Psychedelics and the Future

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Those older men and women exercising structural and moral authority (Paterson, 1966), often called collectively the Establishment, have been alarmed by psychedelics for rather less than five years. Their attitude might be described in the terms Aneurin Bevan used for an old man approaching a young bride: "... fascinated, sluggish, and apprehensive." The impetuous young, however, always at the heart of any anti-establishment movement, rush in with all the rash ardor of Romeo and Juliet. Medical men, though less worried about morals or legality, are properly concerned with the health of the young lovers, and have been debating, not without acrimony, whether the entrancing psychedelic bride is a delicious and sexy houri or a poxy doxy.

This fascination of older folk with psychedelics and the climate attached to them becomes evident in the propaganda devoted to them by many government agencies, professional associations, and other interested people. While this has been aimed ostensibly at discouraging the young from taking or continuing to take these substances, the means employed seem unlikely to achieve such an end. The cause of pornography has frequently been well served by those whose strident warnings abjured others from seeking what, until then, they had hardly noticed. Public men have, quite unwittingly, by their ignorance, evasion, and downright lies, egged on their children and grandchildren to explore these experiences. It appears sometimes as if they were trying to discredit themselves in the eyes of the young. It may not be their intention, but it seems to be their achievement.

Our connection with this intergenerational controversy began about sixteen years ago, when one of us, after a troubled night, was standing at a table stirring a glass of water in which silvery white crystals were dissolving with an oily slick. Would it be enough or too much? He was uneasy: he would be disappointed if nothing happened, but what if the mescaline worked too well? Suppose he poured half of the full glass into an adjacent flower vase? He did not relish the possibility, however remote, of finding a small, but discreditable niche in literary history as the man who drove Aldous Huxley mad. His fears proved groundless. Although the bitter chemical did not work as quickly as he had expected, in due course it etched away the patina of conceptual thinking.

Much has happened since that smogless May morning in Hollywood. Neither Aldous Huxley nor he would have predicted that *The Doors of Perception* (1954) was going to have such an immense impact on an ever-increasing number of people. Those substances, then known as hallucinogens or psychotomimetics, and which he later called psychedelics (Osmond, 1957b), have, for good or evil, become far more

widely known and no longer the concern merely of the specialist and scholar. They are part of our vocabulary, a source of both vexation and inspiration.

Less than ten years after the senior author's spring visit to Hollywood, Pandora's box was unexpectedly opened. Since then, members of the Establishment have been sitting on the lid of the empty box, unaware that this posture is both undignified and futile. It is the fate of establishments to be taken by surprise in spite of ample and repeated warnings. Once they have become aware that something is amiss, they often act precipitately, with little forethought or caution, and transform a minor inconvenience or even possible benefits into catastrophe. There was plenty of warning that psychedelics were apt to be of interest to people and also to become more available so that this long-standing human taste could be indulged more easily. It required no gift of prophecy to recognize this, for history shows that man has been an inveterate experimenter with chemicals, usually derived from plants, that make him happier or livelier, or alter his perceptions and awareness. In his sumptuous and magnificent book *Soma: Divine Mushroom of Immortality* (1969), for example, R. Gordon Wasson, the mycologist-scholar, has shown convincingly that the *Rig Veda*, one of the oldest and greatest of man's religious works, devoted about one tenth of its collection of over one thousand psalms to celebrating the plant god Soma. Wasson, with wonderful persistence, caution, and intuition, makes a good case for soma being the mushroom *Amanita muscaria*, or fly agaric, the classic toadstool of the birch forests of the world. Psychedelics are a very ancient and influential human interest.

