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PSYCHEDELIC DRUGS: A STUDY OF DRUG-INDUCED EXPERIENCES OBTAINED BY ILLEGAL DRUG USERS IN RELATION TO STANISLAV GROF'S MODEL OF ALTERED STATES OF CONSCIOUSNESS*

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ABSTRACT

The purpose of this study was to provide information about experiences obtained by illegal drug users and evaluate if these are consistent with Stanislav Grof's expanded model of the human unconscious. Sixteen anonymous former drug users answered a questionnaire about use, experiences, circumstances, and influences of their life. All of them have had some experiences similar to Grof's descriptions. Transpersonal experiences were more reported by those who used to be "heavy" users. Such experiences were also more likely to be reported by those who described themselves as spiritual seekers and by those who made some form of ritual or mental preparation part of their experience. This study also provides general information about Grof's model and some about psychedelic research worldwide.

INTRODUCTION

The psychoactive properties of lysergic acid diethylamide, or LSD, were accidentally discovered by Swiss chemist Albert Hoffman more than 50 years ago. Natural substances (from seeds, plants, and mushrooms) with similar action are

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known to mankind for thousands of years, in connection with religious ceremonies and rituals for healing. In the 50s projects with LSD were started in psychiatric research, in the 60s it also became popular as a "street-drug." In most countries it was later declared illegal and all legitimate research was banned.

STANISLAV GROF'S MODEL

Stanislav Grof has dedicated three decades to researching psychedelic substances and to clinical observation of their effects on psychiatric patients [1-3]. Based on that experience, Grof proposed a new, expanded model of the human unconsciousness. That expanded model encompasses the entire established model, where Freud's point of departure, among others, is useful, but adds additional levels, the perinatal level and transpersonal level where we do not yet have any tangible explanatory models. The perinatal level has certain similarities [4] with models presented by Rank and the transpersonal level has similarities to thoughts presented by Jung.

The levels in Grof's model are: 1) sensory barrier, 2) the individual's unconscious, 3) the level of birth and death (perinatal level), and 4) the transpersonal level [1-3]. These levels can be experienced, according to Grof, by nearly all people, not only in connection with psychedelic drugs, but also with experimental psychotherapy which uses breathing techniques, music, dance, and body-work. Even many consciousness-change techniques studied in laboratories, such as biofeedback, sensory deprivation, and sensory overload, can also induce many of these experiences. They can, in rare cases, even arise spontaneously. A majority of ancient Eastern spiritual techniques are also specifically designed to give experiences of these levels. This entire spectrum of experiences has also been described by historians and anthropologists in connection with various shamanic rituals.

1) *Sensory barrier.* This first level, which is usually reached in the initial phases of LSD sessions, tends to activate the sense organs (primarily the faculty of vision), and gives abstract and often esthetically appealing images. These abstract phenomena can be experienced both with open and closed eyes. Changes on the acoustic plane can be the impression of ringing or whining in the ears. Common is that many experience new dimensions of music and many say that they, for the first time in their lives, truly experienced music. Even changes in smell and taste sensations can occur, but are not so common. Also characteristic is synesthesia (transfer among sense organs) where e.g., colors can be heard or sounds can be seen [5]. All experiences on this first level lack, according to Grof, deeper meaning, they seem to be merely a barrier which must be passed before continued investigation of the subconscious can take place. Other researchers, including Pahnke and Richards, assert that that type of experience in certain cases can certainly have psychoanalytical significance [6].

2) *The individual's unconscious.* The next level is the individual's own unconscious. This level is the one to which most of traditional psychotherapy has devoted itself. These experiences have their origin in important memories, events, and circumstances in the individual's own life from birth to date. Most of that which emerges here can be explained and interpreted with prevalent psychodynamic models and theories. Any unsolved conflict or repressed memory can emerge in an experience of this sort. The prerequisite for its emergence is that it has a sufficiently great emotional charge for the person. Grof has noticed that relevant memories do not appear singularly, but instead appear in distinct dynamic constellations. He has coined a term for the phenomena, COEX System ("systems of COndensed EXperience"). A COEX System is a collection of memories ("thematic clusters") from various periods in an individual's life with the common designation "strong emotional charge of the same type." The experienced similarity is more important than the fact that it may have been several years or decades between events. A COEX System is a general principle for all levels and is not limited to any particular level/domain.

