



psychedelics

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*The Uses and Implications
of Hallucinogenic Drugs*

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fer and that the therapist should aim at giving both kinds of experience to each patient. As there has been much discussion but no research on the order in which these should be undergone, this still remains a matter of clinical judgment.

TREATMENT OF ALCOHOLISM WITH PSYCHEDELIC THERAPY

ABRAM HOFFER

Introduction

Alcoholics Anonymous, the great self-help group-therapy movement, is the only established treatment for alcoholics. Until much more is known about the personal (biochemical and psychological), familial, and social factors that contribute to alcoholism, so it will remain. Most new therapies are merely adjunctive to AA and will continue to be so until it is shown that they have therapeutic value when used alone. In my view, psychedelic therapy is best used as a preparation for AA.

When Bill W. and Dr. Bob founded AA, alcoholism had not been accepted as a disease, either by society at large or by the medical profession. Society considered it a moral problem, but found itself confronted with an interesting dilemma, for only a small proportion of the total drinking society drank excessively. No moral sanctions were required for the majority, who eventually made social drinking an integral part of the culture.

The majority who remained moral drinkers could not understand why a minority became intemperate or alcoholic. Moral sanctions were applied on the premise that excessive drinking arose from defects of character, defects of will, and defects in society. These sanctions included education, persuasion, incarceration, and banishment. Unfortunately, the most stringent measures had little permanent effect, and the proportion of *the drinking society* (a concept developed by

Dr. H. Osmond) remained the same or increased. Medicine also considered alcoholism a non-disease.

The founders of AA introduced the medical model first to alcoholics, later to society, and finally to the medical profession. This concept was very appealing to alcoholics because it gave them a satisfactory explanation for their misfortunes. If they were sick and not evil, then they might expect the same sort of treatment they would receive if they developed pneumonia or diabetes. Bill W. and Dr. Bob also introduced the concept of allergy, which thirty-five years ago was incorporated into medicine as a new group of diseases.¹

But AA insisted that alcoholism was more than a physical illness. It also carried strong personal responsibility. An alcoholic could not be censured for being an alcoholic, but he could be for doing nothing about it.

Society resisted the idea that alcoholics are sick, since it got no guidance from a reluctant medical profession. Doctors expect diseases to be more or less definable, to have treatment that may be ineffective but must be in common use, and to have a predictable prognosis. When they became convinced that AA did help large numbers of alcoholics remain sober, they gradually accepted alcoholics as patients. Even now, the majority of hospitals are extremely reluctant to admit alcoholics who are drunk, and many doctors dread seeing them in their offices. Eventually AA forced the profession to accept the fact that alcoholism, which has been estimated to afflict 5 per cent of the population, is a disease. This marked the beginning of the final solution to the problem. For, having accepted the disease concept, doctors were challenged by the enormous problems, and, in a matter of a few years, several major therapeutic discoveries were made.

The newer adjunctive therapies developed for alcoholism may be divided into the psychological and the biochemical.

¹Dr. Walter Alvarez recently told me that when he wrote a paper on food allergies at the Mayo Clinic about fifty years ago, he was severely criticized by his colleagues. Only strong support from one of the Mayos, who discovered that he himself had a food allergy, protected Alvarez from even-more-powerful assault. Medicine seems very reluctant to take unto itself new diseases.

Psychotherapy, deconditioning therapy, and psychedelic therapy are examples of purely psychological therapy, while sugar-free diets for relative hypoglycemia, mega vitamin B₃, megascorbic acid, and adrenocortical extracts (or extracts of licorice) are examples of pure chemotherapies.

Psychedelic therapy is the only therapy that has prepared alcoholics to become responsible members of AA, when previously they had been unable to do so.

Psychedelic Therapy

We must distinguish sharply between psychedelic reactions and the means for inducing them. Failure to understand this distinction has led to several futile researches, best exemplified by the study of Smart and Storm (1964), which was widely circulated in an extreme form before publication of the watered-down version.

