and repudiation of the state opened his eyes to two possibilities: (a) that other Western observers might have shared his own reluctance, if not inability, fully to submit to this intoxication; and (b) that to Hindus, with their different cultural heritage and personality bias, the experience might represent something different, at once less frightening and more congenial. It was with this in mind that he reviewed his notes of some hundreds of conversations with villagers, in order to consider what were their associations to daru and to bhang respectively.

It should be pointed out that this discussion concerns the use rather than the abuse of these intoxicants. There were many habitual drinkers of both, and instances of alcoholic delirium were described by several Rajputs, though not witnessed by the writer. The only Brahmin who could be called an addict to bhang in the strict sense was also an opium eater, and at 75 was one of the oldest men in the village. It is a vexed question as to whether cannabism, when carried to extremes, incites to crimes of violence, as Wolff (9), Dhunjibhoy (10) and Porot (3) assert, or whether, as Bromberg and Rodgers (11) and Wallace (12) have shown in careful statistical studies, this association is not supported by the facts. The present writer's study of the literature supports the view that crime (even the berserk attacks on the Crusaders by the hashish-inspired followers of the Mohammedan Old Man of the Mountains, from which the word assassin is said to be derived) is, like the voluptuous daydreams of the Tunisians, merely one of the ends which cannabism can be made to serve during its brief phase of excitement, and not a necessary consequence of taking the drug. In this village, at any rate, there were no instances of crimes attributable to the drink-

ing of bhang, nor was there any evidence to support the suggestion of Dhunjibhoy, among others, that it gives rise to a characteristic psychosis. It remains open to proof whether such cases are not, as Mayer-Gross (13) maintains, simply schizophrenic illnesses occurring in a Cannabis-taking population.

3. VILLAGERS' ASSOCIATIONS TO DARU AND BHANG

In the following series of quotations from a number of villagers' conversations, it will be helpful to bear in mind that Rajputs are distinguished by the addition of the title *Singh* (lion) to their name; among the Brahmins, a common second name is *Lal* (red, the auspicious color). For the sake of clarity all Brahmin names have been transcribed to conform to this rule.

The first obvious difference to emerge is that while the Brahmins are unanimous in their detestation of daru, the Rajputs do not present a united front in its defense. "Some Rajputs," explained Himat Singh, "those who are worshippers of God, they do not eat meat or drink wine — that is the first thing for them to give up. Wine spoils men's mind: some swear and give abuse, which is inimical to holiness." Such Rajputs, however, are few and far between: "The rest, they eat, drink and remain *must*."⁴

Many Rajputs prided themselves on drinking with discrimination, a fixed measure every day. Thus Nahar Singh: "My father used to drink a fixed quantity of daru, from a small measure, every night. It was his *niyam*, his rule." A young man called Ragunath Singh was emphatic in asserting the warlike traditions of his caste, and their need for meat and drink: "Panthers and tigers don't eat grass — and that's what Rajputs are like, a carnivorous race." He also, however, stressed that liquor was a dangerous ally: "If you take it to excess it destroys your semen, the good stuff, the strength of your body — but taken in right measure it builds it up."

Gambhir Singh mentioned that his father, a former Inspector of Police, used to allow himself a generous measure every day: "It helped him in his work, made him fierce and bold, ready to beat people when that was needed."

This stress on restraint, and on small measures, soon tended to be forgotten in the course of an evening of Rajput hospitality, when glass after glass was filled and emptied at a draught. In his cups, Amar Singh used to boast of his ungovernable temper, of men he had killed in the heat of anger, of his sexual prowess with prostitutes. His friend Gordhan Singh chipped in with a description of a typical Rajput celebration: "They sit drinking heartily till they are

⁴*Must* describes the rage of an elephant which is in heat.

senseless, and then they talk loudly and make fools of themselves, and spill their food down the front of their shirts, and shout to the dancing girls; and some of them pass out altogether — oh, it's a fine sight to see, it's good fun."

The former Ruler of the village and of the surrounding principality expressed conflicting views on daru. On the one hand, he aspired to gain a "spiritual rise" through the practice of prayers and austerities, and this necessitated a strict rationing of his customary indulgence in alcohol. Quite often, however, something would happen to interrupt his abstemious intentions, and on such a day his eloquence in praise of wine was noticeably stimulated: "Red eyes are thought by us Rajputs to be very beautiful. They are the sign of lust. Those who have the good fortune to have red lines in the eyes, they are thought to be very lusty. Rajputs are very lusty, Sahib. It is because of their meat and drink: it makes them so that they have to have their lust, poor fellows." At this point he began to quote verses in praise of wine: "It makes the eyes red, it keeps the pleasure going between the pair, the husband and wife: how shall I praise you enough, oh twice-distilled!" And again: "In time of war, when the drum beats, only opium and daru drive out fear."

On another occasion, the Ruler quoted a ribald couplet to the effect that without meat all food is grass, and without daru even Ganges water has no virtue. But this blasphemy alarmed him into a momentary sobriety. He hastily repudiated the verse, but a few minutes later he was exuberantly describing the scene at a wealthy Rajput's wedding party: "They will be sitting drinking far into the night, with dancing girls entertaining them. They will call the dancing girl to sit on their lap, then they will get stirred and take her into a room and bar the doors; and the others will beat upon the door and say, 'Eh, Rao Sahib, we also want to see this girl.' Poor girl, where can she go, all doors are locked! Enjoy till morning, she must do what you want."

The Ruler's younger brother was emphatically not one of those Rajputs who renounced their pleasure in alcohol in the interests of religion: "Sahib, I am not interested in these things. These religious matters, usually one begins to be interested in them after the age of fifty."

And before then?

"Before then, Sahib, eat, drink and make merry."

Rajputs not infrequently referred to bhang, but never with strong feelings either of approval or condemnation. It is mentioned as a refreshment given to guests who arrive after a long journey. An elderly retainer called Anop Singh said: "We are not in the habit

of drinking bhang, though we'll take it if it comes our way. Sometimes holy men come, and they are great ones for bhang, so you have to join them if they invite you, and have some too." On one occasion the writer found a young Rajput landowner called Vijay Singh profoundly fuddled with a large dose of bhang which had been given to him, without his knowledge, in a spiced sweetmeat: "I didn't know I was eating bhang or I wouldn't have taken it — it's not a thing I like. It makes you very sleepy and turns your throat dry... I don't like it, it makes you quite useless, unable to do anything. Daru is not like that: you get drunk but you can still carry on."

The Brahmins, on the other hand, were quite unanimous in reviling daru and all those who indulged in it. They described it as foul, polluting, carnal, and destructive to that spark of Godhead which every man carries within him. As Shankar Lal put it: "The result of eating meat and drinking liquor is that you get filled with passion, rage — and then what happens? The spirit of God flies out from you."

The Ruler's own attempt to reconcile religious devotions with a measure of indulgence in alcohol was rejected with contumely by Mohan Lal, a scholarly teacher: "He is all wrong: he is a bogus lecher. Always busy with wine and women, how can he find his way along this stony and thorny path?"

In their references to the use of bhang, the Brahmins were matter-of-fact rather than lyrical. "It gives good *bhakti*," said Shankar Lal: "You get a very good *bhakti* with bhang." He went on to define *bhakti* as the sort of devotional act which consists in emptying the mind of all worldly distractions and thinking only of God. The "arrived" devotee is able to keep his thoughts from straying off onto trivial or lustful topics; in his impersonal trance he becomes oblivious to mundane concerns so that you "could hit him in the face with shoes a hundred times, and he would remain unmoved" (Mohan Lal).

Brahmin informants made many references to a nearby pilgrimage center presided over by a very influential priest. Both he and his predecessors were described, with admiration, as being mighty drinkers of bhang and heroic in the depth of their devotional trances. The chief object of worship at this place was an ancient phallic symbol of black stone, representing the God Shiva; and this God in turn was often cited as both a bhang drinker and a paragon of the contemplative life. It is by modeling themselves on his example that religious ascetics practice severe and prolonged austerities, training themselves to withdraw their entire attention from the distractions of the sensible world until they can exist for

hours in an oblivious, inward-looking state. The ultimate reward of this asceticism is that the Saddhu is enabled to divest himself of his body (which becomes imperishable, though apparently lifeless) and to pass directly into reunion with the spirit of the universe. (One is reminded on Baudelaire's "l'apothéose de l'Homme-Dieu.") Bhang is highly regarded as conducing toward this condition and is taken regularly by most saddhus. In the precincts of the great Shiva temple, the writer frequently encountered holy men, dressed in little more than a coating of sacred ash, who staggered about in the early stages of bhang intoxication. If he addressed them, they would reply only with an elusive smile or with an exclamation like "Hari, Hari, Hari!" — repeating one of the names of God. Ordinary village Brahmins, who did not aspire to such feats of asceticism, made a practice of devoting some minutes or hours every day to sitting in a state of abstraction and prayer, and in this exercise they found a modicum of bhang to be most helpful.

4. RELEVANT THEMES IN HINDU CULTURE PATTERN

Both the Rajput and the Brahmin castes, at least in this large village, belonged to the economically privileged section of the community. Their male members had all received at least enough education to make them literate in Hindi, and in an unsystematic way had been instructed in the fundamentals of their religion and made familiar with the main features of the Ramayana and Mahabharata epics which illustrate those teachings in a variety of dramatic episodes. Hinduism encompasses so wide a range of practical and philosophical beliefs, of myths and ritual ordinances, and contains so many contradictory elements, that one theologian, after 25 years of study, came to the conclusion that there were only two indispensable features in this religion: reverence of the Brahmin, and worship of the cow (14). These features are epitomized in the formal greetings exchanged by Rajput and Brahmin. The former salutes the priestly caste with, "I clasp your feet," and the latter replies, "May you live long and protect the Brahmins and the cows." In so doing, they acknowledge each other's caste in its respective status of spiritual and temporal primacy.

The fundamental orthodox Hindu beliefs, as Taylor (15) has pointed out in an analysis drawn from study of a community in an area contiguous with Rajasthan, stem from the concepts of *karma* (predestined lot), of the cycle of rebirth, and of *dharma* (right conduct), observance of which leads to promotion in one's next rebirth and ultimately to the goal of all human endeavor, which is *moksh*, or liberation from the cycle of reincarnation altogether. Socioeconomic relationships are accepted as inevitable, as is the

hierarchic structure of caste. Indeed, "the individual's security in this society comes from his acceptance of his insignificant part in a vast pre-ordained scheme: he has little anxiety, because he is not confronted with a variety of choice." Rajputs and Brahmins are alike in knowing that virtue consists in performing the duties appropriate to that station in life into which one is born, and in minimizing one's indulgence in sensual and emotional satisfactions of a private nature. Thus Nahar Singh, a Rajput renowned for his religious zeal, said: "Those of us who take religion seriously, but have still not wholly renounced the world, we can do it by taking care not to let our affections become too deeply engaged in things of lesser importance. We should do our work, fulfill all our duties, and be affectionate to our families — but all that should be on the surface of our daily lives. Our real souls, deep down, should not be involved in any of these emotional ties . . ."

Mohan Lal expressed similar views: "The religious man lives in the world, but apart. He is like a drop of water on a lotus leaf, which moves over its surface but is not absorbed." His caste-fellow Bhuri Lal described the ideal pattern of "nonattachment," leading in the end to release: "Moksh is obtained by purging the self of all carnal appetites and withdrawing from the illusions of this world. A wise man is cool-tempered." Immediately after this, he went on to talk of sexual morality. Sex, he said, should be strictly controlled. It should be regarded as a duty, and used only for the purpose of perpetuating one's male line. He himself had been afflicted with four daughters before his two sons were born, and then, "As soon as my second son was born, I gave up having sex. You say I look young? That's because I have practiced celibacy for years."

This exaltation of asceticism, of self-deprivation, of trying to eliminate one's sensual appetites, is a basic theme. Again and again in Hindu mythology one encounters heroic figures (by no means always virtuous ones) who practice austerities so severe and prolonged that their spiritual power becomes prodigious: the gods themselves beg them to desist and offer to grant anything they ask. Taylor has related this to the absoluteness of paternal authority in the home; the pattern is firmly laid down that one can achieve success and recognition only by self-abnegation and prostration before the all-powerful father figure. A student of Kardiner (16) might be tempted to carry the analogy still farther back, to the Hindu child's wholly indulgent experience at the suckling stage, during which he actually usurps his father's place, because parents are not supposed to sleep together until the child is weaned. In this context, the *tapasya* which constrains even the gods can be seen as a return to the infant's fantasied omnipotence.

The values discussed thus far are held in common by both castes, with the difference that the Brahmins, being at the pinnacle of the spiritual hierarchy, have a special obligation to lead a pious life. More than ordinary men, they must pay constant attention to the fulfilling of religious duties. Their lives are beset with recurring threats of defilement and their days are punctuated with acts of abasement. Among the many forms of self-denial to which they are accustomed are the avoidance of anger or any other unseemly expression of personal feelings; and abstinence from meat and alcohol is a prime essential. They are rewarded by being regarded, simply by virtue of their birth in this high caste, as already quasi-divine. Ordinary men address them as *Maharaj*, the greeting given to the gods. As one of them put it: "Even now, when people see a man is a Brahmin, they pay much respect in comparison to other castes. He is much more closely related to God."