What has the Establishment been doing about them? If one had listened only to its members from a recent president on down, one might have been convinced that psychedelics had no future at all because of the development of ever-growing and increasingly specialized law- enforcement agencies to remove the nuisance permanently. In the past year or two, the tone has changed somewhat, along with other overoptimistic estimates. On the other hand, if one listened only to supporters of the psychedelic movement, one might be led to suppose that an age was borning in which from earliest childhood, and possibly the prenatal state, we would all be exposed to the delights and virtues of wholly beneficial substances. The facts do not support either of these extreme positions, but extreme positions rarely depend on facts. Long before the official Establishment had asked itself what sort of problem it might be facing, legislation was being prepared, bills hurriedly passed, statements of an alarming kind made, and vigorous legal and police action taken. This was not admirable, but it was no more admirable of the psychedelic movement to imply that there were scarcely any dangers attendant on these remarkable substances and that we should all hasten along the road to the "joyous cosmology," taking anything anyone offered, and trusting it would be enough, and not too much.

The Establishment's posture is not difficult to understand, for it is that of all establishments everywhere when faced with innovation. It consists in saying, "No, you don't. Father (or Grandfather) knows best. Be good and do as you are told, for if you don't, it will be the worse for you." Before planning and passing legislation or developing new policing procedures, it might seem prudent to assess the effectiveness of such actions, and consider whether police activities might not have unintended

consequences as bad as or worse than the evils to be remedied. This is especially true in the United States, where prohibition, with all its admirable intentions, merely provided a golden opportunity for gangsters to become multimillionaires and spread the habit the legislation was intended to curb. The most likely outcome of prohibition in the early twenties was that, since many people did not feel that drinking alcohol was immoral, even though it might have become illegal, the law would be widely subverted. Criminals would then have an opportunity to provide these disaffected citizens with their needs. The police would be liable to be corrupted, the law itself brought into disrepute, and because most people would come to feel that prohibition itself is a farce, they would tend to consider that the law is a racket, too. This is a high price to pay for an unattainable social benefit.

Other legislation aimed at preventing people from taking substances, such as psychedelics, that they want to take should surely be examined in this context. As we have noted, this is an interest that men have pursued for millennia with great persistence and in a variety of ways, ranging from self-inflicted tortures and austerities to taking dangerous substances. Drugs are only one of many possible ways of achieving these experiences, and are by no means the most objectionable from a medical viewpoint. From earliest times, psychedelics have been regarded as strange and sacred and have been part of many great religious ceremonies. They are certainly as enduring and interesting for mankind as alcohol, although, since the rise of modern agriculture, alcohol has been probably easier to obtain. On the other hand, cannabis has been used for many centuries. It may not be a simple matter to head off people's interest in psychedelics; it has not been easy to head off interest in alcohol. Had it been possible to prevent people from making alcoholic drinks, prohibition would have been feasible. As it was, everyone could make his own fermented drink in the bathtub, and before long, the well-meant laws to curb drinking had become meaningless and socially harmful.

In 1966, the government did not seem to have considered these early experiences much, and appeared to believe that by preventing Sandoz from manufacturing and distributing LSD to research workers, the problem would soon be resolved. Indeed, one of us was told by an aide of the late Senator Robert F. Kennedy that the ex-Attorney General of the United States was surprised to learn "that preventing Sandoz from selling LSD (which, of course, they were not doing, but giving it away only to accredited researchers) would not resolve the problem. "Even though Senator Kennedy was a young, active, and unusually well-informed man, he was ignorant of this, although he quickly acquired the necessary information. The elderly men who govern most countries apparently failed to ask or have impressed upon them the questions facing those who wish to control the use of psychedelics.

During World War II, British and American intelligence services briefed their generals by first giving an opinion as to what was most likely to happen, followed by a statement of what they considered the best possible outcome in the circumstances, and finally, the worst possible construction. The general officer, knowing the conclusion of his intelligence service, could then make his own decision, basing it on optimism, pessimism, or a middle way, as he saw fit. Suppose it had been our task to

advise statesmen on the future of psychedelic substances, what would we have told them, assuming that we knew that they were already more or less limited to a policy of control? From this point of view, the best possible thing that could happen would be for people to lose interest in psychedelics once and for all, and for the sources of supply to dry up forever. The worst that could happen for the Establishment would be for supplies of psychedelics to become greater and easier to make in a climate of sustained or increasing interest, thus producing a situation resembling prohibition at its worst.