Psychedelic therapy refers to a form of psychotherapy in which hallucinogenic drugs are used in a particular way to facilitate the final goal, which for alcoholics is sobriety. The drugs may be mescaline, LSD, psilocybin, and many others, as well as combinations. It is therefore trivial to test the effect of LSD or other hallucinogens on alcoholics in such a way that there is no psychedelic reaction. In fact, these trivial experiences have led to trivial data, as reported by Smart et al. (1966), who claimed that a group of ten alcoholics given LSD did not differ in outcome from a group of ten given another psychoactive drug. Close examination of their report shows that no therapy was given, nor was there any encouragement of discussion of problems. The experience was not psychedelic, but was more in the nature of an inquisition, with the subject strapped to the bed, pretreated with dilantin, and ill from 800 μg of LSD. Since no investigator has ever claimed that LSD used in this way does have any therapeutic effect, this experiment suggests that LSD used with no therapeutic intent or skill is not apt to help. One of the subjects given LSD by Smart et al. described his experience in comparison with a psychedelic reaction he received from smaller quantities of LSD in Saskatchewan. The experiences and the outcome were quite different.

Psychedelic therapy aims to create a set and a setting that will allow proper psychotherapy. The psychedelic therapist works with material that the patient experiences and discusses, and helps him resynthesize a new model of life or a new personal philosophy. During the experience, the patient draws upon information flooding in from the altered environment and from his own past, and uses it to eliminate false ideas and false memories. With the aid of the therapist, he evaluates himself more objectively and becomes more acutely aware of his own responsibility for his situation and, even more important, for doing something about it. He also becomes aware of inner strengths or qualities that help him in his long and difficult struggle toward sobriety.

The book *The Use of LSD in Psychotherapy and Alcoholism*, edited by H. A. Abramson (1967), contains the best collection of scientific papers on psychedelic therapy.

Around 1952, Osmond and I had become familiar with psychotomimetic reactions induced by LSD. There was a marked similarity between these reactions and schizophrenia and the toxic psychoses. Delirium tremens is one of the common toxic states. It occurred to us that LSD might be used to produce models of dt's. Many alcoholics ascribed the beginning of their recovery to "hitting bottom," and often "hitting bottom" meant having had a particularly memorable attack of dt's. We thought that LSD could be used this way with no risk to the patient. We treated our first two alcoholics at the Saskatchewan Hospital, Weyburn, Saskatchewan, and one recovered.

Other early pilot studies were encouraging, and we increased the tempo of our research until at one time six of our major psychiatric centers in Saskatchewan were using it. As of now, we must have treated close to one thousand alcoholics.

Within a few years after our first patients were treated, we became aware that a large proportion of our alcoholics did not have psychotomimetic reactions. Their experiences were exciting and pleasant, and yielded insight into their drinking problems. It became evident that a new phenomenon had been recognized in psychiatry. Osmond created the word *psychedelic* to define these experiences, and announced

this at a meeting of the New York Academy of Sciences in 1957.

Following this, our researches were aimed at improving the quality and quantity of psychedelic reactions. Within the past ten years, major studies, under the direction of Dr. Ross MacLean, Hollywood Hospital, New Westminster, British Columbia, and under the direction of Dr. S. Unger at Spring Grove State Hospital, Baltimore, Maryland, have added materially to our knowledge of the effect of psychedelic therapy on alcoholism.

I will not review the results of psychedelic therapy in detail. This has been done in the books edited by H. A. Abramson and in *The Hallucinogens* by A. Hoffer and H. Osmond (1967). The one striking conclusion is that every scientist using psychedelic therapy with alcoholics found the same proportion of recoveries. Whether the experiments were considered controlled or not, about 50 per cent were able to remain sober or to drink much less. This seems to be a universal statistic for LSD therapy.

Contraindications

Diseases such as schizophrenia and/or malvaria (Hoffer and Osmond, 1962), are contraindications for the use of psychedelics, because subjects who have them are unlikely to have psychedelic reactions and are much more likely to have prolonged depressions and other psychotic reactions. These can lead to severe anxiety or panic, to suicide, and, very rarely, to other violent acts. Recurrences may occur several months later, but it is difficult to decide whether this is a recurrence of the LSD reaction or a resurgence of schizophrenia.

But even schizophrenics and malvarians will not be harmed by LSD therapy if the treatment is conducted in a hospital and if any resurgence of schizophrenia is treated promptly and vigorously with mega vitamin B₃ (nicotinic acid or nicotinamide) and other chemotherapy. LSD therapy is unlikely to help them, however, and I have not given them LSD unless they have been normal for two years on vitamin B₃ medication. The two main uses for schizophrenics would be in demonstrating to them that the perceptual and

other changes they had judged real can be induced by drugs and in helping them remove certain isolated delusions.