In this region the Rajputs represent the temporal aristocracy, as the Brahmins do the spiritual. Their caste is one of warriors and landlords. Until the social reforms of 1948, their Rajahs exercised arbitrary and autocratic rule over the innumerable small principalities into which Rajasthan is divided. They owed allegiance in their turn to the Ruler of their State — in the case of this village, to the Maharana of Udaipur. By virtue of their role as warriors, the Rajputs were accorded certain privileged relaxations of the orthodox Hindu rules: in particular, those prohibiting the use of force, the taking of life, the eating of meat and drinking of wine. These all represent violations of basic canons of Hindu dharma, and so they are hedged about with restrictions and formalities in order to minimize their evil effects. Violence is a part of their lives, but they are taught to exercise forbearance, to rebuke an offender twice before chastising him. In warfare they obeyed a code of chivalry not unlike that of the medieval knights. Similarly, the meat of only a few animals is counted fit to eat, and then only of the male of the species; and hence, also, the emphasis on restriction and invariable "measure" in drinking daru.

The Rajputs find themselves in a curious position. Their social pre-eminence is due to their role as defenders of religion, and they are as conservative in belief as they are in politics; and yet their own cherished traditions emphasize their deviation from "right living" in the orthodox Hindu sense. The conflict is heightened by the circumstance that in their caste, even more than in all the others, patriarchal authority is stressed. As the writer has pointed out elsewhere (17), both sons and younger brothers in Rajput families have to learn to defer in utter subservience to their fathers and elder brothers. Whereas in the Brahmin caste this domestic

discipline is made tolerable by the fact that it is impersonal, simply a facet of a general obedience to propriety which the elders observe in their turn, among Rajputs it is different. There is a great difference between the status of the head of the family and that of his subordinates. For example, a younger son inherits an estate only one-twentieth the size of that which comes to the first-born. The head of a Rajput family is anything but an impersonal figure. Coached from infancy by a succession of sycophantic retainers, he has an inflated idea of his personal importance, coupled with an often well-founded suspicion that he is surrounded by rivals and enemies. The tensions which arise in such a setting explode from time to time in violent quarrels. Another corollary of the peculiar upbringing of the Rajputs is that they are taught to put great stress on individual bravery and ferocity in the face of danger. The test of real danger is all too seldom met with, but every young Rajput lives with the anxiety that he may not prove adequate to the occasion when it comes. As a result he tends to be boastful, touchy, and readily inclined to assuage his anxieties in the convivial relaxation of a drinking party.

5. DISCUSSION

In her much-quoted study of patterns of drinking in two South American villages, Bunzel (18) remarks, of such sociological appraisals in general: "It should be borne in mind that each group represents a different problem: it is necessary in each case to find out what role alcohol plays *in that culture*." She was able to demonstrate two widely differing ways of using alcohol. In Chamula there was little aggression or promiscuity or severity of discipline; there, heavy drinking was indulged in from childhood and was attended with no guilt. In Chichicastenango, on the other hand, she saw a strict paternal authority and an insistence on the repression of aggressive and sexual impulses, which found release in the course of occasional drinking sprees; and these were followed by feelings of severe guilt. The Rajput drinking pattern, obviously, has much in common with the latter.

A more general frame of reference has been given by Horton (2) in his survey of alcohol in primitive societies, which led to his drawing up three basic theorems: (a) The drinking of alcohol tends to be accompanied by release of sexual and aggressive impulses. (b) The strength of the drinking response in any society tends to vary directly with the level of anxiety in the society. (c) The strength of the drinking response tends to vary inversely with the strength of the counteranxiety elicited by painful experiences during and after drinking.

The first of these theorems is abundantly borne out by the behavior of Rajputs in their cups. It is clear also that the presence of socially approved prostitutes and lower-caste servants and dependants enables the carrying out of these impulses in a manner which excites no retribution, and so the third theorem operates in support of their drinking heavily. On the side of restraint is the knowledge that sensual indulgence is an offense against the Hindu code of asceticism; but this code does not weigh heavily on most Rajputs.

On Brahmins, on the other hand, the code weighs very heavily indeed, being associated with their fondest claims to superiority over their fellow men. A Brahmin who gets drunk will be outcasted, condemned to associate with the lowest ranks of society. Consequently the threat of this "counteranxiety" is sufficient to make the drinking of alcohol virtually impossible to Brahmins (at least in the village). There is no reason to suppose, however, that they, any more than the Rajputs, are devoid of anxiety. But the differences in emphasis on individual self-assertion (stressed by Rajput upbringing but constrained by their fiercely authoritarian disciplines) and on the unimportance of personal and sensual experiences (stressed in the Brahmin code) seem to imply that the anxieties of the Rajputs will be more acute while those of the Brahmins will be more diffuse and more readily sublimated in the religious exercises which play such a large part in their adult lives.

Another consideration is raised by Shaloo's (19) analysis of the way in which Jewish cultural values operate to minimize the incidence of alcoholism in their community. In his view, the Jews develop strong familial and communal ties and stress social conformity and conservatism in mores because they are aware of the critical and often hostile scrutiny of the Gentiles among whom they live. He concludes: "Such an analysis indicates that we are dealing with an 'isolated sacred society' as against a Gentile 'accessible secular society.'"

In our Indian example, the Brahmins represented a "sacred society" but not an isolated one. Far from being alien, they represent the ideal religious aspirations of the masses of ordinary Hindus, those who are obliged to "eat, drink and keep their passions alive," as Shankar Lal once put it. If the Brahmins are abstemious, it is not through an exaggerated fear of the censure of their fellows. On the contrary, their consciousness of their exalted state often makes them high-handed and inconsiderate in their dealings with those of lower caste; and moreover, they are not abstemious. If Horton's theorems hold good for alcoholism, must a new set be constructed to account for cannabism?

The answer which the present writer would suggest to the

problem posed at the outset of this paper would be on the following lines: There are alternative ways of dealing with sexual and aggressive impulses besides repressing them and then "blowing them off" in abreactive drinking bouts in which the superego is temporarily dissolved in alcohol. The way which the Brahmins have selected consists in a playing down of all interpersonal relationships in obedience to a common, impersonal set of rules of Right Behavior. Not only feelings but also appetities are played down, as impediments to the one supreme end of union with God. Significantly, this goal of sublimated effort is often described in terms appropriate to sexual ecstasy, as is the case with the communications of ascetics and mystics in other parts of the world. Whereas the Rajput in his drinking bout knows that he is taking a holiday from his sober concerns, the Brahmin thinks of his intoxication with bhang as a flight not from but toward a more profound contact with reality.

Westerners, like the Rajputs, are committed to a life of action. They are brought up to regard individual achievement as important, and sensual indulgence to be not wholly wrong if it is enjoyed within socially prescribed limits. In spite of the existence among a sophisticated minority of the cult of nonattachment, the principles of *yoga* are unfamiliar to the West, and the experience of surrendering one's powers of volition is felt to be threatening and distasteful — as European experimenters with hashish (and the writer, with bhang) have found. Wolff (9) is, however, too sweeping in suggesting that cannabism is a peculiarly oriental taste. The Rajputs are far from being the only Easterners who dislike it or feel no need of it. Porot has pointed out that Indian hemp could easily be cultivated in the Far East, and yet it is practically unknown to the peoples of China and Japan. La Barre's (20) account of Chinese personality suggests that that people have little inclination to despise material pleasures of this world; and the Japanese would be the last, one would suppose, to renounce the active life.

On the basis, presumably, of his own religious convictions, Wolff has implied that the ecstatic intuitions experienced through cannabism, far from having any validity, represent a flouting of "an inviolable moral law." This is the antithesis of cultural relativism. No one is left in doubt where Wolff takes his stand. Were the present writer to emulate this candor, he would have to say that of the two types of intoxication which he witnessed, and in a measure shared, in this Rajasthan village, he had no doubt that that which was indulged in by the Brahmins was the less socially disruptive, less unseemly, and more in harmony with the highest ideals of their race; and yet so alien to his own personal and cul-

tural pattern of ego defenses, that he much preferred the other. It was a case of *video meliora proboque, deteriora sequor*.

POSTSCRIPT

Since the above article was written, Aldous Huxley (21) has published an eloquent and perceptive account of the experience of mescaline intoxication, which is shown to resemble that induced by bhang. Huxley was particularly struck by two aspects: in the initial stage, by the primordial vividness of visual impressions, in perceiving ordinarily commonplace objects; and in the later stages, by the feeling of superhuman insight into the nature of things, accompanied by a complete detachment both from his own self and from those of his fellow men. He regards mescaline as a "gratuitous grace" which facilitates the sort of mystical experience which he finds both chastening and rewarding, in much the same way as Brahmins and Saddhus regard bhang as an aid to contemplation. Yet he is unrealistic enough to wish that Americans, and Westerners generally, should take to this drug in preference to alcohol and tobacco. If the thesis of this paper is valid, Westerners have refrained from taking mescaline (which has long been available to them) because its effect does not accord with their desires. Unless there is an unforeseen reversal of their basic values, they are as little likely to follow Huxley's advice as are the Brahmins to abandon bhang in favor of the Rajputs' daru, or vice versa.

SUMMARY

In a village in northern India, members of the two highest caste groups, Rajput and Brahmin, were found to differ in their choice of intoxicant, the one taking alcohol, the other a preparation of *Cannabis indica*. An explanation for this cleavage was sought in their own associations to the two drugs, in the psychological effects of their type of intoxication, and in the different values stressed by each group, both in their personality development and in their ideal patterns of behavior. The cultural uses of alcohol and of *Cannabis* intoxication are discussed in the light of this illustration.

Reproduced by permission from the Quarterly Journal of Studies on Alcohol, Vol. 15, pp. 220-237, 1954. Copyright 1954 by Journal of Studies on Alcohol, Inc., New Brunswick, N. J.

REFERENCES

1. Ravi Varma, L. A. Alcoholism in Ayurveda. *Quart. J. Stud. Alc.* 11: 484-491, 1950.
2. Horton, D. The functions of alcohol in primitive societies: a cross-cultural study. *Quart. J. Stud. Alc.* 4: 199-320, 1943.
3. Porot, A. Le cannabisme (haschich-kif-chira-marihuana). *Ann. méd.-psychol.* 100¹: 1-24, 1942.
4. Gautier, T. *Le club des hachischins*. Paris; 1846.
5. Guilly, P. *Le club des hachischins*. *Encéphale* 39: 175-185, 1950.
6. Baudelaire, C. P. *Les paradis artificiels, opium et haschisch*. Paris; 1860.
7. De la Mare, W. J. *Desert Islands*. London; 1924.
8. Hesnard, A. Note sur les fumeurs de chanvre en Orient. *Encéphale* 2: 40-46, 1912.
9. Wolff, P. O. Problems of drug addiction in South America. *Brit. J. Addiction* 46: 66-78, 1949.
10. Dhunjibhoy, J. E. A brief résumé of the types of insanity commonly met with in India, with a full description of "Indian hemp insanity" peculiar to the country. *J. ment. Sci.* 76: 254-264, 1930.
11. Bromberg, W. and Rodgers, T. C. Marihuana and aggressive crime (in naval service). *Amer. J. Psychiat.* 102: 825-827, 1946.
12. New York City, Mayor's Committee on Marihuana (Wallace, G. B., Chairman). *The Marihuana Problem in the City of New York: Sociological, Medical, Psychological and Pharmacological Studies*. New York; Cattell; 1944.
13. Mayer-Gross, W. Die Auslösung durch seelische und körperliche Schädigungen. In: Bumke, O., ed. *Handbuch der Geisteskrankheiten*; vol. 9, spec. pt. 5, pp. 112-134, 1932.
14. Carstairs, G. *The Hindu*. Edinburgh; 1926.
15. Taylor, W. S. Basic personality in orthodox Hindu culture patterns. *J. abnorm. soc. Psychol.* 43: 3-12, 1948.
16. Kardiner, A. *The Psychological Frontiers of Society*. New York; Columbia Univ. Press; 1945.
17. Carstairs, G. M. The case of Thakur Khuman Singh: a culture-conditioned crime. *Brit. J. Delinq.* 4: 14-25, 1953.
18. Bunzel, R. Role of alcoholism in two Central American cultures. *Psychiatry* 3: 361-387, 1940.
19. Shaloo, J. P. Some cultural factors in the etiology of alcoholism. *Quart. J. Stud. Alc.* 2: 464-478, 1941.
20. La Barre, W. Some observations on character structure in the Orient. *II. The Chinese*. *Psychiatry* 9: 215-237, 1946.
21. Huxley, A. *The Doors of Perception*. New York; Harper; 1954.

EXPERIMENT FIVE

HENRI MICHAUX
Translated by Patrick Gregory

IN ORDER TO START myself off in the most exalted direction I begin by reading through several Hindu poems and then take up *The Life of Buddha*, which I had laid aside a few weeks ago having found the book a disappointment.

This time immediate enthusiasm, without any reservations, and I am carried away, transported, without being able to put my finger on the point of departure.

tendency to
personalize
mescaline

Quite mechanically I raise my fingers to my face and I am aware of the odor *sui generis* of mescaline, and I realize with emotion that the two of us are one, that we together are sharing these words, and this amazing revelation of life's magnificence.