How would these two extreme estimates relate to the most likely outcomes It would be surprising if an interest so long sustained ever disappears completely. Indeed, our age is one in which interest in these matters seems more likely to increase. Today, at least in North America and Europe, there are larger numbers of highly mobile young people, many of them fairly well-to-do, than ever before in history. Most have been reared with less severity than previous generations and have largely escaped the terrible blows that death, illness, starvation, and poverty frequently inflict on the young. They are sufficiently uncowed by the world to be highly critical of how it is run, and have the energy, time, and opportunity to express dissatisfaction and explore new ways of improving matters. Their education has taught them how to use libraries and other modern information-retrieval systems. Many of them became interested in psychedelics in the early sixties, and while this preoccupation may fluctuate, it seems unlikely that it will disappear completely. The interest of the Indians in drugs survived the full force of the Spanish Inquisition, and it is unlikely that even the severest legislators intend to emulate that mighty institution in policing their children and grandchildren.

In addition, with regard to the control of the substances themselves, more have been discovered and rediscovered during the past decade and a half than in any similar period in history. It seems likely that more will be found during the next ten years. Some of these will be discovered in plants and others synthesized. Every discovery makes it easier to suggest not only new places in which to look for active substances, but also new ways of making them. We predict that within the next twenty-five years, and perhaps sooner, simple processes will be discovered by which reasonably safe psychedelics can be made in any kitchen or basement with materials available in stores, pharmacies, and fields or gardens. Some believe the best way to avoid these dangers would be to stop all research on psychedelics. In our opinion, this would be objectionable, since these substances have great interest for psychology and psychiatry and since there is, as we have shown here, growing evidence of their therapeutic usefulness. It would also not succeed in stopping the clandestine experiments in the synthesis or use of these substances, for forbidden fruits not only taste sweeter, but develop an esoteric interest. Presumably this "occult" science, because it would be "illegal," would not be published in official scientific journals. A sort of underground science would develop, which at least would be deplorable, and might be very dangerous.

In our imaginary briefings, the statesmen would be told that the most likely outcome during the next decade would be that the interest in these substances would

be maintained, though it is likely to fluctuate from year to year. Although a number of new psychedelics will be discovered, there is no convincing evidence that the era of "bathtub" psychedelics has yet arrived, allowing them to be made in ease and safety at home. Should this occur, the resulting situation will resemble that of prohibition.

Statesmen must surely ask themselves whether it is wise to invent new crimes or inflate misdemeanors into matters of great importance. The roster of criminal law is large; by adding new laws that are difficult to enforce, respect for the law may be decreased. Certain kinds of new laws may be expensive luxuries that societies in the course of change simply cannot afford. We believe that the interest in psychedelics will be maintained in the foreseeable future. If police and similar agencies devote much of their energy to controlling the substances, the overt interest may become less conspicuous. Prosecuting people does not necessarily change their opinions, but may invest forbidden activity with glamour and make those undertaking it discreet. It is said that crime has been increasing greatly in recent years, and one wonders whether this is a propitious time to add a whole new series of crimes to the burden of an already overladen police and magistracy.

Already there are laws of such severity on the statute books that judges, juries, and police often shy away from using them, although, from time to time, unlucky people receive very harsh punishment, which seems unfair both to them and to their contemporaries. It seems unlikely that occasional severities will do much to change the general picture. However, in politics as elsewhere, men have rarely shown a sense of history or adequate foresight, and the same legislators who promise a tough line against psychedelics talk blithely about reducing the voting age to eighteen. If these statements are sincere, and they plan to continue their opposition to psychedelics when they have reduced the voting age, one wonders whether we are not becoming tired of politics.