3) *The perinatal level (level of birth and death).* Grof attempts to link many LSD-induced experiences to the child's experience during the different stages of delivery. Today's neurophysiologists deny the possibility of memories before and immediately after delivery since the nerve net at that stage is not yet completely myelinized and developed. On the basis of the experiences he had, he asserts that they ought to be a good starting point for revising or re-investigating those standpoints. Grof presents many, and speculative, ideas on how different psychopathological aberrations (e.g., pedophilism, psychoses, sado-masochism, and other types of perversions) can have their origins in experiences of delivery. He cautions against seeing this as the only conceivable explanatory model, but means that it can lay ground for deeper understanding.

4) *The transpersonal level.* The common designation for these phenomena is the individual's feeling that his or her consciousness has expanded beyond the usual boundaries of the ego and even overstepped the limits of time and space. In our ordinary state of consciousness we experience ourselves as existing within the body's physical boundaries and our perception of the surroundings is limited to what we experience with the sense organs. We experience only our immediate situation and we can remember the past and fantasize about the future. In a transpersonal experience one or more of these limits is abolished. Many experiences in this category have to do with regression. It is fairly common to have "experiences" from foster and embryo life. Many report even lively sequences from the cell level which reflect their existence as egg or sperm at the moment of conception. Occasionally that regression can go even further back and several individuals have expressed "memories" from earlier ancestors. Other transpersonal phenomena include transcendence of space barriers instead of time barriers. Included here are experiences of, in total unanimity, being melted together with or united with another person or group of people or to expand one's consciousness to

encompass the whole of humanity. Another important category which involves transcendence of the time/space barrier is other ESP-phenomena.

RESEARCH ON PSYCHEDELIC DRUG USE

The discovery of the psychoactive effects of LSD in 1943 led to a wave of practical trails [1, 5] and nearly 700 publications are listed [7]. by today's measures and with today's demands for (the use of systematic) research methods, many of these early reports would be considered substandard [7]. That is partly due to the experimental character of psychotherapy at that time; also knowledge was not widespread about how these highly potent psychoactive drugs ought to be dealt with. Counting the number of patients treated, the total is ca. 10,000 people. During recent years, interest in again using psychedelic drugs in various forms of therapy has increased [8, 9] and current projects often fall within the problem area of the treatment and cure of various types of (drug) abusers/addicts. In the United States, limited trials with LSD have begun. One was recently (1997) initiated at the Orenda Institute in Baltimore, where Richard Yensen has started working with 60 long-time drug addicts; they will carry out up to five LSD sessions per person. The project is named "LSD-Assisted Psychotherapy in the Treatment of Substance Abusers" [9, 10]. In St. Petersburg, Russia, Evgeny Krupitsky has been working for 11 years with ketamine therapy for alcoholics. During 1997 he was to start a three-year ketamine project for heroin addicts, "Ketamine-Assisted Psychotherapy in the Treatment of Heroin Addicts" [11]. Two major investigations have been carried out (in the United States by Cohen, in England by Malleson) on the risks to and safety of the patients. These studies showed the degree of complications comparable to conventional psychotherapy [8].

Sometimes a psychedelic user can enter a state of anguish and then panic [9]. Therefore it is of greatest import, which Grof etc. point out, that an experienced therapist is by the patient's side the whole time. The negative effects of the drug are treated symptomatically, i.e., patients are greeted in a calm and friendly manner and in serious cases of anguish may be administered tranquilizers. The psychotic effects are generally transient, but occasionally are (especially with illegal use) more persistent and can transform into a psychosis. It is not known whether in predisposed individuals the drug triggers the psychosis or whether the drug itself can trigger a psychosis in an otherwise healthy person. Another side-effect which can arise is flashbacks, i.e., re-experiencing some of the feelings or experiences which accompanied the original drug-inebriation [12].

THE PRESENT STUDY

The aim of this study is to see if the people who have illegally used psychedelic drugs, without supervision of therapist, have had experiences which are similar to those that Grof describes. Also studied in this research is how drug experiences

have been influenced by different circumstances in connection to drug use as well as how the individuals themselves perceive how their own use of psychedelic drugs has influenced them.

METHOD

Participants

The sample contained 16 people: 12 men and 4 women with a range of distribution of ages from 22 to 44 years (M = 30.13, SD = 8.06). One of the participants was unemployed (6.2 percent), 11 participants were employed (68.8 percent), and 4 of the participants were students (25 percent). In regards to educational achievements, 1 of the participants (6.2 percent) had not studied beyond the lower secondary school level, 6 participants (37.5 percent) had graduated from high school, and 7 participants (43.8 percent) had graduated from college or university. Two participants (12.5 percent) responded "other" education.