The page fades, more urgent things seize hold of my attention, and I find myself busy forming resolutions, completely convinced that I now know what really matters in life. Away with these trifling worries about Art! I must change my ways—starting tomorrow I must set out on the path of liberation, the path of saintliness. I remain immersed in these reflections for some time and then resume my reading. At the very first lines a sudden surge of exaltation, almost physical, as if I were in an auto and someone impetuously slammed a foot down on the accelerator.

The present translation by Patrick Gregory first appeared in *New World Writing*, published by New American Library, and is reprinted here by permission of author and translator.

Experiment Five

85

*The deflection,
the diabolical
deflection*

And now that I am at the pinnacle of enthusiasm, at the point of highest tension . . . what then? What is happening? What is going on?

Is it because of these photos of the Hindu Pantheon that I have scattered about me in which one sees the gods with their goddesses — goddesses with voluptuous, flowing limbs, carved by knowing hands, figures conceived and destined for love?

*infernal rodeo:
I change
at top speed
from one mount
to yet another
sort but
still
at full speed*

Is it because I have recently learned from a thesis written by Dr. Wilhelm* that madmen have reacted to mescaline by an outpouring of obscenity, obscene words, obscene gestures, demonstrating that this drug, so cold and metaphysical, also knows how to exalt eroticism, and that I can expect at one time or another to see my subconscious rise to the surface?

And can it be that these two affective attitudes, the erotic and the mystic, are really so close to one another in essence?

Strasbourg, 1955.
*I see
the Unnamable*

. . . Suddenly my enthusiasm undergoes a transformation — no recession, but on the contrary, an augmentation, an intensification — and I see (in an interior vision) . . .

Everything, ah! everything that can in an instant reveal itself, hide itself, offer itself!

*Prodigious
pollution*

Prodigious pollution, undulating, unfurling, engulfing the horizon, and the horizon of my soul and my soul's desires.

I am stupefied, gasping for breath. I have not yet grasped what has happened to me and I want to convince myself that these visions, incredibly, unreasonably licentious, but of a mescalinean licentiousness — that is to say, infinite in their lewdness — will not continue.

But can I really believe that? And here I am wondering whether I am or am not going to allow myself to watch this impossible performance for a moment more.

*trance
that expands
erotic
trance*

Haven't I understood yet? Understood what? That it is not so much the vision that counts, but the trance, the trance that comes in like a thief in the night and snatches me up, and then expands,

*Dr. Wilhelm, *L'intérêt de l'épreuve mescalinique dans les maladies mentales*. Strasbourg, 1955.

*catapulted
into eroticism*

*fluids ravage
me
shaking my soul*

*metaphysical
orgasm*

*fissures
delights
precipices
avalanches*

*cataclysm
of delights*

and expands, and expands, and pushes me, precipitates me into a state of ecstasy, an ecstasy not physical, not local, but interior, essential, central to my being and that drags me down into this center and imprisons me there, and intoxicates me, bowls me over, corrupts me, dissolves me in a spasm of delight, without check, without counterweight, without restraint, without will, won't, or can't—an insatiable, symphonic concupiscence whose lewd vistas are only the corroboration and illustration of the multiple, impossible, cerebral orgasm that holds me relentlessly in its grasp.

The whole world seems to be caught up in this flood of extraordinary delight. Eyes drown, limbs drown, beings drown. A great stream of bodies flows by, one against the other, pressing, embracing, interlacing, a meander of torsos lost like me in the great divide of delight.

Amidst these gigantic embraces vines larger than life expand and intertwine—tremblings and delights metamorphosed into vines. Earth and waters, mountains and trees, all give themselves up to the debauchery with lascivious writhings. All is fashioned for delight, by delight—but a delight that transcends human dimensions, that ranges from the most impetuous thrill of exaltation to a sort of half-death where, however, an abrasive trickle of pleasure still flows. In a cataclysm of delight this mass of animal humanity is seized by convulsions, these spasms bringing it into harmony with the ecstatic disorder of my spirit.

From time to time I open my eyes (which glow, I suspect, from the illumination within me) and try to fix my gaze on the neuter objects in the room, objects that have, in the past, served as barriers against the surging dissolution, dikes to hold back the filthy flood that pours in from all directions.

But I have lost confidence in them and it now seems as though all objects have relinquished their neutrality. And this is what I come to realize and the fact is drummed home, with ever-increasing emphasis, by an illuminated vision of overwhelm-

ing eroticism: nothing is innocent, nothing neuter—no being, no thing.

This truth is continuously dinned into me and the flashing evidence, enveloped in an explosion of light, fills my consciousness and I see them (everything) for what they are: universal fornication, or preparation for fornication, or symbols of fornication.

In a sort of Luciferian demonstration the most banal forms, the most utterly insignificant forms, reveal, by a series of flash-back visions, their essential relationships to the one, only and impure reality.

It is incredibly bizarre to see objects, objects up until now completely innocent, perverted, mentally perverted, in such a manner: the stem from which droops a flower, and then the flower itself, formerly effaced, and then the fruit, currants, a cluster of currants (this red so very outspoken, these spherical forms so unequivocally expressive) and the very name, currants, that swells with sensuality like a soft sponge in a tepid bath of soapy water.

This looming mass of currants that I see, clusters and garlands, intoxicates me, degrades me, and now I know, will always know, the exact meaning of our affinity and the nature of this pleasure that is to be found in their evocation, currants, and the evocation of merely the word, pleasure that even the purest of maidens must find in them, and that opens in me an abyss; abyss, for I assess the depth of my descent into vice and degradation by the intensity of their erotic fascination, by the extent to which such objects are contaminated, becoming for me more erogenous than the most beautiful of breasts, or a secret embrace in the shadows. Far more than any erotic scene it is this violent and ever-increasing perversion of objects that fascinates me, bewilders me, a poem of swarming things, of larvae, of inundations, of tropical exuberances, vague like the sea (yet even more exalting) and like the sea again, limitless, knowing no barrier, an immense orgiastic respiration.

*the erotic
illumination*

*Demonic
ecstasy*

*corrupted
objects
bearing
messages of
corruption*

*libidinous
clusters*

All that I witnessed that afternoon would fill with delight the lifetime of any man. The devil's temptation, I know it now, and I know too that there is no swimmer strong enough to struggle against that stream.

eroticism of dislocation of grinding of blasting

Its immensity, its rapidity, its maddening repetition, its secret undertows, its universal devastation, are without comparison.

unwinding of the will

Seduced, all succumbs and sinks, dragged down into a bottomless pit of eroticism that resembles some gigantic dislocation of the Earth's surface, some earthquake. Lines, even the most emphatically linear lines, almost abstract at first and without any relation to human forms, suddenly become inebriated and indulge in disgraceful undulations. One cannot say to what, to whom, these movements correspond but they are disgraceful none the less and I cannot follow them without sensing my own depravity being multiplied to the maximum degree, for I am enmeshed in these elongations, these flabby, limpid fissures that whine like a saxophone proclaiming: promiscuity, promiscuity, universal promiscuity. And one cannot break away, disentangle one's self from the all-engulfing impurity.

impossible to swim away

I am immersed in contemplation, total impregnation. But no sadism. In the flow of associations Sade himself comes to mind and I have to laugh — Sade, and all the trouble that he went to, so highly organized, so very methodical, so businesslike. No cruelty here. Truly not necessary. Faith in a general, in a universal impurity, *entirely sensual*, without overlord or underdog, without suffering or desire for suffering, an unalloyed sensuality overflowing everywhere!

metaphysical shamelessness

The absolute *impurity*, or rather, the absolute *anti-purity* sinks ever deeper into the joy of shamelessness.

the plant is debauched

This force that debauches plant, soil, Earth, everything (a turbid spectacle, but above all, excessive, excessive) has only one aim: eroticism, only one concern: eroticism, with absolutely no room for anything else, for the least distraction, for the least diversion, and would constitute (and

not only for the Christian) the 100% temptation, the temptation *par excellence*, the irresistible temptation, more disastrous to love than the most puritanical denial.

Enormous exhibition of profanity. Sprouting limbs (animal or vegetable? — who can say? what does it matter?) answer with exuberance the monstrous cry that wells up within one, and the entire world must participate, and all mental images coagulate and contribute their mass to this prodigious rhetoric of the rut.

Water-lilies, roses, antique columns, outlandishly obese morulae, Ottoman cupolas, naves, vaults, arches, minarets, basins, pillars, a multitude of forms of all kinds now speak out with resonant clarity, no longer in an undertone. And now the perversities on these monuments, these ornaments, stand out in sharp relief and one wonders how they could have been overlooked, unrecognized, so strong is the impression.

from depravity into a yet more dilated depravity

At the same time grotesque rhythms, dragging, sliding, caught up as well, yes, especially them, in this eros-orgy make mock of conventional eroticism and replace it with wild lurches, coming at irregular intervals and with irregular degrees of force, dividing and multiplying, a veritable deprivation of rhythm which could correspond (for everything is linked) to the gigantic tumults and embraces of an incestuous passion, in a roller coaster, in a bombed-out city, with insects tickling your feet; or to a choir which, while singing Messiaen's setting to the liturgies of the Divine Presence, would suddenly fall sprawling into the mud with shrieks of evil laughter.

Overflowing with delight and sensuality, the human appendage and all its specialized organs forgotten, one exists as a simple integer in a bestial Eden. A sort of return to the archaic state of being, that is what one feels, a state understood (if they are capable of understanding) by unicellular creatures, when the overfed cell, turgid and satiated with itself, splits in two — can stand it no longer — divides, disgorging an indigestible half of its insupportable bulk. And it seemed to me that I

was thus unburdening myself, ceaselessly, in this extraordinary act of deliverance.

I have lost all care, all shame. Whatever it is that is attacking me simultaneously (and I seem to be skidding, out of control) at all the centers of pleasure, has now come to its conclusion, its apogee, its demonic issue, which is the *dissolution of all countenance*, of all will power (dissolute: a word so very apt that, in a flash, I understand) in an incessant grinding action inflicted at a superhuman speed which wipes away all possibility of resistance. This rapid movement causes the interior of my being to give way and collapse into a pleasing nothingness, only to dilate itself an instant later, and fall apart again, and then swell up, and again come tumbling down, and again rise up, again, in an impure assumption. An impossible rhythm anywhere else. Dissolution! Dissolution at top speed! That is where I have gotten to in this trance with no exit, exultation in general dissolution. The temptation of Saint Anthony, I know it now: the temptation of dissolution of the will, of demeanor. Amidst this universal feminization the sinner sinks down, content. *Delight in deliquescence.*

Worn out by asceticism, he must have been visited by similar visions, rushing, swarming in upon him at this bewildering speed, this disorganizing rapidity, so unexpected, so superhuman or (infrahuman) that one does not know how to defend oneself, or even that one ought to defend oneself.

No man can stand up to this demonic operation. A great many mystics have said it: "No man can resist its power. Only the Grace of God can do that."

Temptation of the sex-brain. Exaltation, as though a secondary brain, liberated from the principal one and become all-powerful, functions alone, sliced from the other and functioning only for eroticism, concerned only with eroticism, and whose reasoning, whose logic, whose memory, whose style, are *exclusively* erotic, but which none the less manages to belong (oddly enough) to a

*Dissolution
of all will power,
of all reserve,
of all
serenity*

THE TIDAL WAVE
IN THE
NERVES

*delight
in
deliquescence*

real world, an exclusively erotic world, stuffed, saturated, composed of erotic matter, which then parades by in endless ranks under a prodigiously perverse, clairvoyant, and malevolent gaze.

Then does the devil really exist? The demonic operation exists (on a nonhuman level), which with a rapid downward plunge, accompanied by the unfurling of millions of spasms within the soul, severs in its frenzy the *virtus* from *virtuous* and brings about in man the degradation of all nobility.

It pollutes the angel in man. A state absolutely out of the ordinary that only the mystics, drugged with fasts, vigils, and prolonged orisons that leave them completely exhausted (but thereby clairvoyant), and several madmen have experienced, though neither mystics nor madmen have spoken of these experiences in a comprehensive manner, the mystics because of their discretion, their fear of attracting attention to things that should be avoided, and the madmen because of their lack of attention and verbal coherence. Among the meddlers in demonology, Stanislas De Guaïta seems to have known this state: "What is this fearsome spasm," he writes, "that grabs hold of you, that enervates you, crushes you? What psychic pollution of Nature is this that compels you to partake with delight in the degradation of all beings, all things?"

It is only reasonable that swamps, mud, flowing sewers are the images belonging to this state, where one is most certainly caught up and carried away. Sin (yes against the self, against its personality, against its nobility, against the idea of the self that one wants to hold on to . . . and (for a man who possesses religion) against God.

The demon-seducer has mounted the throne, for you have let yourself go, indefinitely, yielded to infinite abandon. The seduction of dissolution. Sin: acceptance of dissolution.

