A preliminary survey of paranormal experiences with psychoactive drugs

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A PRELIMINARY SURVEY OF PARANORMAL EXPERIENCES WITH PSYCHOACTIVE DRUGS

By David P. Luke and Marios Kittenis

ABSTRACT: The occurrence of transpersonal experiences with psychedelic substances is well attested, and several surveys have consistently found a small relationship between paranormal experiences and the use of such drugs in general. Isolated investigations of experiences with specific drugs exist, but no surveys have systematically examined whether particular experiences relate to particular drugs. In an online survey, 139 respondents were recruited through parapsychology or psychedelic interest groups and completed a questionnaire detailing psychoactive drug-use behaviour and the frequency of occurrence of a number of paranormal, shamanic, and mystical type experiences. Patterns of drug-induced transpersonal experiences reported elsewhere were mostly corroborated, particularly the proclivity for telepathic experiences with cannabis, out-of-body experiences with ketamine, entity encounter experiences with N,N-dimethyltryptamine (DMT), and plant-spirit encounters with a host of psychedelic plants. Several small correlations were found between drug-use frequency and experience frequency with certain drug and experience types, particularly those termed mystical. As expected, alcohol and opiate/opioid-use did not correlate with any transpersonal experiences although, surprisingly, no sizable correlations were found for psi experiences and the use of any one type of drug, possibly due to the high rate of occurrence of psi experiences among both drug users and non-drug users with this particular sample.

Since the earliest anthropological reports began relating the traditional use of psychoactive plants with shamanism, witchcraft, and magic (e.g., see Schultes & Hofmann, 1992), there has been an association between such substances and paranormal phenomena. Following the discovery of the psychoactive effects of LSD by Albert Hofmann in 1943 and the subsequent boom in interest in so-called "psychedelic" substances, a body of anecdotal reports of paranormal experiences began surfacing among researchers (Luke, 2006) and, beginning in the 1950s, several experimental research projects were conducted to investigate the utility of psychedelic drugs in inducing ESP (for a review see Luke, in preparation). For the purpose of the present paper, a psychedelic drug is

> one which, without causing physical addiction, craving, major physiological disturbances, delirium, disorientation, or amnesia, more or less reliably produces thought, mood, and perceptual changes otherwise rarely experienced except in dreams, contemplative and religious exaltation, flashes of vivid involuntary memory, and acute psychoses. (Grinspoon & Bakalar, 1998, p. 9)

The dated medical term "hallucinogen" has not been favoured here because the clouded notion of hallucinations in relation to psychoactive drugs obscures far more than it explains (see Shannon, 2003). The term "paranormal," defying a good consensus definition, is here used to include a number of apparent phenomena beyond current scientific explanation that are commonly researched by parapsychologists—such as psi (ESP, psychokinesis), mediumistic communication, out-of-body experiences (OBEs), and near-death experiences (NDEs). Several apparent phenomena not so commonly investigated within parapsychology but which are of interest are also included here under this rubric—such as entity encounters, perception of auras, past-life experiences, and several mystical-type experiences.

Following political and legal sanctions in the industrialized nations, by the 1970s most experimental research with psychedelics had ceased whereas popular use of these substances continued, albeit illicitly. Consequently, research investigating the relationship between the use of these substances and the ostensibly paranormal has since been conducted largely through surveys, though often indirectly with psychoactive drug use as just one of many co-variables within surveys of paranormal experience.

Conducting a postal survey of paranormal experiences, Palmer (1979) created a questionnaire that included several items relating to drug use, which was randomly distributed within the state of Virginia. The questionnaire was subsequently adapted for use with members of the Association for Research and Enlightenment (Kohr, 1980) and Indian students (Usha & Pasricha, 1989a, 1989b). Palmer found a relationship between the reported use of "mind-expanding" drugs and being an ESP agent, having recurrent spontaneous psychokinesis (RSPK) and haunting experiences, having aura vision, and having OBEs, with some differences between the student and townspeople samples. The special sample surveyed by Kohr did not show any such relationship, most likely due to the diminished use of drugs among this group, whereas the Indian research found, similarly to Palmer, an association of drug use with ESP and OBEs, and additionally with apparitions and déjà vu. Furthermore, 18% of the Indian sample and 28-29% of the Virginian sample reporting the use of such drugs also had psi experiences while under their influence.