Selection and Data Collection

The questionnaire the participants were to respond to was distributed to five contact individuals (known to the investigator) who then distributed them to people they knew had previously taken drugs. The five contact individuals did not know each other, nor did they have knowledge of who the other contact people were. The contact people were not similar with respect to age, educational background, employment, and interests; that reduced the risk of selecting a homogeneous group of participants. All participants were anonymous. The participants then anonymously returned the questionnaires to Karlstad University in an enclosed self-addressed stamped envelope. The questionnaires were returned quickly. The time between the questionnaires' distribution and the first responses received was about a week. The response frequency was high (94.1 percent): 17 questionnaires were distributed and 16 were returned.

Drug Use

The substances used were LSD, psilocybin, LSA, and ketamine. Some participants also claimed to have used MDMA (ecstasy), amphetamine, alcohol, or cannabis, sometimes also mixed together with the psychedelics. Since these substances are not truly "psychedelics," data about those used are not included. The distribution among substances used is shown in Table 1. Some participants have used more than one substance. The distribution is shown in Table 2.

Psilocybin (which is found in certain mushrooms and can also be synthetically produced) is a substance which produces nearly identical effects as LSD. A difference compared to LSD is the shorter duration of psilocybin's influence. LSA

Table 1. Distribution among Substances (N = 16)

Substance	Number of participants
LSD	12
Psilocybin	12
Ketamine	1
LSA	1

Table 2. Distribution of Substance Use (N = 16)

Used substances	Number of participants
Only LSD	4
Only psilocybin	4
LSD and psilocybin	7
LSD and psilocybin and LSA and ketamine	1

(lysergic acid) is found in nature in certain seeds. Its effect is distinguishable in certain respects from LSD. Ketamine is a synthetic narcotic substance (for both human and veterinarian use) which in this connection is taken in significantly lower doses than compared to those used clinically as an anesthetic. The effect of ketamine is described as "consciously dissociating from the body," sometimes known as "out-of-body" experiences. Ketamine is often injected, the others are usually taken orally.

The number of occasions upon which psychedelic drugs have been used varies between 1 to 66 occasions (M = 18, SD = 20.36). In certain statistical calculations the sample has been divided into two parts according to the number of occasions. In these cases, the highest eight users (10 times or more) have been labeled the High Group and those eight users with less than 10 experiences the Low Group. An overview is presented in Table 3.

Distribution of coinciding drug use together with the psychedelic drugs is shown in Table 4.

Questionnaire

The questionnaire had questions within a variety of areas, namely: 1) substance used and frequency, 2) circumstances surrounding the drug use, 3) type of

Table 3. Number of Participants in Relation to Number of Occasions when Substances were Used ($N = 16$)

Number of occasions	Number of participants
1	1
2	3
3	1
4	1
6	1
8	1
10	1
12	1
20	2
41	2
50	1
66	1

Table 4. Distribution of Coinciding Drug Use Together with the Psychedelic Drug (Never, Sometimes, Nearly Always/Always, No Answers)

	Never	Sometimes	Nearly always/ always	No answers
Alcohol	10	3	2	1
Cannabis	5	6	2	3
Other drug	7	5	2	2

(As other drug, ecstasy (4 persons) and amphetamine (2 persons), were reported).

experiences with or without drugs, 4) the psychedelic drug use and its influence on the participant's life, and 5) demographic questions.

RESULTS

Circumstances of Drug Use

No participant used drugs alone. Eleven participants (68.7 percent) used drugs together with one to two other people and five participants (31.2 percent) used drugs together with three or more others. In response to the question if they

prepared ritually or in some other psychic way before drug use, half of the participants (eight individuals) answered Yes and the other half (eight individuals) answered No. Mentioned as examples of such preparations were: sleep well, eat well, see that one feels well psychically, mental "pepping," clean up, aroma pots or lamps, wind down, see that you have calm surroundings, and meditate. As cause for drug use, the most common answer is "curiosity" (13 participants) and "want to have fun" (13 participants). Then follow to "flee from reality" (six participants) and "spiritually seeking" (five participants). No participant reported to have used drugs in order to "gain attention" or to "do the same as friends" (Table 5).