In our opinion, the Establishment has behaved as establishments usually do, bolstered with the authority they possess by virtue of their social and political position. They have not been any less admirable than members of the psychedelic movement who claim that as a result of their experiences they have a deeper knowledge of the human heart and a greater understanding of the meaning of things. By their claims, their actions must be judged by a higher standard than the actions of the Establishment, which does not make such claims. If one asks whether mind-expanding experiences have increased the ability of members of the psychedelic movement to understand the views and fears of their elders more compassionately than they feel they themselves have been judged, we believe the verdict must be "not proven." Aldous Huxley once urged a leading figure in the psychedelic movement to remember that it is "important to do good stealthily." His excellent advice has not always been heeded. If indeed insights have been acquired as a result of psychedelic experience, they should be used for the general good rather than for personal ends.

In this controversy, medical men have tended to be ranged on the side of the Establishment. This is understandable enough, for they are frequently closely

associated with it, and often among its members. Unfortunately, they sometimes use their enormous medical authority to justify prejudices deriving not from medical knowledge, but from the social and moral climate in which they happen to live. This has occurred repeatedly throughout history, and the same error has been made by some of the most distinguished medical men.

An excellent example of this is provided by the case of Henry Maudsley, one of the most enlightened psychiatrists of his day, and for whom a leading mental hospital in London is presently named. In his fine paper "Masturbational Insanity," E. H. Hare (1962) notes that Maudsley wrote, "In the life of the chronic masturbator, nothing could be so reasonably desired as the end of it, and the sooner he sinks to his degraded rest the better for himself, and the better for the world, which is well rid of him." Hare comments on this, ". . . the besetting sin of the psychiatrist [is] a tendency to confuse the rules of mental health with morality." Maudsley's views were part of the conventional wisdom of his age. Even as late as 1892, the Dictionary of Psychological Medicine described the effects of masturbation as "moral and mental shipwreck, the whole nature is deteriorated.... mental faculties become blunted.... The miserable wretch would commit suicide if he dared, but rarely has the courage . . . and sinks into melancholic dementia." Writing in 1911 on the treatment and prevention of this grievous condition, Ivan Bloch stated, "In the treatment of masturbation, the methods of the older physicians who appeared before the child armed with great knives and scissors and threatened a painful operation or even to cut off the genital organs may often be used and often effect a radical cure." Psychoanalysts, too, were involved in this nonsense. Ernest Jones, the biographer of Freud, for instance, wrote in 1918 that neurasthenia derived from excessive onanism and seminal emission (Comfort, 1967).

Masturbation was of no interest to medicine until about 1720, following the publication in 1710 of a book called *Onania, or the Heinous Sin of Self-Abuse*, to tout a patent medicine. Indeed, in 1644, masturbation was recommended as a remedy against "the dangerous allurements of women." After the publication of Onania, the negative view taken up by medical men and educators became the source of some of the most harmful iatrogenic miseries, exceeded only by the great nineteenth-century pandemic of bleeding. Right up to the 1930S, in both England and the United States, extraordinary garments, a combination of straitjacket and chastity belt, were sold by makers of surgical and medical instruments to curb "the deadly vice of onanism."

What relevance has this to psychedelics? Medicine, in its views, is in tune with the morality of the age in which it is practiced, and indeed, has been more or less identified with morality for millennia. Medical men have to choose a middle course to avoid overidentifcation with the establishments of their day. Medical men who went along with the Nazi race theories are one dismal example of how current social values can destroy medical ethics. In the case of masturbation, physical and psychological injury was inflicted on at least six generations of children and adults. Panic and terror spread among parents who were urged to be ever alert to spot young masturbators. Children became morbidly preoccupied with this attractive but deadly vice which excited the grownups to such frenzy.