How to Select Subjects for Psychedelic Therapy

When the indications for psychedelic therapy are clear, it is important to measure the likelihood of a bad reaction. When this is done, unexpected reactions will be less surprising and more easily controlled. There are two objective tests I have found very helpful. These are the HOD (Hoffer-Osmond Diagnostic) test and the mauve factor test.

a. *The HOD test.* This test consists of 145 cards. Each card, as in the individual form of the Minnesota Multiphasic Personality Inventory, contains a question or a statement on one side. The cards are numbered from 1 to 145 on the other side. The subject is told that this is a symptom check list. He is asked to read each card and then to place it in a box marked TRUE or FALSE, according to how he sees his own situation. After he has sorted the shuffled cards, the TRUE cards are recorded by number.

The questions were designed by Hoffer and Osmond (1961). A thorough study was made of hundreds of schizophrenic patients, of dozens of autobiographies of schizophrenics, and of many psychotomimetic and psychedelic experiences. From this information, questions were created that would test the experiential world, thought, and mood of subjects. Normal subjects would place most cards in the FALSE box, while schizophrenics would tend to place them in the TRUE box. High scores, therefore, indicate psychopathology.²

Every subject is given the HOD test, and if his scores are high, he must be re-examined clinically very carefully to rule out early or pseudoneurotic schizophrenic reactions.

The following example illustrates one case in which this precaution was not followed. The subject was helped by his reaction, but had his therapist taken seriously the results of his HOD test, he would have spared a recurrence of mild schizophrenic reactions.

Mr. A. B. (age thirty-five) was admitted to the psychiatric

² An HOD manual is available from Modern Press, Saskatoon, Saskatchewan, Canada (1967).

ward for two months in 1963 complaining of bouts of depression, anxiety, stammering, and homosexuality. He had been treated five years before with improvement that had lasted until a few months before this admission. During the interval, he had become a successful educator.

He scored very high on the HOD test, with several scores being in the schizophrenic range. (Depression score was 8, perception score 9, paranoid score 9, and total score 71.) He was given 300 μg of LSD and had a moderate reaction. One week later, he received 500 μg . This time he abreacted a good deal of psychological material. This experience was more bizarre than the first one. He also heard voices speaking to him in a foreign tongue. This is very rare in psychedelic reactions. He was much improved after this for four years. Then (June 1967) he suffered re-experience of certain portions of his LSD reactions. During his 500- μg reaction, a large portion of the experience was not perceptual, but consisted entirely of changes in thought. These now came back to him. He began to block frequently, and for two days became very delusional and paranoid about his family doctor. He was a very intelligent man, so, with great determination, he discussed his paranoid ideas with his doctor. His doctor was very helpful, and in two days the paranoia was gone. He was referred to me. It was fairly certain that he had suffered a transient schizophrenic reaction that could certainly not be ascribed to LSD taken many years before. With reassurance and vitamin B₃, he quickly began to improve, and his HOD scores became normal.

b. *The malvaria test.* Irvine (1961) and Hoffer and Mahon (1961) reported that the majority of schizophrenic patients excreted a substance in their urine that stained a mauve color on a paper chromatogram when sprayed with Ehrlich's reagent. Since then, repeat studies on thousands of cases in our laboratories and fewer cases in other independent laboratories have corroborated these findings. Because the chemical was not identified, we called it the mauve factor. The mauve factor also was found in a minority of non-schizophrenic patients. The frequency with which the mauve factor appeared in various diagnostic categories is shown in Table 1.

TABLE 1
 DISTRIBUTION OF MAUVE FACTOR
 AMONG SEVERAL DIAGNOSTIC GROUPS

<i>Group</i>	<i>Number</i>	<i>Per cent who have factor</i>
Schizophrenia		
acute—first admission	30	90
acute—first and readmissions	300	75
treated, still ill	500	50
treated, well	100	0
All neurotics	300	27
All alcoholics	100	33
All physically ill	400	10
All normals	100	5
All first-order relatives of a schizophrenic or malvarian	200	33