Nine people commented on why they use psychedelic drugs. These comments are recounted here:

To learn more about myself and my relationship to the world. Want to understand spiritual phenomena. Sometimes just pure recreation, to experience colors and forms.
Seek the excitement of unusual experiences.
More fun than drinking alcohol.
Want to experience new things—like traveling.
To solve problems (theoretical/practical) both private and professional.
Fun and exciting with unusual experiences.
Drugs are pure enjoyment.
Wish to develop mentally; go beyond a humdrum existence; dive into myself; enjoy all that is beautifully, incredibly, fantastic; dance and trance.
To feel, see, and hear things that are normally not perceptible, to expand ones senses.

Table 5. "Why do you use psychedelic drugs?"
Number of persons. $N = 16$

	Yes	No	No answers
Want to have fun	13	0	3
Gain attention	0	11	5
Do same as the friends	0	11	5
Curiosity	13	2	1
Spiritually seeking	5	7	4
Flee from reality	6	7	3

No uniform behavior can be distinguished for what people in the main do during drug use. It is approximately as common to move about as to keep still. It is as common to talk with others as to keep quiet.

Experiences

Participants had to decide whether or not they have had certain experiences. Those were: out-of-body experience, cease to exist as an individual, religious experience, contact with alien beings, transformation to an animal, visions of mythological beings, ability to travel in time, new knowledge about oneself, experiencing oneself in another time than the current, telepathy, have seen unfamiliar places, landscapes or buildings, and great horror and fear. Participants had the alternatives: never, one to two times, three or more times (Table 6). The paranormal experiences were later summate "paranormal index" (Table 7).

Table 6. Frequency of Different Paranormal Experiences. Values are Given in Percent of Those Participants Stating that They Had Sch Experiences

Experience	Never	1-2 times	3 or more times
Out-of-body-experience	46.7	26.7	26.7
Ceased to exist as an individual	53.3	40.0	6.7
Religious experience	53.3	20.0	26.7
Contact with alien beings	80.0	13.3	6.7
Transformed to an animal	46.7	46.7	6.7
Visions of mythological beings	66.7	20.0	13.3
Ability to travel in time	60.0	13.3	26.7
Got knowledge about oneself	46.7	26.7	26.7
Experiencing oneself in another time than the current	80.0	20.0	0
Telepathy	40.0	33.3	26.7
Have seen unfamiliar places, landscapes, or buildings	37.5	37.5	25.0
Great horror or fear	37.5	50.0	12.5

Table 7. Comparisons between Low and High Groups in Regard to Question 6. Mann-Whitney U Test

Experience	Group	Mean rank	U	*p* (2-tailed)
Out-of-body	Low	6.93	20.5	0.351
	High	8.94		
Ceased to exist as an individual	Low	7.00	21.0	0.361
	High	8.88		
Religious experience	Low	6.07	14.5	0.085
	High	9.69		
Contact with alien beings	Low	7.50	24.5	0.562
	High	8.44		
Transformed to an animal	Low	7.00	21.0	0.365
	High	8.71		
Visions of mythologic beings	Low	7.36	23.5	0.533
	High		8.56	
Ability to travel in time	Low	6.57	18.0	0.186
	High	9.25		
Got knowledge about oneself	Low	5.57	11.0	0.034
	High	10.13		
Experiencing oneself in another time than the current	Low	7.57	25.0	0.617
	High	8.38		
Telepathy	Low	5.71	12.0	0.049
	High	10.00		
Have seen unfamiliar places, landscapes, or buildings	Low	6.50	16.0	0.074
	High	10.50		
Great horror or fear	Low	7.88	27.0	0.563
	High	9.13		
Paranormal-index	Low	5.00	7.0	0.015
	High	10.63		

Comparing the High and Low groups, the former has a higher frequency of all types of experiences, but there are significant differences only regarding two kinds of experiences: "got knowledge about oneself" (Mann Whitney, $p = 0.034$) and "telepathy" (Mann Whitney, $p = 0.049$). There is a significant difference (Table 7) between High and Low groups (Mann Whitney, $p = 0.015$) in respect to the paranormal index (i.e., the summation of the frequency of all "paranormal" experiences).

Nine participants (56.3 percent) have practiced some non-drug method of inducing altered consciousness, most commonly meditation techniques, but this doesn't seem to effect the numbers of paranormal experiences under the influence of drugs ($M = 0.098$). There were, however, significant differences between Yes and No in regard to "spiritual seekers" ($p = 0.014$), have had "paranormal experiences" without drug ($p = 0.034$), and in regard to "some kind of ritual" ($p = 0.036$) (Table 8).