Perhaps we are about to indulge in yet another of these medicomoral autos-da-fé. The sequence of events is easy to spot. First, a few medical men associate themselves with a particular moral viewpoint that they consider has some medical importance. They soon find evidence, sometimes dubious, to confirm their convictions. Using this evidence, they begin to suggest solving the moral problem by medical means. In the psychedelic context, users have been infringing on the contention of the medical establishment that any pharmacological substances used on human beings lie within its bailiwick. The psychological changes resulting from drug use are those older folk frown upon and sometimes find repugnant and frightening, in contrast with such acceptable social tranquilizers as alcohol or barbiturates. There is also the possibility that those who use psychedelics might be injuring themselves or their offspring. The recent impassioned discussions of the possible effects of LSD on chromosomes is paralleled by similar discussions over masturbation. It was stated with the utmost confidence that not only would the secret vice result in the collapse and insanity of those who practiced it, but should they be unfortunate enough to survive to adulthood, their children would suffer for their sins. There was no evidence for this, but it did not prevent men of the highest integrity from stating that it was undoubtedly so.

There are real dangers associated with the psychedelic substances known today. These dangers are of many kinds and call for concern from medicine and its allied sciences. However, before discussing these dangers and how they might be alleviated, it may be well to remind those who urge medical men to make public pronouncements to frighten and dismay the young that, given the morality of medicine, its place in society, and the age of the experienced medical man, the doctor is rarely the best person for the task. He is liable to exaggerate such dangers as exist and is apt to aid and abet extreme measures, in keeping with the morality of the day, that may not alleviate the sufferings of the victims of the immoral condition and may even make it worse.

Psychedelics are liable to arouse moral indignation, because emotions are always likely to be deeply stimulated when someone else is indulging in new pleasures that may alter social values, especially when the users are young and rash and often brash as well. Medicine has a duty not to make this confusion and uncertainty any worse. Physicians are not police. Their duty is to inform the public as truthfully as they can, without excessive bias, resounding moral statements, or validation of punitive actions carried out as treatment. Medicine must avoid becoming a precipitate partisan in complex moral and social issues such as those posed by the modern advent of psychedelics.

After such perplexities, it is tempting to leave the solution to the reader's ingenuity. Yet authors customarily give their opinion and venture at least a few steps beyond the threshold of their ivory tower. The uses and dangers attending these substances must be discussed accurately and dispassionately. Men like Dr. Stanley Yolles, Director of the National Institute of Mental Health, do not seem convinced that "drug abuse," which includes the unauthorized use of a variety of psychedelics, will be eliminated in the foreseeable future. (1) If this is indeed so, strenuous efforts must be made to

reduce those dangers attendant on clandestine use. We require a variety of social strategies rather than freezing in a catatonic posture and boasting that this immobility is firm resolution. The very brief banning of LSD-25 research in 1966 was a classic example of precipitate, unintelligent action springing from high government levels. Since then, some research has been restored to a limited degree, but expansion has not been greatly encouraged, nor is an atmosphere of panic and politicking conducive to clear thinking, planning, and diligent, long-continued inquiry. Legitimate, rather than amateur and bootleg, research is necessary; yet one of the most gifted and distinguished researchers in the country was not able to obtain permission to do this sort of work. Others, too, have been discouraged by the sluggishness of the various bureaucracies that must be consulted.