But I have not yet said enough about the importance, the omnipresent and subterranean importance of the rhythms. Above, below those already mentioned, there will always be found one particular rhythm which unrhythmically— it excels

*by the
unfurling
of millions of
spasms*

*the degradation
of man*

*psychic
pollution*

*the will
rotted*

*seduction
of
dissolution*

*unfurling
in the nerves*

the others as a corrupter, as a decayer of virtue, as a liquidator of credos — disrupts, devastates, decomposes, with a diabolical lack of restraint, with raillery and ridicule, the relative stability that one could always find in vice, in order to make you sink deeper, and yet deeper, and yet blasphemously deeper. Polyraillery. Polyrhythmic. Polydevastation: such is the mescaline style and the demonic style.

When the erotic spectacle of human bodies has withdrawn from the limelight, when in turn the spectacle of possessed animals and vegetables has faded, and finally, after the monumental and geological monstrosities have ceased their gyrations — when you no longer know what it is you are looking at amidst the utter confusion of all these various forms slapped about (and snapped up) by alternating movements, underhanded, unexpected movements similar to enormous outbursts of laughter that are suddenly cut short — then you lose all equilibrium and feel yourself flowing in zigzags toward the essential shamelessness, drawn on by an indefinite force from one audacity to another, a greater audacity, and you are mad for impurity, yearning to dissolve yourself in yet greater, yet more excessive, yet more revealing lewdness, and without end.

Even in abjection mescaline is never forgetful of infinity.

I get up. I want no more of this. I have touched bottom, and God knows in what condition I will return, if I ever do manage to return.

I don't want to see any more, know any more. I must get out of this infernal orbit.

Besides, I have learned enough. *Basta!* Even the devil, my curiosity once satisfied, could not keep me any longer.

That's it! I've caught hold of myself. Done. Success!

But look out. Something is swelling up again. Something still simmering.

*I quit
the infernal
orbit*

not yet

Just a short while ago, for the first time in my life, I was totally, frantically, diabolically, on the other side (the side of perversity). What would a second time be like?

The day of my experience with madness,* I had continual desires to kill, destroy, burn, cut, which I instantly fought off, which returned again, which I fought off, etc. Just now, in a sort of ecstasy, in erotic *transports*, I was lost in contemplation and *letting myself be carried away*, without putting up any, or almost any, resistance. There's the difference. You *don't withdraw from ecstasy*. And now, what's to be done? I feel that I will draw back from nothing. And that's all. Can't grasp any other facts. That's not a good sign, but from where will the danger come?

I try to create a vacuum, a perfect vacuum in myself, and maintain it.

I supervise my thoughts for fear that I shall introduce into them some person that I respect, and thus subject this person to the indignities that are in the process of preparation.

By way of distraction, having remembered that the sense of smell sometimes behaves strangely, that perfumes undergo abnormal transformations, I take up a vial brought back from the Orient and unfasten the cap.

Coup de théâtre!

From its prison, the ponderous Syriac perfume escapes, and enters. Blasphemous, huge, irresistible, like a fat laugh bursting forth from the sequestered nave of a gothic cathedral, it enters, sweeping aside my being (my style of being) and I let it flow into me, over me; I wrap myself in it, smear myself with it, pervert myself by it. Infamous incarnation.

As if in echo to the perfume, one of those cross-echoes so particular to the drug, a woman's voice is heard, a solemn voice, in the distance. My God, if only she will stay there in the distance, but of course, my thought anticipates the action. Immediately she moves toward me, like a black savage utterly possessed by lust, and that noise

and?

*the ponderous
Syriac perfume
enters*

*depravation
by smell*

*This experience is described in Michaux's *Miserable Miracle*, Chap. V.

that she is making with her tongue and with her whispering breath in a sleeping mouth, a familiar noise, rapidly erodes away my resistance. But I must, I must resist. There can be nothing between us. While I am pulling myself together — or trying to — she takes off, automatically, her dress, her education, her politeness, her reserve, her party manners, our distant friendship, and she has done it with a flick of the wrist, as though they were all a single chemise.

And the laugh! That laugh! Has she ever dared to laugh like that before, show off, give off such a laugh!

Profanation! I did not want that.

We are not man and woman, woman and man, but something simplified to its most elemental state, like two masses reduced to contrary charges of electricity, like two fluids that are compelled by some law of physics to mingle and blend. The demonic lewdness in her, the tempest which has in an instant swept away all that she was before, the old faith to which she clung, and everything else, is outrageously incredible, and although I have not made a move, it is certain that I am an accomplice.

The nihilism of this lewdness, the infernal contagion that she has just contracted, and which seems to have rotted her in an instant, would make her unrecognizable even to those who know her best and it appears to have spread its defilement retrospectively, back to the time of her first communion, back to that day when her life was transfigured. — Well, now she has it, that transfiguration of her life! The God-extractor has done its work. Our secret subterranean complicity was acting, and we were held like captives in a cask. It must not be allowed to continue!

You will say to me: "But all that was only in your thoughts." Yes, but when thoughts are that intense, they are a hundred times more real than reality. The essence and power of reality made forever unforgettable, "consecrated."

It must not be allowed to continue. I rush to the window and throw it wide open. Simultaneously, the bright light striking my eyes, which have

*No, no
it must not
it must not
it must not*

grown hypersensitive and unaccustomed to the sun, and the brisk, chilling air, make me ill and dissipate the vision, and almost dissipate the presence. I have succeeded.

I return to the couch and stretch myself out, exhausted. These yanks at the brake are the most exhausting of all. Something is still going on inside me, but it is vague. I am disoriented. I have managed to stop the process, and now I seem to vaguely regret my action, regret not carrying through to the end. Cowardice or not cowardice? Which way does cowardice lie — in stopping myself, or continuing on?

*I have
interrupted
the process*

*You must always
pay for that*

*I play at
throwing my
hand,
farther
and even
farther*

Far from relapsing into a calm, passive state, I find myself playing games. Well now, this is the first time this has ever happened to me. And what a silly game I have invented. A madman's game has popped into my head, I don't know how: I play at throwing (mentally, in an interior vision) my hand, as far away as possible, farther, and even farther, phenomenally far . . . so far that — there! I have gone and lost it. Idiot! Now you have got to find it again. But to find a hand lost in space! I can't see it anywhere. Will I ever see it again? I'm frightened. Since eroticism banishes fear, and since I now know the way there, I begin to wonder whether I should not return. As I hesitate, half won over, I find my hand again. Whew! Let's be more prudent. Play it safe.

No more games under the influence of mescaline. Never again. Always overdoing it, going at full speed into the beyond, farther, farther, no playmate for a man!

Let's try drawing.

Drawing with a red pencil.

The act of drawing radically increases my presence in my hand and in my face, for I habitually reflect on people's faces rather than on their bodies.

*the drawing
provokes in me
a return to
the hand
to the face*

My face, forgotten and lost for hours: it is as if I were cutting a path toward it, approaching it from behind.

A rapid turn of the wheel that — away from the universe, from adventures — leads me back to my face.

I return to the face like a swimmer, after a dive, returns to the surface. But I am ill at ease there, not at home.

Horrible drawing of a face in which I see the ravages inflicted and yet to be inflicted, and everything that is vulnerable in the face wants to express the disorder, the disarticulation, disintegration that I feel strongly outside of it.

A head that some people will look at later with extreme uneasiness. A head more undone than pathetic, an outlaw's head, the head of a broken man, at the end of his tether, that tragedy now beckons . . .

I abandon this drawing which is like a pang of bad conscience. Now no more face, no more awareness of face or of evil. I return backwards into my centers of the here-and-now, into my abodes of the here-and-now.

Don't immobilize yourself in the mescaline. Keep your freedom.

Given myself good advice today, but a bit late in giving it.

Finished once again with the adventure and with the queer satanic experiment. Will I now be able to say, like the Yogi said of his Tantric teachings?

"Inaccessible to all impregnations
delighting in every delight
touching everything like the wind
penetrating everywhere like the air
the Yogi is always pure
a bather in the stream
He delights in every delight and no evil
can soil him."*

*Kuldrnavatantra, IX.

No, I could not bring myself to say that. I had to "disimpregnate" myself.†

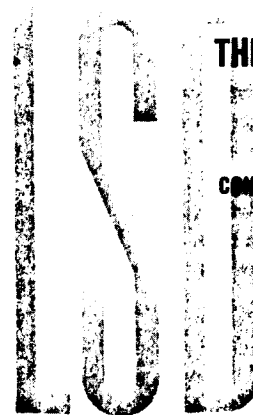
I had been spoiled.

It was after gazing at the feeble ugliness of my mad drawings that I began seriously to disentangle myself and to detach myself, disgusted, from that afternoon which, were I to live ten lifetimes, would always remain in my memory.

First moments of decontamination.

It was more than two months later that, having gone to the seaside one brisk autumn evening, I was able to turn toward the biting wind, toward the sea, mother of energy, without sensing the presence of that turbid atmosphere that I had been dragging about within me. I turned toward the wind as I was compelled to do, as my nature demanded, and there suddenly surged up that solid side of me that had vanished eight weeks ago. Since then, since the seaside, it seems to me that it has gained ground, and that hardness, anti-deliquence have become my battlecries, my comrades, my goal. But between it and me, still falls a shadow . . . a spell, in a certain sense the continuation of myself.

†The erotic (satanic) bath being an hypnotic bath.



THE CONSCIOUSNESS-EXPANDING DRUG

Edited by David Solomon

Introduction by Timothy Leary, Ph.D.

CONTRIBUTORS:

Aldous Huxley	Humphrey Osmond, D.P.M.
William S. Burroughs	Jonathan O. Cole, M.D.
Alan Watts	Huston Smith, Ph.D.
Dan Wakefield	Roy R. Grinker, Sr., M.D.

\$5.95

Please send your orders (pre-paid, no charge for postage) to The Psychedelic Book Service, Box 171, New Hyde Park N. Y.

SECOND EPISTLE TO THE ROMANS THE PSALM OF WHAT IS

WILSON VAN DUSEN

THE SETTING: July 31, 1960, I took 150 micrograms of LSD in my 21st session with the drug. I was at home, isolated in a little room on a couch with the sounds of my family nearby. The prior LSD sessions were strongly religious and aesthetic for me, with some visions of the Lord alluded to elsewhere.* For days before, I had engaged in a bitter struggle alone on a mountain to know the Will of God. Under LSD I knew, with trembling excitement, that the answer was coming, so I struggled to write the following in a scrawling hand across pages of paper. I heard it and felt its many meanings all at once, and could barely get it all down. It was a joyous, busy, trembling occasion without time to reflect on what was being written. It was given to me as follows:

Hail,
To all peoples,
I have found the Lord
Hidden,
In the most obvious place.

The Lord is
The What Is
That confronts us.
That obvious.

We have intercourse
With the What Is,
And intercourse is the Word,
For it takes place not only in the
world, in the eyes of others,
But it takes place within,
In the very secret darks

Of what we are.

In here
In what we are
We have intercourse
Man
and I.

Insofar as you love Me
And sum up in your pouch
All you are,
All your pride,
In your little pouch,
And give this,
Then I answer as the What Is.
Is the answer so obvious
That you do not see
It is the Lord?

*Van Dusen, W., "LSD and the Enlightenment of Zen." *Psychologia* (Kyoto, Japan), 1961, 4, pp. 11-16.

For I am the Lord What Is.
It is with Me you have intercourse.
And this intercourse is your life
And Mine
For I too suffer
In the darkness of your soul.
It is that kind of intercourse,
Life and death.

No man —
Sum up what you are
And give it to Me.
You live and breathe and move
In my will.
Your very thinking is My creation
Your very pride is My design,
It is my pleasure of myself
In the creation of what is.

In the secret recesses of yourself
Give me this
And I answer in the most obvious
way imaginable,
As the what is.
To find me
Give way to what is.
I am not far
To be sought,
Always with you
As I promised,
Constantly by your side,
Falling as you fall,
And rising as you rise
In this what is.

In this pit
My love.
For it is, after all,
Only I.
I make the pit
And the rising and falling
And the trembling you heré
And your ability to question me
That lover can say to lover,

In the bed of existence,
Is that you there?

When you are already carried into
the extreme
Where it can be only I.
And so all of existence
Is our playful, joyous and agonizing
intercourse,
Where the question of
Is that really you?
Is the issue.

Yet it is only you
and I.
In the whole bed of existence.
And I come to my lover and say,
See,
I made you,
In the bed of existence
You are my substance.
Fear not,
For I am yourself.
Are we not like lovers?

You want to know if it is really me.
And I show you your hands.
I made the whole world.
But, so much of a lover,
I don't mind being your mute hands
In your work.

And yet
I am the What Is.
I am creation
I am all there is,
In endless intercourse
With myself.
The intercourse of the What Is
Is creation.
And were it not for love,
There would be no creation.
Gentle love
Is the root of it all.

All people —	Hurt Me
It is I	and I hurt you.
Who rise and fall with you.	Yet, I am both of these.
Help Me.	Come,
For I am all there is	Your life is intercourse with Me.
For I am creation	
Your very abode,	Now,
Help me	Like gentle lovers
For I live here	In the bed called world
With you.	You
I am, after all,	and I . . .
Both the petitioner	You always have what pleases Me.
And the petitioned.
Lift Me	It is what
and I lift you	You are.