More recently, Kumar, Pekala, and Gallagher (1994) developed a drug-use scale to complement their measure of paranormal belief, ability, and experience, along with a measure of fear of the paranormal, which were combined to create the Anomalous Experiences Inventory (AEI). A number of subsequent surveys conducted exclusively with convenience samples of university students have consistently found a positive but weak correlation between the drug-use subscale and two of the AEI's other subscales, paranormal experiences (r = .13 to .29) and paranormal belief (r = .16 to .25) (Gallagher, Kumar, & Pekala, 1994; Houran & Williams, 1998; Pekala, Kumar, & Marcano, 1995a, 1995b; Simmonds & Roe, 2000;

Thalbourne, 2001). That these correlations were small, although significant, may be due in part to the generalized nature of the drug-use items in the AEI, which utilizes nominal yes-no answers rather than ordinal response categories. Additionally, the AEI drug-use subscale combines items relating to the use of heroin, cocaine, and alcohol, along with psychedelic drugs (LSD and marijuana). Yet, where the results were specified, the relationship between paranormal experiences and belief and the use of nonpsychedelic drugs was either negative or nonsignificant, or, where positive, was reduced in comparison to the positive relationship found with psychedelic drug use (Gallagher et al., 1994).

A handful of other surveys have targeted drug users as respondents, most often through discreet snowball sampling. The exception to this is an incidental survey by White (1997) that occurred through the collation of unsolicited responses to a "frequently asked questions" (FAQ) article about a particular drug, dextromethorphan (DXM), that was posted on a drug information site. White received so many reports of paranormal experiences with DXM, a dissociative drug commonly found in cough remedies, that a summary of the reports was published on the site, and is independently supported in part by a psychiatric-admission report published elsewhere (Price & Lebel, 2000). DXM users reported OBEs—most often to noncorporeal locations—NDEs, and a loss of the sense of causality, as well as a sense of presence, encounters with entities, and the occasional experience of ESP but not PK.

In a survey of 1970s Californian marijuana (hereafter called cannabis) users, most of whom had also tried LSD, Tart (1993) found that the majority reported psi experiences occurring under the influence of cannabis, most often telepathy (69-83%) or precognition (32%) but occasionally PK (13%). This latter finding is unique to Tart's survey. Seeing auras while under the influence was reported by 50% of the respondents, and 44% reported having OBEs, although not necessarily while "stoned." Elsewhere, a survey of kundalini-type experiences with users of psychedelic drugs also reported the experience of psychic powers, intuition, and an increased sense of empathy (DeGracia, 1995). In a similar survey, psychedelic drug users reported OBEs, telepathy, empathy with other organisms, psychogeographic traveling, and contact with entities, with heavier users reporting more experiences overall (Kjellgren & Norlander, 2000-2001).

Survey research solely investigating the occurrence of OBEs has likewise found these to be related to the use of psychoactive drugs, such as LSD and cannabis, with 18-37% of OBEs occurring through the use of such drugs (Blackmore, 1982, 1984; Blackmore & Harris, 1983). These findings are further supported by the results of the surveys already mentioned and led Blackmore (1992) to conclude that what she terms "hallucinogenic" drugs undoubtedly helped induce the OBEs and were more useful for this than other drugs (e.g., stimulants, tranquilizers, sedatives, and alcohol).