The muddled and ambiguous situation regarding the effect of LSD-25 on chromosomes (2) might call for restriction of research with this particular drug to those people for whom such changes, if they do indeed occur, would be of comparatively little importance. Other psychedelics, which have never been implicated in this way, could be used more widely. Subjects for LSD might include some of the several million afflicted by severe and chronic alcoholism, patients suffering from intractable pain in fatal illnesses (Kast, 1964a), and older people still curious for new experience to enlarge their understanding of themselves, others, and existence. While not everyone might choose to die with his mind stimulated by LSD, as did Aldous Huxley (Huxley, L. A., 1968), rather than dulled by morphine, such matters call for careful consideration, for each of us owes God a death. It is folly to restrict and hamper research in all directions because it may be dangerous in some. If damage to chromosomes should be proved, and this has not yet been done, some substances may be less harmful than others, and it may be possible to discover protective measures. As a number of medicines in regular use are also suspect, and since some virus diseases and certain radiations produce similar changes, inquiries here would serve a wider purpose. Indeed, because of the possibility of chromosome-damaging substances in various medicines and foods, it would be prudent to inquire at once into such protective substances. For instance, it has been shown (in animals) that the teratogenic effect of thalidomide (Frank et al., 1963) can be prevented by greatly increasing the intake of niacin (vitamin B3). It is not known if this protective effect extends to humans, but if it does, the thalidomide tragedy, in which so many babies were deformed, might have been simply and cheaply avoided.

Many years ago, Carl Jung (3) told one of us that by the middle years of life, childhood experience had usually done its worst and became of lessened importance as a source of intrapsychic distress. Queen Elizabeth I put it to her godson, Sir John Harrington, who invented the water closet, "When thou dost feel creeping time at the gate, these fooleries will please thee less." She also reflected, "The days of man's life are plumed with the feathers of death." As the years pass by, many men and women become more concerned with the purpose and meaning of life, rather than with the drive to succeed in it. This is an important area of inquiry for psychedelic research.

Just as important, and at present receiving just as little attention, is our need to explore ways to help people prepare themselves for the rapid, all-pervasive, social and

technological changes characteristic of our times. In terms of science and technology, as compared with previous ages, many of us have lived through the equivalent of centuries of change. This torrent of change is itself anxiety provoking, for there are no structures to handle the kinds of change that change the structures themselves. Few moralists seem to have noticed yet that the progress of medicine has made it harder for us to reflect upon death and so savor life to the full. To come to terms with both life and death, each must be measured with the cold eye of the reflective mind; change must be faced.

Until about half a century ago, everyone everywhere was raised in the ever-present shadow of death. The autobiographies, biographies, and histories of forty years ago show that those plumed feathers were never far away. Life and death were inseparables, the subject of gossip and conversation. Many people were preparing themselves for their own deaths all their lives, for, unhampered by insurance statistics, they saw death as ever present. Death seems to have become taboo today and has taken that place of secrecy from which sex has just been freed. This exchange of prisoners seems hardly worth while. It is usually possible to abstain from sex, should one want to; death allows no abstentions. As a Ghanaian truck driver put it, "Death takes no bribes."

A generation has grown up in whose life death is an unfamiliar and unnatural event, almost an affront. Their experience does not countenance illness for which nothing can be done. But death has only been postponed, not defeated, and has dominion over people who have scarcely dared speak his name in polite company. Our forebears linked holy living and holy dying, and considered the two an art. In a society such as ours, which has become almost idolatrous about living indefinitely, it is becoming bad taste to discuss death. Our position is not unlike that in Victorian love stories, in which the authors managed to write about love and passion with few open references to sex7 although its absence made its presence all the clearer.

Those concerned with the religious aspects of psychedelics should make special efforts in this direction. Many members of the Establishment are in their middle and later years, and there is little doubt that they recognize that they "owe God a death," in spite of the efforts of their physicians and surgeons. Research into these matters should be pursued with ardor, for while the risks are small, the rewards are likely to be great. This still leaves the question of whether these substances have ill effects on the young and whether such ill effects can be much reduced, easily corrected, or completely avoided. Since controlling the manufacture, distribution, and use of psychedelics is still uncertain, although their containment seems to be possible, at least for the moment, even this might break down during the next few years, as we noted earlier.