COMMENTS ON THE PSALM:

The first title, "Second Epistle to the Romans," was given in a somewhat joking vein. There is only one Epistle to the Romans. A second epistle would raise a question. We are the modern-day Romans glutted with wealth. This letter wasn't to be a warning, though; it was to advance the understanding of the modern-day Romans. The "Psalm" or song of "What Is" conveys more of its spirit and content. I thought of dropping the first title but was given to understand that it was to remain.

The *Hail to all Peoples* was very joyous, like a man gone mad with a happy discovery, running down streets shouting to all. The next few lines are a paradox. Where better to hide the eternal one than in everyday diversity? However it might disturb the religious minded, the next lines were meant literally. *The Lord is the What Is that confronts us*. This may sound like pantheism; but if one considers it is all the *What Ises* everywhere at all times, it won't seem too limited. In the total message of the Psalm, this meaning enlarges.

And intercourse is the Word illustrates the many levels of meaning that are alluded to all at once:

- 1) The Word treats of all things, even sexual intercourse.
- 2) When man reads the Word he has intercourse with the Lord.

3) Our situation is one of intercourse in all senses: rape, love, social knowing, all inter-coursing or going between.

4) This intercourse is in the social world and even within the nature of each individual. It appears that there is no aspect of life which is not the intercourse of man and God. Ultimately this intercourse takes place within God, man being something of an artifact.

In what we are, we have intercourse, man and I. Though all of the Psalm was given me, it is only at this point that it gradually becomes apparent that the Lord of Heaven and Earth speaks. His first and last emphasis in the poem is on the reality of what man and God are. I can only report, without fully understanding it, that the Lord views all the real as sacred. Perhaps He views Himself as the real and this respect for the real is faithfulness to Himself. Words and symbols are only pointers towards the real, and hence of lesser station. By real I gather He means things such as rocks and trees. But there are more meanings here than this. I suggest, but don't delimit. There is no mere exchange of words and ideas going on in this Psalm. The Lord points to His and man's actual nature.

For a long while I thought that the section telling man to sum up all pride in his pouch was a religious gesture for special occasions. If man would give all his pride to God, God would answer. Now it appears to me this is the everyday. We always act with all our pride. And the Lord always and constantly answers as the What Is. The reference to pouch always seems masculine to me, as though there is an allusion here to testicles and man's giving himself in ejaculation. Again sex appears sacred. Or the pouch is one's purse or where all one's valuables are. The giving of pride could be the conscious ejaculation that I of myself can do nothing. There is another mystery here, the implication that insofar as one lets go of pride, one can see the Lord's answer. Pride makes us tall against the background of the world. Without pride, the death of the little ego or self, the world What Is stands forth tall as all creation. Ejaculating pride, the Lord What Is stands forth. There is more here which I do not understand.

Is the answer so obvious is a good pun. Most would say the Lord's ways are obscure. But here they appear as the most obvious; in fact, obviousness itself. The dialogue is then between little me in my pride, and all there is. All there is does not fail to speak. But one must look for the dialogue between himself and events to see that it takes place. Otherwise, the What Is is reduced to inconsequential chance, and pride stands tall.

For I am the Lord What Is is similar to Exodus 3:14, "God

said to Moses, 'I am who I am.' The Lord sees himself as the only self-subsistent, and the Only Real. This is indicated many times in the Psalm. As Swedenborg said, "The Lord is the Very Real." It becomes apparent in this section that this intercourse of man and God is the life of both of them. The Lord so identifies with the struggles within man that He said: *For I too suffer in the darkness of your soul.* I take this darkness as the innermost and unknown within man. This intercourse is not all pleasant and easy, it means *life and death*. The author of this knows pain as well as joy.

No man — has at least two implications. The first was like a giant hand raised to confront and stop man that he might see his life as intercourse with God. The second meaning given at the time was that there is no man. This begins to become apparent in this stanza; for if we live, breathe, move, think and are prideful, all within the Lord's will, there is no room left for man. There is no man *per se*, he is an epiphenomenon within the will of God. In this there can be no personal pride. *Your very thinking is My creation, your very pride is My design.* This is worth meditating on. It is my impression the mind is freed when it sees it is of this design. Even my thoughts about how I think are designed. There is no burden for me to lift, then. The implication of *It is my pleasure of myself in the creation of what is* is that all creation, including man, is God's play.

In the next stanza, *falling as you fall* returns to the idea of a close relationship of man and the Divine. Throughout the Psalm it is said both that man can interact with God and that ultimately this is God's action within Himself. It seems clearly indicated that the way to God is to give up pride, like a sacrificial offering. Give way to what is. *I am not far to be sought* was in terms of the lost man struggling to find Him. Since man lives within His Will, the Lord is nowhere to be sought. *Always with you as I promised* was given with the feeling of an ancient promise given centuries ago that was being fulfilled. That God rises and falls with us implies that we should consider our companion in this What Is. And this returns again to the idea of intercourse, love. *In this pit my love* conveys the seriousness of this relationship. It is ultimate or total. The bed of existence again points back to intercourse. In this stanza the issue is seen to reduce to — with whom do I have intercourse in this bed of existence? The question becomes foolish, for by the time the man is addressing all of creation, it no longer matters what name it is called. It is already the One.

Yet it is only you and I has the implication that for each person, all others and all else is the What Is that speaks. So it is

only *you and I* in the whole bed of existence. The cry *Is that really you?* is a painful, agonizing one of the total man to the Lord Himself. Yet the Lord answers kindly and tenderly that there is nothing to fear, *for I am yourself.* Yet there is separation again: *Are we not like lovers?* This ultimate understanding, that God and man are one, is touched and then left again. It is more than man can grasp. The play of lovers goes on.

Over and over the Lord creeps in on human identity. Here He identifies Himself as the maker of the man's hands. It is a simple mystery that I did not make my hands nor do I really know how they are moved. If the Lord is one's mute hands — how close?

In the next stanza the Divine again identifies Itself as the whole of creation. Since He is the man and the Divine, He is in intercourse with Himself. *Gentle love is the root of it all.*

The section beginning *All People* — was given in a plaintive cry. It was as though we live within His house and He depends on us to help keep it in order. There was the image of the whole earth as a house we share. It was shocking to hear His dependency and my responsibility. Yet, in the next to the last paragraph it again becomes apparent He is both sides of the coin — the petitioner and the petitioned.

The last stanza was like gentle love itself. It was said with great reassurance that, whatever one's situation, one has what pleases the Lord. The greatest gift that could be given is one's real nature, since this is the Divine Itself. The last line comes to the deepest theme. Here *What Is* is turned around to *is what* because it is man that is spoken of. It is implied that man exists within God and is the same life.

Many signs were given me after this, but they were for me. One of them might interest the reader. I saw the arm of God coming down out of Heaven, clasping in a tight grip the arm of man reaching up from earth. Both had green sleeves all decorated in the loveliest design of thistles, representing the sacredness of life's trials. The Divine and the human were identical except for their position. And they were clasped as though each held equally to the other. God draws man to heaven and man draws God to earth equally. I have hesitated to report this because of its very nature and because I don't want the sacred to be exposed to doubt and criticism. For myself, I begin to see the dialogue with the What Is in the everyday. And it is a great pleasure to begin to feel that I am not alone in this bed of existence. My cry is heard even when silent.

MEETINGS WITH REMARKABLE MEN

By G. I. Gurdjieff

REVIEWED BY TERRY WINTER OWENS

MANY HAVE SOUGHT TO KNOW the sources of G. I. Gurdjieff's teachings and to uncover the facts of his life. Both those who have worked with him, and those whose contact with him was but momentary, alike shared a curiosity and mystification. So deep was the impression that Gurdjieff made upon others that many people of stature and discrimination have given statements proclaiming him to have been the most remarkable man they have ever encountered. It is little wonder that they wished to know what factors had combined to produce such a colossus.

Gurdjieff's *Meetings With Remarkable Men* contains autobiography, covering Gurdjieff's youth and the most mysterious period of his life spent in search of esoteric knowledge in the Near and Far East. But if Gurdjieff concedes this much to curiosity about himself, it is only a small concession. The author had an altogether different purpose than autobiography in mind. His aim is to tell us not about himself but about the men he has known who have proved themselves remarkable — by their courage and endurance, their intelligence and ingenuity, their steadfastness of purpose and perseverance in face of insuperable difficulties. In the end, it becomes clear his primary purpose is not to tell us about remarkable men as mere biography, but to use this biographical form to elucidate the answers to many profound and difficult questions and to validate the principles of his philosophy and teachings in concrete examples.

This, then, is the history of a rare adventure with treasures to be unearthed at every turn of the road. It is an adventure based on his search through remote and uncharted regions for those ancient truths which might serve to develop the consciousness of contemporary man. It receives its substance from the exciting and

often deeply moving accounts of those who reared and trained him, and of those who shared his unusual journey. It is an adventure of the mind — growing, being formed, setting out after inner knowledge, discovering it and putting it to the test of practice.

Those who have read Gurdjieff's first work, *All and Everything: Beelzebub's Tales To His Grandson*, will recall that the author in that book aimed at the "merciless destruction of beliefs rooted for centuries in man." Here, in this second book, like a phoenix rising from the ashes, Gurdjieff turns from destruction to construction. He proves that it is possible for man to attain a certain stability and higher level of consciousness in life based on objective values. Gurdjieff's remarkable men did not cast off their everyday lives but used them as the very material for creating within themselves a new level of Being. Their resourcefulness, ingenuity and perseverance in this unusual task uncover the means for man to actualize his full potential. Throughout the book he illuminates a world of possibilities for man which will be utterly new to most readers — possibilities tailored for the man determined to live, grow and develop in a complex and demanding world — not in a remote monastery or ivory tower.

Those who are acquainted with *All and Everything* will immediately be aware of the stylistic contrast between that book and the new one. The first was very difficult to read, the second is eminently readable. The two books can be linked to a favorite saying of Gurdjieff's father: "Without salt, no sugar."

It is appropriate that Gurdjieff's father is the first of the remarkable men. What good fortune to be the son of such a man! He was one of the last *ashohks* or bards who transmitted ancient stories and legends orally from generation to generation and he lived by principles not founded on conventional ethics or morals but on a wisdom issuing from his own highly developed state of being. His insistence on obeying his own commandments, even in a world which was in many ways counter to such a mode of life, inevitably produced hardships which he met with singular courage. Of him, Gurdjieff remembers:

... all the grandeur of my father's calm and the detachment of his inner state in all his external manifestations, throughout the misfortunes which befell him.

I can now say for certain that in spite of his desperate struggle with the misfortunes which poured upon him as though from the horn of plenty, he continued, then as before, in all the difficult circumstances of his life, to retain the soul of a true poet. (p. 42).

And he instilled in Gurdjieff a deep love of high ideals such as:

To be outwardly courteous to all without distinction, whether they be rich or poor, friends or enemies, power-possessors or slaves, and to whatever religion they may belong, but inwardly to remain free and never put much trust in anyone or anything.

To love work for work's sake and not for its gain. (p. 39)

The next masterful man, Dean Borsh, was Gurdjieff's tutor; a man "distinguished by the breadth and depth of his knowledge." His philosophy of education was a most unusual one — and Gurdjieff credits him with being "... the founder and creator of my present individuality, and so to say, the third aspect of my inner God."

The other remarkable men were related to Gurdjieff by a profound thirst for truth. Despite the diversity of their backgrounds and nationalities, a bond was formed among these men as though they were magnetically attracted by the one paramount aim. They accompanied Gurdjieff on one or more of the rewarding odysseys made to the Near and Far East.

There was Bogachevsky who (Gurdjieff says) is still alive and in a monastery of the Essene Brotherhood near the Dead Sea. Gurdjieff deems him to be

...one of the first persons on earth who has been able to live as our Divine Teacher Jesus Christ wished for us all. (p. 77).

There was Captain Pogossian who, upon completion of theological studies, embarked on a career in the engine room of a ship and went on to amass a huge fortune as a shipping magnate. Pogossian had a unique characteristic; one which makes his seemingly fantastic accomplishments quite believable.

Pogossian was always occupied; he was always working at something.

He never sat, as is said, with folded arms, and one never saw him lying down, like his comrades, reading diverting books which give nothing real. If he had no definite work to do, he would either swing his arms in rhythm, mark time with his feet or make all kinds of manipulations with his fingers.

I once asked him why he was such a fool as not to rest, since no one would pay him anything for these useless exercises.

'Yes, indeed,' he replied, 'for the present no one will pay me for these foolish antics of mine — as you and all those pickled in the same barrel of brine think they are — but in the future either you yourself or your children will pay me for them. Joking apart, I do this because I like work, but I like it not with my nature, which is just as lazy as that of other people and never wishes to do anything useful. I like work with my common sense.

'Please bear in mind,' he added, 'that when I use the word "I", you must understand it not as the whole of me, but only as my mind. I love work and have set myself the task of being able, through persistence, to accustom my whole nature to love it and not my reason alone.

'Further, I am really convinced that in the world no conscious work is ever wasted. Sooner or later someone must pay for it. Consequently, if I now work in this way, I achieve two of my aims. First, I shall perhaps teach my nature not to be lazy, and secondly, I will provide for my old age. As you know, I cannot expect that when my parents die they will leave me an ample inheritance to suffice for the time when I will no longer have the strength to earn a living. I also work because the only real satisfaction in life is to work not from compulsion but consciously; that is what distinguishes man from a Karabakh ass, which also works day and night.' (p. 107).