Influence of Life Situation

Drug Users' Relationships with Their Families

Of the participants, three persons (18.8 percent) state that their (social) relationships with their families worsened due to drug abuse. Reasons given were: sense of guilt and anguish and the impossibility of discussing drug experience with one's family because they have a completely different lifestyle, as well as that secrecy about drug use bothers the user's conscience. Seven persons (43.8 percent) considered that relationships with their families have not been influenced at all. The remaining six persons (37.5 percent) think that relationships with their

Table 8. Frequency of Paranormal Experiences (Paranormal-Index) during Different Circumstances. Mann-Whitney U Test

		Mean rank	U	*p* (2-tailed)
Practiced non-drug method	Yes	9.56	8.5	0.098
	No	4.92		
Paranormal experiences without drugs	Yes	9.86	8.0	0.034
	No	5.14		
Doing ritual	Yes	10.25	10.0	0.036
	No	5.43		
"Spiritually seeker"	Yes	9.50	2.5	0.014
	No	4.36		

families have improved. That the relationships have improved is due to: deepened contact, ability to understand others better, easier to put oneself in other's situations, get less irritated by small things, higher tolerance, more sensitive as well as gained perspective in their way of seeing other peoples' life and behavior.

Experience that Life has Improved/Gotten Worse

Twelve persons (75 percent) state that life has improved due to drug use. At the same time, five persons (33.3 percent) experience that life has gotten worse (Table 9).

Since the question of how life is influenced was included (on the questionnaire) as two separate questions, it was possible to describe both positively and negatively experienced influences (Table 10).

Five people claimed to have experienced setbacks in their lives. Their comments are recounted here:

Depression
Flashbacks and attacks of anguish.
Panicky anguish and flashbacks.

Table 9. Responses to Questions of Life Quality and Using Drugs in Number of Participants and Percent

Question	Yes	No
Has your life improved due to drug use?	12 (75.0%)	4 (25.0%)
Has your life worsened due to drug use?	5 (31.2%)	11 (68.8%)

Table 10. Responses to Questions of the Psychedelic Impact on Life Options in Number of Participants and Percent

Psychedelic impact	Number of participants
Only better	8 (50.0%)
Both better and worse	4 (25.0%)
Only worse	1 (6.2%)
Neither better nor worse	3 (18.8%)

A small increased risk of losing one's grip on life due to fixating on the effects of drug more than on life itself.
Labeled a criminal. (The person described imprisonment due to illegal drug-dealing; that is not recounted here.)

Twelve people claimed to have experienced improvements in their lives. Their comments are recounted here:

It is easier for me to understand myself and others. Have gotten more humble.
Broader acceptance of life and its possibilities. Openness for the unknown new and creative. See odd solutions to everyday problems that are more creative.
They were enjoyable and interesting experiences and they have enriched my life, which I think that most enjoyable and interesting experiences do.
I have gotten a broader perspective on life.
Life-experience.
Gives a new dimension to life. I can draw strength and comfort in something else. At the same time, I understand that I must keep my feet squarely on the ground to avoid spacing out and becoming a drughead.
Why, I don't know. Psychedelic experiences can often be difficult to translate into words.
More humble and calmer.
More humble encountering life. My life has become more meaningful. See connections more easily, more creative, find solutions more easily. Easier to do and complete things. More motivation to live.
Perspective on reality has changed, I have learned to enjoy life and have taken fantastic trips which I nurture tenderly in my heart. Humbleness encountering the world has increased intact with feelings such as "to be one with the world."
See everything as more naturally obvious. Everything is clearer (especially after a trip), understand the meaning of things and events in another way.
I have become more broad-minded, learned new things about myself which led to a more positive attitude of life.

Approach to Existential Questions

Of the respondents questioned, ten persons (62.5 percent) answered that they believe in life after death and six persons (37.5 percent) that they do not. According to 11 participants (68.7 percent), their views have not been influenced by their use of psychedelic drugs, while five participants (31.2 percent) state that their views on this matter have been influenced. The five participants belong to the High group. A belief in God or a corresponding higher power is something that six participants (40 percent) have, while nine participants (60 percent) do not. That view has not been influenced by their own drug use according to 12 participants (80 percent), and three participants (20 percent) have been influenced in their

views by drug use. Also, these three "belief-changers" belong to the High group. Two participants (12.5 percent) have become more scared of death as a result of drug use. Seven participants (43.8 percent) have not been influenced at all, and seven participants (43.8 percent) have become less scared of death. Some comments given on feelings about death:

> Experienced my first chance to leave the earthly. Possibly like when one dies. Not scary but on the contrary a positive experience.
> Have been terribly scared of death—now I know that it is nothing to be scared of.
> Have learned that we are so much more than we think we are and that life is not only the physical body's functions.