If Victor Gioscia (1969) is correct, and there is an LSD subculture, the dangers, particularly to those under thirty, require very careful consideration. Leaving out chromosome damage, perhaps the most dramatic misfortune is the development of a schizophreniform illness. There is no doubt that this can happen, though it is not clear

how often it does. Certain myths current among some young drug takers increase the danger. One of the most unfortunate is that the appropriate remedy for a bad trip is another one, frequently with a larger dose than that which produced the first one. This notion is on a par with the alcoholic slogan of having a hair, or even the tail, of "the dog that bit you." The sensible response to a bad trip is not to have another, but to seek competent advice and guidance without delay. Some people, who are clearly developing schizophrenia and have disturbances of perception (Hoffer and Osmond, 1966a) combined with usually depressed mood changes, with anxiety and sometimes thinking difficulties, take psychedelics because they have heard, or hope, that they will help. The most probable outcome is a severe and prolonged bad trip, or sometimes the precipitation of a more-severe and acute illness. If these dangers were more widely known and understood, many young people would avoid trying to treat themselves by these desperate means and avoid much unhappiness and distress.

A number of simple and effective ways of exploring and measuring perceptual anomalies, including the HOD (Hoffer and Osmond, 1961; Kelm, Hoffer, and Osmond, 1967) and EWI (El-Meligi, l968a, 1968b; El-Meligi and Osmond, in press) tests already exist. By means of these and similar instruments, and by improving public knowledge about schizophrenia, it should be possible to diagnose and treat it far earlier and more successfully than usually happens today. Delaying treatment or aggravating the condition with mixtures of impure and often unknown chemicals in inept attempts at self-treatment only makes things worse. However, by no means all, or even most, who sample the bewildering array of often dubious substances said to be psychedelic become gravely ill or likely to be so. Official propaganda paints a uniformly gloomy picture, which paradoxically increases rashness by its exaggeration. This same kind of overstatement was used to discourage masturbation, sex, drinking, dancing, smoking, using make-up, primping, and other disapproved activities. The results have been unimpressive. However, even if it were shown that there were few physiological objections to young people taking pure and reliable psychedelics except for those with a tendency to schizophrenia, it does not follow that all controls should be removed.

Each one of us must learn his own culture before he can either align himself with its values or object to them in a manner likely to produce constructive change. In most cultures, the attainment of this is symbolized by the accordance of certain rights, such as the right to marry, hold property, vote, go to war, receive the death penalty, and other positive and negative awards withheld from children and those not sufficiently acculturated. In some cultures, ceremonies take place to mark entry into adult status, and ritual markings may also be applied in order to indicate the status of the new adult. Psychedelics taken before the stabilization of knowledge about cultural norms, because of their capacity to alter perceptual constancy, might result in a reduced capacity or wish to internalize the already fluctuating and fragmenting values of our industrial society. The Establishment, by its hasty and apparently not fully enforceable ban on these substances, seems to have worsened matters by making them symbolic of intergenerational differences.

Since the mistake has already been made, what can be done? Societies that have

sought and used psychedelic experience, however achieved, have nearly always had some kind of initiation ceremony, often of a religious kind, aimed at focusing expanded experience in a way that will enhance the participant's identification with and appreciation of his own society. In the United States at present, only indigenous Indians are permitted a religion employing psychedelics, and they have achieved this only by much stubborn courage. Surely bona fide religious groups interested in these matters who are prepared to conduct themselves in a manner in keeping with safety and public decency, should be encouraged and supported. They are likely to serve a valuable social function in the future. Even the cynical who are not wholly myopic can understand that banned and persecuted religions frequently spread more quickly and become more attractive in times of change. Persecution, even with the good intention of preserving health, is liable to have unintended consequences. In his morality *Island*, Aldous Huxley (1962) discussed these matters and illustrated them with the learning, perceptiveness, wit, and delicacy in which he had few rivals.