Then there is Yelov, an Aisor bookseller who felt the same way about mental activity as Pogossian felt about physical activity. He became a phenomenon in the knowledge of languages. Gurdjieff, who then spoke eighteen languages, felt a greenhorn next to him. Another was Prince Yuri Lubovedsky, a man of incredible tenacity. After forty-five long years in a fruitless search for the meaning and aim of his life, he remained undiscouraged. In his persistence, he was finally taken to a monastery in which ancient truths were preserved in an unusual system of sacred dances.

Professor Skridlov comes next, animated by his love of archeology. He engaged in excavations in the ruins of ancient Egypt hoping to find the road to self-realization. Together with Gurdjieff, he came to his greatest findings in the teaching of Father Giovanni.

'Faith cannot be given to man, Faith arises in a man and increases in its action in him not as the result of automatic learning, that is, not from any automatic ascertainment of height, breadth, thickness, form and weight, or from the perception of anything by sight, hearing, touch, smell or taste, but from understanding.

'Understanding is the essence obtained from information intentionally learned and from all kinds of experiences personally experienced.

'Understanding is acquired, as I have already said, from the totality of information intentionally learned and from personal experiencings; whereas knowledge is only the automatic remembrance of words in a certain sequence.

'Not only is it impossible, even with all one's desire, to give another one's own inner understanding, formed in the course of life from the said factors, but also, as I recently established with certain other brothers of our monastery, there exists a law that the quality of what is perceived by anyone when another person tells him something, either for his knowledge or his understanding, depends on the quality of the data formed in the person speaking.' (p. 240)

Others whom Gurdjieff tells about include Soloviev who retrieved himself from a state of dissipation and went on to become a much loved companion of the truth seekers. Another was Ekim Bey who had an avid interest in hypnotism and everything related to it. Tormented by inner conflict, he sought for knowledge that would enable him to "acquire the being worthy of man." He ultimately found this guidance in the counsel of a venerated Persian dervish to whom, almost at the eleventh hour, he was able to lay bare his deepest question.

The milieu of the book seems beyond classification. Certainly it is an exotic one; a world into which we are given a glimpse of fascinating customs and beliefs of peoples largely unknown in the West. For example, the Yezidi, a sect living in Transcaucasia sometimes called the "devil worshippers."

... if a circle is drawn around a Yezidi, he cannot of his own volition escape from it. Within the circle he can move freely, and the larger the circle, the larger the space in which he can move, but get out of it he cannot. Some strange force, much more powerful than his normal strength, keeps him inside. I myself, although strong, could not pull a weak woman out of the circle; it needed yet another man as strong as I.

If a Yezidi is forcibly dragged out of a circle, he immediately falls into a state called catalepsy, from which he recovers the instant he is brought back inside. (p. 66)

Gurdjieff's masterful ability as a story teller produces a whole spectrum of colors; from profound seriousness to brilliant humor. One of the most outstanding shades on his palette is that of sheer excitement. In one episode Gurdjieff and Soloviev are taken to a hidden monastery having given their solemn oath never to reveal its location.

Throughout the whole of our journey, we strictly and conscientiously kept our oath not to look and not to try to find out where we were going and through what places we were passing. When we halted for the night, and occasionally by day when we ate in some secluded place, our *bashliks* were removed. But while on the way we were only twice permitted to uncover our eyes. The first time was on the eighth day, when we were about to cross a swinging bridge which one could neither cross on horseback nor walk over two abreast, but only in single file, and this it was impossible to do with our eyes covered.

From the character of the surroundings then revealed to us we deduced that we were either in the valley of the Pyandzh River or of the Zeravshan, as there was a broad stream flowing beneath us, and the bridge itself with the mountains surrounding it was very similar to the bridges in the gorges of these two rivers.

It must be said that, had it been possible to cross this bridge blindfold, it would have been much better for us. Whether it was because we had gone for a long time before that with our eyes covered or for some other reason, I shall never forget the nervousness and terror we experienced in crossing this bridge. For a long time we could not bring ourselves even to set foot on it.

Such bridges are very often met with in Turkestan, wherever there is no other possible route, or in places where to advance one mile would otherwise require a twenty-day detour.

The sensation one has when one stands on one of these bridges and looks down to the bottom of the gorge, where there is usually a river flowing, can be compared to that of looking down from the top of the Eiffel Tower, only many times more intense; and when one looks up, the tops of the mountains are out of sight—they can only be seen from a distance of several miles.

Moreover, these bridges hardly ever have a handrail, and they are so narrow that only one mountain packhorse can cross at a time; furthermore, they rock up and down as if one were walking on a good spring mattress — and I will not even speak about the feeling of uncertainty as to their strength.

For the most part they are held in place by ropes, made from the fiber of the bark of a certain tree, one end attached to the bridge and the other fastened to some near-by tree on the mountainside or to a projection of rock. In any case, these bridges are not to be recommended even to those who in Europe are called thrill-chasers. The heart of any European crossing these bridges would sink, not into his boots, but somewhere still lower. (pp. 149-150)

As these stories unfold, Gurdjieff undertakes the task of answering the nine questions which were most often put to him in the course of his teaching:

What remarkable men have I met?
 What marvels have I seen in the East?
 Has man a soul and is it immortal?
 Is the will of man free?
 What is life, and why does suffering exist?
 Do I believe in the occult and spiritualistic sciences?
 What are hypnotism, magnetism and telepathy?
 How did I become interested in these questions?
 What led me to my system, practised in the Institute bearing my name? (p. 30)

As though that in itself was not already a fascinating set of themes, Gurdjieff also imparts to the reader seven sayings handed down from antiquity, each of which formulates one aspect of objective truth.

Each chapter is a mixture of adventure, philosophy, and biography. Although it is far from being an autobiography, it gives a marvelous insight into the nature of the man and some idea of those forces that helped to shape him. This vivid and stimulating picture is probably the only information available about Gurdjieff's early life and the sources of his knowledge.

But whatever else this book may be, at its foundation is the expression of an extraordinary system of esoteric ideas dealing with the spiritual growth of man. The principle goal of this system is the development of man's latent psychological possibilities. Gurdjieff's remarkable men, to one extent or another, either

exemplify such a development or uncover the means for actualizing such possibilities. Their search on the road to fulfilment, their discoveries and the subsequent philosophies which they formulate reveal a great deal of the material on which the Gurdjieffian system is based. But this is no cerebral psychological thesis; here these ideas are put forth in a setting as adventuresome and exciting as the system itself implies them to be. Gurdjieff gives us a picture of what could be, not through theory or advice, but by example.

In Gurdjieff's father, for instance, one sees the realization in man of an "I" — a permanent, reliable and enduring entity — an attribute which is one of the ultimate aims in the system. Through Bogachevsky, who formulated a code for Objective Morality, is revealed principles to guide the man seeking to acquire higher states of consciousness. Vitvitskaia, who at one point stood on the brink of moral ruin but nevertheless developed into a woman "such as might serve as an ideal for every woman," is a beautiful illustration of the fact that this system does not call for improvement of earthly values of man but rather the creation of a spiritual existence independent of one's station in life. And Karpenko, whose aim was to be able to live "as designed from Above and as is worthy of man," exemplifies worthiness of a supra-normal nature. Through this book is revealed a vista for aspiration rarely paralleled in fact or fiction.

Still, without question, the most remarkable man is Gurdjieff himself. Not that Gurdjieff uses his writing for self-aggrandizement. On the contrary, he goes to great lengths to give credit where credit is due and invariably credits others with the responsibility for his own achievements. Nevertheless he appears as a paragon of great resources, intelligence and imagination. Because of his flexibility, talent and untiring ambition, we see him cast variously as carpenter, gunsmith, railroad stoker, engineer's overseer and interpreter, guide at the Egyptian pyramids, and on and on. In the epilogue, the Material Question, Gurdjieff tells how he financed the operation of his Institute for the Harmonious Development of Man. We see Gurdjieff almost singlehandedly running a most unique enterprise.

Gurdjieff had unflagging willingness to hazard any and all conditions to bring his search for objective knowledge to fruition. Through his toils and sacrifices, Gurdjieff became a channel through which sacred knowledge from antiquity reached the twentieth century. In his role as a teacher, Gurdjieff used the knowledge which he codified from many sources to synthesize a system which provides the means for man's development of Being, a permanent "I," higher states of consciousness, and all that these imply. Gurdjieff

has composed a mighty structure by augmenting these beautiful stories with this counterpoint of esoteric ideas.

This book provides indubitable testimony that there is a summit of achievement towards which man can strive. When a man as remarkable as Gurdjieff writes about men he considers remarkable, the results are wondrous.

From my point of view, he can be called a remarkable man who stands out from those around him by the resourcefulness of his mind, and who knows how to be restrained in the manifestations which proceed from his nature, at the same time conducting himself justly and tolerantly towards the weaknesses of others. (p. 31)

All and Everything

G. GURDJIEFF

FIRST SERIES:

BEELZEBUB'S TALES TO HIS GRANDSON

\$8.95

SECOND SERIES:

MEETINGS WITH REMARKABLE MEN

\$5.95

Gurdjieff explores man's latent possibilities on every level. After mercilessly destroying the beliefs and views that centuries of miseducation have rooted in man, he goes on to offer the material required for the creation of harmonious being and the attainment of higher states of consciousness.

Please send your orders (pre-paid — no charge for postage) to:
PSYCHEDELIC BOOK SERVICE, BOX 171, New Hyde Park, N.Y.

Four Poems

FROM *The Children of Ourselves* by Ben Goldstein

A MOMENT OF SILENCE

In the hotel of my heart
I inhabit four chambers
Pulsing, beating, surging
The nomadic corpuscles of my blood
Tumble down arteries
Pass into capillaries
Branch into the infinitesimal
And find the infinite

I once was separate, distinct
Like a gray patch on a
White paper
Isolated, alienated, alone
Until I began to look for the borders
Of self
Began to try to grasp the
Gray shabbiness of my life
I searched in the streets at dark
In the curious confines of my bed
In others minds
And each path beckoned me homeward
Inside

Nerve endings, tingling, exploding
Shooting up my spine
My brain coming
Bursting in light
All concepts ripped from me
Like a child ripped from its mother's womb
Passing through abstraction
I flew apart
And in that moment listening to the silence
I became whole

THE JOURNEY INTO ECSTASY

Once upon a moon
 the night was part
 of the day
 the light
 before the phantasms of life
 The weariless winds had not yet been
 formed
 The energy of the egg had not yet been
 g-e-n-e-r-a-t-e-d
 Only a presence existed in that great sea of silence
 a
 prelude
 to the
 ensuing concerto
 Spewed forth in unerring multiplicity
 came the ylem
 the source of all being
 the children of ourselves
 threading out their own bodies
 harmonically attuned
 to
 mind
 Like some
 infinitely dimensioned mobius strip
 they twisted and turned themselves
 into solidity
 without losing their original nature
 And so we find ourselves
 perfectly narrated in 10 billion neurons
 Witness to the primordial act of creation
 stamped
 Psychedelicately in the synapses of consciousness

ONE OF THOSE DAYS

The heart within was my goal
 as I surged through
 the
 innermost vessels of my mind
 To use all my senses on the machinery
 of my existence
 Filled me with an unexpressible ecstasy
 My body pulsed
 with the beat of my heart
 I could hear the auricles and ventricles
 filling up
 and emptying
 The valves made a soft clicking sound
 I felt the fibers of my muscles
 s-t-r-e-t-c-h-i-n-g
 and
 recoiling
 I flowed through my aorta and ran the gamut
 of my body
 returning to my heart.
 I swayed and reeled in inner contemplation
 I was floating through orbs unknown
 The sun of phosphorescence burst to my left
 the golden sun
 the purple moons
 the turquoise stars
 the infinite lights
 All were part of me
 and I of them

I SIT AND THINK I'M THE BUDDHA

I sit and think I'm the Buddha. And I guess I am . . . but I only recognize it . . . when I'm not thinking, not recognizing, not being, not not being. A jewel radiates within me everywhere the same . . . the world separate and inseparable in a universe of phantasms.

Action resides from past to future it has no place in the imperceptible now. Light is the only filler of the motionless moment.

Perceiving the dissolution of the material into waves, my mind begins restlessly to grope to control the energy patterns around me. The lightbulb stands out in its transparent stability against the pulsating wall. If mind can perceive its organic unity can't being manipulate itself? I try to make the lightbulb explode. Doubts well up in me. Bulbous indecision echoes its own contriving.

A pebble dropped in water expands in rippling pulses through its own body. A diamond tapped incorrectly shatters to bits. How much more perfect is the universe pronouncing itself in continual becoming, everywhere the same, everywhere different. Every fabrication organic or not partakes in change, the movement of creation spontaneously evolved in being.

In a perfectly synchronous universe the fluttering of a leaf resounds throughout. In the universe of suchness objects are harmoniously orchestrated. The world of now is implicitly itself. The within of things declares itself in its own radiance undisturbed by the questions of time and the fruits of action. Disregarding my egocentric will for power its perfection leaves me separate and alone like a raving maniac trying to crush the life from a drop of dew.