DISCUSSION

This study has given an overview of some of the experiences connected with psychedelic drug use. The experiences which were reported correspond well with those which Grof described, especially in regards to experiences on the transpersonal level. Interesting is that many of these transpersonal experiences showed great similarities to the diversity of studies which have been done on near-death experiences (NDE) [13, 14]. This type of experience (both NDE and drug-induced) is generally independent of the individual's race, culture, or religion. It seems to be a common human characteristic which has a strictly biological basis. It is also interesting that certain types of transpersonal experiences show many similarities with religious experiences which are described in old religious texts [15, 16].

One of the most common experiences which has been revealed here is "having seen foreign places, landscapes, and buildings." Why this type of experience is quite frequent might be explained by the fact that it does not take a particularly large dose of the drug to bring about changed visual impressions. A reasonable guess is that the less experienced people in the Low Group have taken lower doses each time than the more experienced. Therefore, that is an experience type which "everybody" has had the possibility of experiencing. Many other of the "deeper types of experience" are largely dose-related. As support for that guess, it can be adduced that the High Group had significantly more "paranormal experiences." Further support for the idea that the High Group took higher doses than the Low Group is that five people of the eight which are part of the High Group have reported "ceased to exist as an individual." In the Low Group, only two people experienced that. That experience of ego death is dose-dependent.

Another conceivable explanation for the more experienced High Group's more frequent "deeper" experiences may be "better mental techniques" and greater motivation to reach this state. Several results from this study point in that direction. Significantly more religious experiences were present among those who believed in God or corresponding higher power. It was even so that those who performed

"ritual or other mental preparation" respective to those who reported "spiritually seeking" also had significantly more "paranormal experiences." This shows that the mental "tuning-in" has great importance for which experience can be had.

Two other types of experiences which also are quite frequent are "being changed into an animal" and "telepathic contact with another person." Just these two experiences are extensively documented in descriptions of ayahuasca-ceremonies in South America. These seem to be experiences which can be had by many people. One of the active substances in ayahuasca was called, by the way, "telepathine" before its exact chemistry was determined [17].

That nearly two-thirds (62.5 percent) of the participants say that they have experienced great fright and fear while under the influence of drugs also raises questions. Many of the experiences Grof describes are connected to liberation of earlier hidden unconscious material. That unconscious material is accompanied by fright and fear is perhaps natural. It can be discussed how many of the fear reactions are directly related to unconscious material and how many have other causes. Such other reasons can be the person's expectations (set) and the other circumstances during drug-intake (setting). We know that all the participants here have used the drugs illegally. Considering that the experiences are, to such a great extent, influenced by the "mental attitude," it is not unlikely that the identification of oneself as criminal can very well contribute to such unpleasant experiences. All that markedly increases the risk for scary experiences and persisting psychic trauma.

The method of sampling procedure which was used here made it possible to carry out a study of this sort. However, there are drawbacks with this method. Since all participants are anonymous, control is impossible as is follow-up of the circumstances during which the questions were answered. The possibility that the respondents did not answer truthfully must also be considered. It is also possible that the answers given are colored by myths and preconceived notions about drug experiences and the effects of drug use. On the other hand, not only positive but even negative experiences have been reported, both in terms of their experiences themselves and how these influence people later in life. Further evidence that the answers are true is the similarity of the result in this study to what was previously described in the literature [6, 18, 19].

The social description of the participants fails to correspond with the traditional picture of a dropout addict. Since we are dealing here with well-educated people where the majority are employed, it seems that these drugs attract an entirely different group of people than those normally associated with drug abuse behavior. Some of the participants seem to belong to the "rave-movement" and those who describe themselves as "spiritual seekers" might be defined as "New Age-spiritualists," but this is just speculation, since no uniform behavior could be found in this small study.

Several of the participants stated they experienced that life in some respect has become better due to their use of psychedelic drugs which ought to be a good

starting point for a new study. However, several respondents also stated that life for different reasons has become worse and that raises questions about treatment and therapy for the people who have psychic difficulties due to drug abuse. Since these drugs can give such sweeping experiences, it is of great weight that the concerned therapist is knowledgeable about that.

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