Mankind's interest in the psychedelic experience is unlikely to lessen with increase in leisure. This gives us a greater opportunity to be concerned not only with survival, but with the quality of those human relationships that are the stuff of life. Wasson (1969) shows in his great book that this is one of mankind's oldest interests. In the years that lie ahead, new drugs, although there will probably be many more of them, will not, we think, be the focus of greatest interest. Already various forms of hypnosis, learning-theory applications, and electronics that evoke and reproduce these experiences are being explored. Those young people who are alert to them and interested will learn how to use them, and some may be doing so even now. If this happens, the Establishment will have to decide whether it disapproves of the chemicals producing the experience or the experience itself. Very few of those dealing with these matters legally, scientifically, or politically seem to have concerned themselves with this critical issue. Medically, the non-drug methods eliminate many of the current objections to the psychedelic experience as a hazard to health. The social problems, however, especially those of acculturation, would not necessarily be greatly changed .

If such capacities, however induced, become widespread, their impact is likely to resemble some massive mutation. Perhaps this is necessary if we are to adapt to that new world that we are building with such a strange mishmash of cunning, inspiration, apprehension, and folly. The sociological, psychological, political, and other consequences of psychedelic experience, however induced, occurring in the majority or even a substantial minority of a postindustrial population, is likely to affect most of us far more than a few space jaunts for carefully selected heroes and heroines. The record is merciless: practical men of sound sense are nearly always wrong about the future, though never lacking in certainty. While the winds of change strum to gale force around us, they perform their ostrich acts and proclaim that they have everything under control. But the gale does not blow itself out because of their rhetoric, and to survive, we need to set a course that carries us into the future. Some years ago one of us wrote (Osmond, 1957a):

. . . these agents have a part to play in our survival as a species, for that survival depends as much On our opinion of our fellows and ourselves as on any other single thing. The psychedelics help us to explore and fathom our own nature.

We can perceive ourselves as the stampings of an automatic socioeconomic process, as highly plastic and conditionable animals, as congeries of instinctive strivings ending in loss of sexual drive and death, as cybernetic gadgets, or even as semantic conundrums. All of these concepts have their supporters and they all have some degree of truth m them. We may also be something more, "a part of the main," a striving sliver of a creative process, a manifestation of Brahma in Atman, an aspect of an infinite God immanent and transcendent within and without us. These very different valuings of the self and of other people's selves have all been held sincerely by men and women. I expect that even what seem the most extreme notions are held by some contributors to these pages. Can one doubt that the views of the world derived from such differing concepts are likely to differ greatly, and that the courses of action determined by those views will differ . . . ?

. . . I believe that the psychedelics provide a chance, perhaps only a slender one, for homo faber, the cunning, ruthless, foolhardy, pleasure-greedy toolmaker, to merge into that other creature whose presence we have so rashly presumed, homo sapiens, the wise, the understanding, the compassionate, in whose fourfold vision art, politics, science, and religion are one. Surely we must seize that chance....

And so it stands today. [1970]. We predict, to use the Iron Duke's phrase to Creevey, that it will be "a nice-run thing: the nicest-run thing you ever saw...."

(1) Yolles, Stanley F. Speech quoted in Hospital Tribune, Monday, June 16, 1969.

(2) Today (July 1969) reports of chromosome changes are bewildering to those not experts in this field. The various conflicting statements suggest that the science of studying chromosomes requires an art as great as that needed to interpret Rorschach inkblots. In that famous and often valuable test, the non-expert must rely on his own estimate of the reliability of the particular person who administered and reported on the test. Great difficulties arise when men of good repute publish findings that seem, at least to the naive, to be diametrically opposed and irreconcilable. There is a danger that, because of reports in the press based on earlier studies that suggested unequivocal damage to chromosomes, some people who were frightened away by this information will now decide that there is no danger whatever. It may even be thought that this was another trick like that deplorable episode in Pennsylvania, where it was reported with considerable circumstantial detail that a number of young men had gazed at the sun under the influence of LSD-25 and were permanently blinded, suffering grave retinal damage. This proved to be false. Thus are credibility crevasses created.

(3) Jung, C. Personal communication to H. Osmond. November 1955.