My mind flashes through the sequence of my insolence in Eden. The question is not possible. How may one desire power persist in longing and yet take part in the most lucid of jewels, the universe. I succumb seeking release from selfhood, self conscious conception, desire. My body and the room flow joyously into one another.

I falter, look back at the bulb. The glass harboring a reflection of the window brings on vague thoughts of birth and death, creation and destruction, the phantasms of life and the path of selfless action.

Flashback to a mind continually beset by considerations. My question becomes my answer. Being inherently manipulates itself. I drift downstream through veins, arteries, capillaries into the clarity of understanding. An inner smile of purity holds me as a small piece of plaster falls on the bed.

BOOK REVIEWS

THE ADDICT AND THE LAW
By Alfred R. Lindesmith. Bloomington, Ind.: Indiana University Press, 1965. Pp. xiii + 337. \$7.50.

Legal policy is not forged in a vacuum. The materials on which it relies, and the guideposts which orient it, vary with the structure and the ideological climate of a society. It can be assumed, though, that in all civilizations, ancient and modern, the interstices of the legal framework were filled with "public opinion" emanating from custom and folkways. As an explorer of social conduct the social scientist, since Herbert Spencer's time, has increasingly contributed to legal policy, notably in the United States. Here the benefits he has provided for legislators, appellate judges, and upper-level administrators are too numerous to detail. Suffice it to mention the painstaking research as to the effects of capital punishment and segregation, or of the minimum wage on the labor market, and, in the field of procedural reforms, the analytic study of such problems as electronic eavesdropping, securing counsel to the indigent, releasing indigent defendants without bail during trial, appointing rather than electing the judiciary, summoning blue-ribbon juries. It was a natural step in this development that sociologists began to investigate the legal subject of drug control.

Dr. Lindesmith, a professor of sociology, clarifies the issues involved on a broad background of statistical surveys, including Great Britain, Israel, and Japan; examines the motivation of the attitudes taken pro and con by judges, administrative officials, patrolmen,

organized medicine, and the people at large; interprets the so-called doctor cases decided by the Supreme Court; appraises the narcotic clinics and self-help clubs such as Synanon; deals with the treatment of narcotic offenders in the courts and prisons and comments on the inequality of law enforcement according to social status. He finally draws his conclusion in favor of transfer of authority from "the police" to the medical profession.

In contrast to the heated debate often indulged in when matters of moral concern are pursued, the discourse is comfortably air-cooled by sober reasoning free of self-righteous rhetoric and—also on account of ample bibliographical references to opponents of his cause and the author's candid admission of his own biases—disarmingly persuasive.

Well aware of the obstacles to reform but confident that they can be surmounted, Dr. Lindesmith designs a gradual program of entrusting the addict—a diseased person, not a culprit—to the physician whose duty it is to alleviate pain where cure does not seem within reach. The time to begin is now, notwithstanding the filibustering claim that "more research is needed." Even today the following "aims" concerning the addiction problem as a whole "would probably be agreed upon as desirable by all parties in the current controversy:

- "1. Prevention of the spread of addiction and a resultant progressive reduction in the number of addicts.
- "2. Curing current addicts of their habits insofar as this can be achieved by present techniques or by new ones which may be devised.

- "3. Elimination of the exploitation of addicts for mercenary gain by smugglers or by anyone else.
 - "4. Reduction to a minimum of the crime committed by drug users as a consequence of their habits.
 - "5. Reducing to a minimum the availability of dangerous addicting drugs to all non-addicts except when needed for medical purposes.
 - "6. Fair and just treatment of addicts in accordance with established legal and ethical precepts taking into account the special peculiarities of their behavior and at the same time preserving their individual dignity and self-respect."
- The author continues the enumeration with postulates which in his view are implied in the preceding "aims":
- "7. Antinarcotic laws should be so written that addicts do not have to violate them solely because they are addicts.
 - "8. Drug users are admittedly handicapped by their habits, but they should nevertheless be encouraged to engage in productive labor even when they are using drugs.
 - "9. Cures should not be imposed upon narcotics victims by force but should be voluntary.
 - "10. Police officers should be prevented from exploiting drug addicts as stool pigeons solely because they are addicts.
 - "11. Heroin and morphine addicts should be handled according to the same principles and moral precepts applied to barbiturate and alcohol addicts because these three forms of addiction are basically similar."

It does not detract from the importance of the book as legislative material in the fight for reform that Dr. Lindesmith, like the majority of writers who grapple with this bewildering legal, medical, and social problem, fails to appreciate the refinement which the term "addiction" has recently undergone. His concern is "addiction to opiate drugs and their equivalents," to the exclusion of non-habit-forming and yet legally restricted substances, on the ground "that they cannot intelligently be discussed together." In a chapter on marihuana he tries to argue the point. The precise issue, however, is by no means the medical question whether the regulation and, in particular, the punitive treatment of the use of certain drugs are based on "myth" but whether they are supported by laws valid under the Constitution of the United States. Narcotics and psychedelics, yoked to the same or similar legal prohibitions and, though differing "substantially," allied in the struggle for humanizing amendments, should indeed have been conjoined in the discussion of "The Law" while the conventional wax figure of "The Addict" should have been replaced by a truer-to-life image. Just as "insanity" has lost its medical meaning, "addiction" must, and soon will, be dropped from scientific terminology. A World Health Organization committee opened a way when, in 1964, it suggested a new term, "drug dependence," defined as a state arising from repeated — periodic or continual — administration of a drug. The dependence, which may be physical or psychological, varies with the type of agent used, as well as the personality type of the user, the dosage, the general culture and the specific setting in which the drug is administered, and many other factors. In any case, "addictive" in the conventional sense is unfit as a single criterion for a reform program.

Despite these reservations, the

book whose burden might be expressed by the imperative, "Thou shalt not punish disease!", outranks most of its kind.

ROY C. BATES

DIE EXPERIMENTELLE PSYCHOSE

Ihre Psychopharmakologie, Phänomenologie und Dynamik in Beziehung zur Person by Hanscarl Leuner. Berlin / Göttingen / Heidelberg: Springer-Verlag, 1962. Pp. 275; 20 illust. DM 69.60 (\$17.50).

Dr. Leuner is the director of the psychotherapeutic department at the University of Göttingen Hospital for Neurological and Psychiatric Diseases, and is one of the leaders of the growing number of European psychiatrists who advocate the use of LSD and related substances as an aid in psychotherapy. His book is a detailed, definitive, and authoritative work which should be read by anyone who is professionally interested in the application of LSD as a therapeutic tool. A good idea is given of the thoroughness and carefulness of Dr. Leuner's clinical research with these drugs since 1955. The material presented in this book has been supplemented by the reviewer's personal observations when he trained under Dr. Leuner in Göttingen for three months in 1964.

The book begins with a survey of the history of substances which produce an experimental psychosis. There is a discussion of the chemistry, pharmacology, and psychopharmacology of hashish, mescaline, LSD, psilocybin, the tryptamine derivatives (bufotenine, dimethyltryptamine, and diethyltryptamine), harmine, atropine-like compounds (e.g. Ditrin), adrenochrome, adrenolutin, and butoxamine. Throughout the book there is frequent comparison with the previous German re-

search with hashish and mescaline (especially the work of Kurt Beringer in the 1920's and 1930's). The phenomena common to most of these substances are described (e.g. autonomic sensations, motor disturbances, visual and auditory changes, distortions of body image, depersonalization, changes in time and space perception, synesthesias, paranoid thinking, and cosmic-mystical experiences). There is a discussion of dose, tolerance, spontaneous reoccurrence of the drug-state days or weeks after the actual session, the heightened suggestibility produced, possible use as a diagnostic aid, the problem of testing subjects while in the drug state, and the variation in the time of onset and the duration of action of the different drugs.

Much use is made of clinical material with numerous examples from case reports. Results of drug administration to 70 persons between 1956 and 1962 are reported. Of these, 56 were patients who had completed their treatment and 38 or 68% were considered cured or much improved. These 56 patients had a total of 1369 drug sessions or an average of 24 sessions per patient. The average length of treatment was one-half to one year with treatments usually at weekly or bi-weekly intervals. Cases treated were severe neurotics of many kinds, character disorders, alcoholics, and borderline psychotics. Successful outcome (cured or much improved) was reported for the majority of the neurotics, alcoholics, and character disorders, but there was a notable lack of success with borderline psychotics, homosexuals, and hysterics.

A detailed description is given of the method used in administering the drugs. The patient is told before the start of his treatment that the drug will enable him to re-live emotional experiences from his past and to release unconscious material. He is encouraged to enter fully into the experience at the time, but to re-

member as much of it as possible for later analysis. Each patient has a single room, which is kept quiet and darkened. Patients are free to leave the room to visit the toilet or walk in the corridor, but most of them prefer to spend the time of the drug experience lying in bed. Doctors and nurses, who remain on call outside the rooms, can be signaled at any time if the patient feels the need of support, and the patient's doctor makes rounds at regular intervals. Patients may use this time to get reassurance or help with frightening experiences or to discuss the meaning of the content. Up to five or six patients may be undergoing the treatment on any given day. Treatment starts between 8 and 9 a.m. when LSD or psilocybin is given by mouth or by injection. Although Dr. Leuner has experimented with doses of LSD as high as 730 micrograms, he usually favors doses of LSD from 10 to 150 micrograms and of psilocybin from 2 to 15 mg; and as a rule he starts a course of treatments with a relatively small dose to judge the effect. In the early experiments the drug reaction was allowed to run until 6 or 7 p.m., but the current practice is to terminate the LSD experience at about 1 or 2 p.m. by giving up to one gram of an oral barbiturate (Medinal).

Discussions with the therapist during the session are one way of remembering the experience afterwards, but tape recordings may also be used. In the day or days after the session each patient writes up an account of his experience and then discusses the contents individually with his therapist between sessions. Since this book was written, Dr. Leuner has been experimenting more actively with the use of a group discussion on the day of the experience from about 4 to 6 p.m. for all patients who received treatment on that day. These group therapy sessions are very meaningful to the participants because they receive

clarification and understanding from the sharing of their experiences in an open, non-defensive, and very intense way.

Dr. Leuner's method of analysis and interpretation can best be understood from the detailed record of data which is presented for four consecutive LSD sessions with one patient. The patient's comments at specific times throughout each session are recorded with the corresponding observations by Dr. Leuner about the material. Each session is then analyzed. It can be seen how some of the same themes repeat and develop in different sessions and how insight is gained and explained. The interconnections of the unconscious material both to itself and to the conscious life and past history of the case is discussed and analyzed in a fascinating way.

An interesting chart is shown which plots the intensity of the typical LSD experience in terms of the type of experience and level of consciousness versus the time course of the reaction. Five phases are distinguished: 1) the initial exploratory phase which begins about 30 to 60 minutes after the LSD is given and which is characterized by autonomic symptoms; 2) the oneiroid-psychotic phase which reaches its height as an extreme psychotic period from the second to the fourth hour and which is ended by barbiturate administration during the fifth hour; 3) The oneiroid after-phase which lasts from about the fifth to the tenth hour during which the patient is encouraged to work on what has been experienced in phase 2; 4) The final exploratory phase which may be felt for the next one to two days or even up to 14 days in the case of extremely high doses. The psychodynamics and range of content in each phase (but with most emphasis on phases 2 and 3) are discussed in detail.

The goal of Dr. Leuner's LSD-therapy or *psycholysis* (his term) is

to achieve emotional insight and behavior change through the existential experience of unconscious material which is expressed through symbols associated with very meaningful affect. It is postulated that the experimental psychosis produced by LSD is a regression to a more primitive psychological state in which repressed memories and unconscious material can be re-experienced and abreacted. The kind of material which is experienced is described and categorized. It is pointed out that this is dependent upon the personality and past experience of the patient and upon the drug dosage used. The setting under which the drugs are given is fairly constant for all patients. Dr. Leuner is very interested in the meaning and psychological determination of the symbols which are described by his patients. His previous and continuing work on cathartic picture imagination uses a method which produces hypnagogic imagery from the unconscious without the use of drugs. His work with LSD has expanded and deepened this interest because of the richer and more intense imagery produced. His framework of interpretation is basically Freudian, but he does not hesitate to use Jungian terminology and concepts if they fit the data better. Philosophically, he finds the phenomenology of Husserl, Heidegger, and Jaspers most appropriate.

At the end of the book the implications of this research for the question of the genesis of schizophrenia is discussed. The similarities and differences between the LSD state of experimental psychosis and what is observed in the clinical course of schizophrenia are noted. The adrenochrome and taraxein evidence for the autotoxic hypothesis is reviewed. Although no definite conclusions are drawn, the work reported in this book would indicate that biochemical research should have a promising future in regard to delineating the

role of toxic-endogenous, genetic-somatic, and psychological factors in the origin of schizophrenia.

The impressive therapeutic success rate of 68% would have more meaning if one knew the rate of success in a comparable control group of patients with similar diagnoses. Ideally such a control group should have spent the same amount of time with a therapist without the use of LSD. It would also be interesting to know the outcome in a matched control group which received no therapy or LSD. It is recognized that many of the patients undertook LSD-therapy as a last resort when other methods had already been tried and failed. The results reported show promise and deserve future attempts at replication, but a control group would add considerable persuasive power to the validity of the data as scientific evidence.