This distribution was obtained from patients tested at the University Hospital, Department of Psychiatry, from 1960 to 1966 by Hoffer and Mahon, from patients tested at Saskatchewan Hospital, Weyburn, under the direction of H. Osmond from 1960 to 1962, and from patients tested at Moose Jaw Union Hospital, Department of Psychiatry, under the direction of Dr. P. O. O'Reilly from 1963 to 1966. The three laboratories used the Hoffer and Mahon (1961) method. Because the mauve factor was present in all groups, Hoffer and Osmond (1962) proposed the diagnostic term malvaria. A malvarian is any human who excretes the mauve factor. Malvarians are all homogeneous with respect to a particular biochemical abnormality. No similar claim can be made for any other psychiatric group, except syphilis, where the criterion is a serological test, or perhaps pellagra psychosis, where the criterion is a chemical test.

Malvarian alcoholics differ from other alcoholics in several other characteristics. (1) Malvarian alcoholics scored much higher on the HOD test (Hoffer and Osmond, 1961). (2) They infrequently responded to LSD with a psychedelic reaction, while non-malvarian alcoholics responded like normal subjects. (3) They had prolonged reactions to LSD more

frequently. (4) So far, not one of the sixty malvarian alcoholics treated has achieved sobriety because of treatment with LSD. It seems, therefore, pointless to give malvarian alcoholics LSD therapy. Since one third of our alcoholics were malvarian, one can assume a similar proportion will be found at other places. I suggest that psychedelic therapy can be made more specific, and the percentage of recoveries will rise, if the malvarian alcoholics are detected and placed in another treatment category. If there are good reasons for giving malvarians LSD, special precautions must be observed. These are: (1) to treat them with mega vitamin B₃ therapy until they are normal and non-malvarian, (2) to start medication once more the day following the session and to continue for several months. I do not give LSD to any malvarian without following these precautions.

Malvarian alcoholics need not be ignored. The majority will respond very well to mega vitamin B₃ therapy. This is described in a book by Hoffer and Osmond, *New Hope for Alcoholics* (1968).

A recent report by R. Smith (1968) suggests that most alcoholics respond to mega vitamin B₃ therapy. Smith treated over five hundred very ill chronic alcoholics with 4 gm or more per day of nicotinic acid and followed them for six to eighteen months. Smith described this group as the most recalcitrant, or sickest, group in his experience. Most of them had repeatedly failed AA and other alcoholism programs. From this series, about 15 per cent showed no response. About 20 per cent showed an excellent response, meaning that they had achieved a state of normal sobriety and required no medication other than the nicotinic acid. About 40 per cent were classed as good, i.e., they were working, feeling better, but required other medication and slipped now and then. The remaining 25 per cent felt better but did not behave better.

When alcoholic slips did occur, they were of much shorter duration. One alcoholic who invariably had had four-to-six-week bouts for many years drank for only one day when taking nicotinic acid. He reported that contrary to his usual experience, he felt no elation from eight or nine drinks.

Smith's data suggest that one need not wait for the diagnosis of malvaria before using mega vitamin B₃. They also

suggest that in Smith's series the malvarian alcoholics are more apt to be found in the group who showed an excellent response, that is in about 20 per cent of the population.

Summary

I have described briefly the Saskatchewan origin of psychedelic therapy. This is a form of psychotherapy wherein particular changes in thought are facilitated by hallucinogenic drugs. Both are essential components. In general, hallucinogenic drugs alone or psychotherapy alone have been ineffectual in helping alcoholics. Many workers have condemned psychedelic therapy when in fact they have merely used drugs and none of the other components of the program.

Every therapy has contraindications. Psychedelic therapy is no exception. They are schizophrenia and malvaria, and high HOD scores. They are contraindications because individuals with these characteristics are unlikely to be helped and because they are more likely to have prolonged undesirable reactions.

When alcoholics have schizophrenia, malvaria, or high HOD scores (uncomplicated by acute intoxication), they will respond well to mega vitamin B₃ therapy.

A CONCEPT OF DEATH

ERIC C. KAST

Any meaningful concept of death can only originate in an intact, living, and functioning central nervous system. This system cannot transgress the limits of its power of conceptualization, and one of these is that it cannot imagine its own termination. Therefore, ideas about death must by necessity be developed in the living state by extrapolation and anticipation of an unknown, frightening, helpless, and ominous state: a state that we all dread and that fills us with terror. Such extrapolations, when they occur in certain contexts, are usually considered mental aberrations, or even mental disease.