In the particular treatment setting described, attenuation of the LSD state with barbiturates was desirable because this enabled the patients to be left alone for the most part after the fifth hour, and group therapy was possible by the end of the afternoon. It might be asked whether the full usefulness was thus obtained from each drug session when part of the potential experience was not allowed to develop.

The difficulties encountered because of "extreme psychotic reactions" when high doses of LSD were used (above 200 micrograms) might have been avoided if patients had not been left alone. With the use of high doses in a supportive setting, cosmic-mystical experiences might have been produced more often. Although the possibility of such experiences are mentioned on one page of the book, they did not occur frequently. Perhaps this shows the important suggestive power of the preparation and expectation of the patients. The possible therapeutic benefit of cosmic-mystical or ego-

transcendent experiences is an area not explored or developed in this book. It would be a testable hypothesis that the experience of these states of consciousness may be enough to enable the patient to learn new methods of subsequent behavior.

An English translation of this important and valuable book should be made without delay. Not only could it be used as a guide to the German literature on research with hashish and mescaline, but it also would be useful for the practical suggestions on the use of LSD as an aid to psychotherapy in a mental hospital setting, for the information on the range and content of reactions to be expected with different dosage levels, and for the theoretical discussion of the analysis of the symbolic material. There is much yet to be learned about the most effective psychotherapeutic application of these drugs. This book is a significant contribution to that endeavor and perhaps will become a classic in this field.

WALTER N. PAHNKE

NEURO-
PSYCHOPHARMACOLOGY
Vol. III

Proceedings of the Third Meeting of the Collegium Internationale Neuro-Psychopharmacologicum. Ed. by Bradley, P.B., Flügel, F., & Hoch, P.H. Amsterdam: Elsevier, 1964. Pp. 607. \$25.00.

This volume, like its two predecessors, contains technical papers on the following topics: I. Methods of comparison of behavior changes with drugs in animals and man. II. Effectiveness of drugs in relationship to psychological and social forms of treatment. III. Biochemical mechanisms of drug action. IV. Drug action on microstructures. V. Clinical and experimental studies with new drugs. VI. Ten years of psychopharmacology. The articles of special inter-

est to readers of the *Psychedelic Review* are the following: H. Leuner: "Zur Überlegenheit einer durch Halluzinogene geförderten Psychotherapie (Psycholyse)". C. Lambert: "The value of intravenous phenylcyclidine (Sernyl) in the treatment of neurosis." A. Balestrieri: "Hallucinatory mechanisms and the content of drug-induced hallucinations." S. Szara: "Effect of psychotropic tryptamine derivatives on the regional distribution of serotonin in the brain." D. N. Teller & H. C. B. Denber: "Studies on Mescaline XV: The influence of mescaline on the free amino acid pattern of serum." H. Isbell *et al.*: "Tolerance and cross-tolerance to scopolamine, JB 318, and LSD 25". J. Delay *et al.*: "Etude polygraphique des variations de la glycémie au cours des psychoses expérimentales (Psilocybine)". H. Nakajima: "Interaction au niveau des récepteurs thémiques centraux, du LSD 25 et de certaines drogues psychotropiques."

R. M.

Ergoline Alkaloids in Tropical Wood Roses. This is an article by John W. Hylin and Donald O. Watson, of the Hawaii Agricultural Experiment Station, which appeared in *Science*, Vol. 148, April 23, 1965.

Abstract: Extracts of *Argyrea nervosa*, a tropical wood rose, contain appreciable quantities of ergoline alkaloids tentatively identified as ergine, isoergine, and penniclavine together with related substances. "The seed of *A. nervosa* is the best plant source of ergoline alkaloids discovered." It contains approximately 3 mg. of alkaloidal material per gram of seed; the seeds of the morning-glory "Heavenly Blue" and "Pearly Gates" contain 0.8 and 0.4 mg. respectively of ergoline alkaloids per gram of seeds.

R. M.

The Psychedelic Experience is a mimeographed publication of Borderland Sciences Research Associates

Special discount on

UTOPIATES

The Use & Users of LSD-25

By Richard Blum & Associates

Foreword by Nevitt Sanford

Subscribers to **THE PSYCHEDELIC REVIEW** may purchase copies of this new book — which is reviewed in this issue — at the special price of \$6.20 (vs. the regular price of \$8.00). This offer is limited and orders will be processed on a first-come, first-served basis.

"It is to be noted," writes Nevitt Sanford in his outspoken Foreword, "that we have in LSD use what amounts to a social movement. Those who accept the drug . . . have an ideology, one that accents the values of the inner life, of personal freedom, of mystical experience, and of love. The authors suggest that this ideology can be largely understood as a reaction against or, better, a withdrawal from major trends in contemporary society. More and more people 'want out,' and this includes, strikingly enough, as the study shows, people who have been successful in the society and have received the rewards that it promised them."

UTOPIATES is a unique book. It tells for the first time about the people and the issues involved in the use of the most powerful of all known mind-altering drugs: LSD-25. The authors of this successful new book examine in great detail the relation of LSD use to our religious heritage, our social and cultural backgrounds, our aims, our personalities, and our basic assumptions about what we want from life.

Order now, directly from Atherton Press.

ATHERTON PRESS, 70 Fifth Avenue, New York 10011

Send me _____ copies of UTOPIATES at the special price of \$6.20 prepaid. Enclosed is my _____ check, _____ money order.

Name _____

Address _____

City _____ State _____ Zip _____

bars, and even mystical temples of the "Society of the Immortal Light."

The tale is not told well. There is a tediousness about most of it that is only resolved by a quickening of the sociological imagination as we see the story out to its Christian

heroic end. What gives one an occasion to ponder is the fantastic backdrop to the story. Charbonneau has sketched a paperback vision that picks up the psychedelic controversy to a new, not quite absurd, level.

G. M. W.

BOOKS RECEIVED

- Friedlander, Ernst: *Psychology in Scientific Thinking*: New York, Philosophical Library Pp. 143. \$4.75
- Barton, Helen B.: *Nervous Tension, Behavior and Body Function*: New York, Philosophical Library Pp. 336. \$6.00
- Hayden, D. & Alworth, E. P.: *Classics in Semantics*: New York, Philosophical Library Pp. 382. \$10.00
- Richter, Daniel, ed.: *Residu: The New Review of Hip Thought Writing & Art*: Athens, No. 1, Spring 1965. (Appears quarterly). Subscriptions & orders to Residu/Richter, 2 Daphnomilis-Athens 706, Greece Retail price per issue \$1.75
- Daumal, René: *La Grande Beuverie*: Collection Metamorphoses VII. Gallimard Pp. 156 (no price listed)
- Cavanna, Roberto & Servadio, Emilio: *ESP Experiments with LSD 25 and Psilocybin*: Parapsychological Monographs, No. 5, Parapsychology Foundation, Inc., New York Pp. 123
- Pincher, Chapman: *Not With a Bang*: New York, New American Library Pp. 256. \$4.95
- Terron, Luis Mendiola: *El Hombre Y Lo Desconocido*: La Angustia, Las Dos Esquizofrenias, La Experiencia Mistica: Mexico, D.F., Editorial Orion Pp. 261 (no price listed)
- Owens, Claire Myers: *Discovery of the Self*: Boston, Christopher Publishing House Pp. 334. \$3.95
- Owens, Claire Myers: *Awakening to the Good; Psychological or Religious?*: Boston, Christopher Publishing House Pp. 273. \$3.75

TO THE EDITOR

The family of the late Aldous Huxley has authorized me to prepare an edition of his letters for publication by Harper & Row of New York and by Chatto & Windus, Ltd., London. I should be most grateful if any owners of letters from Aldous Huxley would be kind enough to send them (or copies) to me for this purpose. Original letters would of course be treated with the greatest care, and after being copied would be returned immediately.

Sincerely yours,

Grover Smith
Associate Professor of English
Duke University
Durham, North Carolina

To the Editor:

Have any chemists looked for psychedelic substances in locoweed? The name is apparently taken from the Spanish "loco," meaning "mad" because of the behavior it induces in animals who have eaten the plants.

The plant is a member of the legume family and found chiefly in the Western United States. Several species have been identified as poisonous to horses, cattle, sheep and goats. The U. S. Department of Agriculture has listed the plant in Farmers' Bulletin No. 2106, August 1964 titled "16 Plants Poisonous to Livestock in the Western States" but the toxic chemical is not identified, and I have not been able to find any reference to chemical work with the plant.

The effect it has on animals is quite interesting. They apparently lose their sense of direction

and walk with an irregular gait; they are nervous, weak and withdraw from other animals. They may react violently when disturbed. "Locoed" horses seldom recover completely and are considered useless for saddle or work animals so are usually destroyed by their owner. Most animals suffer a weight loss and are therefore of no value for beef. Losses caused by abortion are frequently high when large amounts of the weed are ingested (could this be another ergot compound?).

Animals ordinarily will not eat the weed unless feed is scarce, but once they start eating it, they seem to acquire a taste for it termed the "loco habit" and will seek out the plants even when other forage is available. Symptoms of poisoning will usually appear within two to three weeks of continuous grazing on the plants.

I could not find any reference to the effect of locoweed on people. The USDA claims that locoweeds are poisonous during all stages of growth, and may be dangerous throughout the year. All parts of the plant are toxic, even after being stored in dry form for two to three years.

The following list is from the USDA Bulletin and is included for anyone who cares to search out more information about the plants.

Common Name	Botanical Name	Distribution
White loco	Oxytropis lambertii	Montana and North Dakota, south to Arizona, New Mexico, and Texas

Purple, or woolly loco	Astragalus mollissimus	South Dakota to western Texas to New Mexico
Blue loco	A. lentiginosus	Eastern Washington, Idaho, Utah, Colorado, Nevada, and California
Bigbend loco	A. earlei	Western Texas and Southern New Mexico
Western loco	A. wootoni	Eastern Arizona, southern New Mexico, and southwestern Texas

Sincerely,
Marjorie B. King
Fair Oaks, Calif.

(Editor's Note)

On the American desert are horses which eat the locoweed and some are driven mad by it; their vision is affected, they take enormous leaps to cross a tuft of grass or tumble blindly into rivers. The horses which have become thus addicted are shunned by the others and will never rejoin the herd. So it is with human beings: those who are conscious of another world, the world of the spirit, acquire an

outlook which distorts the values of ordinary life; they are consumed by the weed of non-attachment. Curiosity is their one excess and therefore they are recognized not by what they do, but by what they refrain from doing, like those Araphants or disciples of Buddha who were pledged to the "Nine Incapabilities." Thus they do not take life, they do not compete, they do not boast, they do not join groups of more than six, they do not condemn others; they are "abandoners of revels, mute, contemplative" who wait to be telephoned to, who neither speak in public, nor keep up with their friends, nor take revenge on their enemies. Self-knowledge has taught them to abandon hate and blame and envy in their lives, and they look sadder than they are. They seldom make positive assertions because they see, outlined against any statement, as a painter sees a complementary color, the image of its opposite. Most psychological questionnaires are designed to search out these moonlings and to secure their non-employment. They divine each other by a warm indifference for they know that they are not intended to forgather, but, like stumps of phosphorus in the world's wood, each to give forth his misleading radiance.

From: The Unquiet Grave
A Word Cycle.
by Palinurus (Cyril Connolly)
Viking Press, N. Y., 1945.,
P. 32-33.

NOTES ON CONTRIBUTORS

BENJAMIN GOLDSTEIN is a 25-year-old poet, residing in New York City.

GEORGE MORRIS CARSTAIRS is a Fellow of the Royal College of Physicians and Professor of Psychological Medicine at the University of Edinburgh. A world authority on the Epidemiology of psychological illness, he has been a Reith lecturer on the BBC.

HEINZ KUSEL, who spent seven years in the Peruvian Upper Amazon region, presently teaches art in California.

RONALD D. LAING is a practising psychoanalyst in London, Director of the Langham Clinic for Psychotherapy, author of *The Divided Self* and *The Self and Others*.

WILLIAM H. MCGLOTHLIN, Ph.D., is a psychologist associated with the RAND corporation, presently engaged with Sidney Cohen in a research program to assess the effects of LSD on attitudes in normal subjects.

TERRY WINTER OWENS has been studying the Gurdjieff system under Willem Nyland.

HENRI MICHAUX is perhaps the most eminent French poet and painter of our day. In a recent exhibition of his paintings at the Musee de l'Art Moderne one whole room was devoted to his mescaline drawings. He has published three books on psychedelic experiences, of which the last and best, *L'Infini Turbulent*, has so far not appeared in English except for the extract reprinted in this issue.

WILSON VAN DUSEN, Ph.D., is a clinical psychologist at the Mendocino State Hospital in California. He has published articles on the relationship between LSD and Zen.

REVIEWERS

WALTER N. PAHNKE, M.D., Ph.D., is a psychiatric resident at the Massachusetts Mental Health Center in Boston.

ROY C. BATES, who also contributed to the fourth issue of the *Review*, is a member of the Massachusetts and New York Bars.