Although these surveys indicate that psychoactive drugs in general and psychedelic drugs in particular are associated with reports of paranormal experiences, it is unclear from this research which drugs are primarily related to which experiences. However, when we turn to anthropological, clinical, and even experiential research a picture of the possible taxonomy of such subjective paranormal experiences with differing substances begins to emerge. For instance, OBEs are occasionally reported to occur with most every type of psychedelic drug (Luke, in preparation) although such an experience is reported to occur most reliably with dissociatives such as ketamine (Department of Health, 2004; Jansen, 2001). In his ketamine model of the NDE, Jansen (1997) has proposed that this drug mimics the neurochemical process that occurs naturally during an NDE. Alternatively, Strassman (2001) has suggested that the endogenous psychedelic N,N-dimethyltryptamine (DMT) is fundamental to the NDE. Nevertheless, NDEs also seem to occur with the use of 5-methoxy-DMT (Roney-Dougal, 2001; Shulgin & Shulgin, 1997), a tryptamine that is very closely related to DMT. The NDE also occurs with other dissociatives besides ketamine, such as DXM (White, 1997). The occurrence of entity encounters and a sense of presence are also associated with these two groups of psychedelic drugs—dissociatives and the dimethyl group of tryptamines—the latter in particular. These experiences may also occur with other tryptamines, such as LSD, but not so prominently as with DMT and its related substances.

There is also a healthy body of folklore and first-person reports of encounter experiences with plant spirits or intelligences—what Letcher (2004) calls "animaphany"—with the use of naturally occurring plant psychedelics such as *Psilocybe* mushrooms, *Salvia divinorum*, and peyote, to name a few (e.g., Atkinson, 2004; Letcher, 2004; Luke, 2005; Vayne, 2001). Similarly, certain plants, such as datura and other members of the *Solanaceae* family, or certain decoctions–such as ayahuasca, which contains DMT–are known in folklore to supposedly enable communication with the dead. Ayahuasca, known as either "vine of the dead" or "vine of the soul" (Dobkin de Rios, 1972), is also said to produce shamanic death-rebirth experiences as well as telepathy, clairvoyance, and OBEs. Furthermore, Roney-Dougal (1991, 2001) has proposed that the psychoactive harmala alkaloids also found in ayahuasca, such as harmaline (once called telepathine), are responsible for producing ESP-like experiences. However, reviewing the complex neurochemistry involved, Roney-Dougal (2001) submits that it may be the DMT also present in such brews that induces the ESP experience (for a summary, see Luke, in preparation).

This paper aims to build on previous surveys by verifying past findings and investigating the relationship of certain substances to particular subjective paranormal experiences. Primarily, it seeks to identify possible psi-conducive substances or classes of substances and to establish the veracity of folklore and first-person accounts.

Method

Participants and Recruitment

There were 139 self-selecting respondents who completed the questionnaire online. Respondents were drawn from several groups, and it was requested that the questionnaire be completed by anyone who had had a paranormal experience or who had taken psychoactive drugs, and particularly by those of both categories. A request for respondents was included in an article about psychoactive drugs and parapsychology that was published in the Bulletin of the Multidisciplinary Association for Psychedelic Studies (MAPS) (Luke, 2004b). Requests for respondents were also made during talks on the topic at a conference on Consciousness (Luke, 2004c) and also at an invited lecture for the Society for Psychical Research (Luke, 2004a), both in the UK. Furthermore, notices were posted on parapsychology e-mail forums (the Parapsychology Research Forum, the Psi Society, Parapsychology Students, and Psipub), on psychedelic discussion forums (Psychonauts UK), and on a popular psychedelic-trance music forum (Psy-forum). A link to the questionnaire was also made available on the Parapsychology Association Web site. One third of the respondents (48) indicated that they found the survey through surfing the internet, almost certainly via the sources mentioned, with approximately another third (45) responding to the request through an interest in psychedelics and the remaining third coming by request from sources interested in parapsychology (31) or from unidentifiable sources (15). Responses were collected between June 2004 and February 2005 by convenience. The mean age reported was 32 years, with 62% male and 35% female respondents (3% no indication).

Questionnaire

Simple demographic details were requested and were followed by the frequency of use of 10 classes of psychoactive drugs, ranging from "never" to "excessively" on a 7-point scale (see Appendix). Psychedelic drugs—as distinct from alcohol, prescription drugs, stimulants, opiates, and opioids—were subdivided into categories of cannabis, relaxants (e.g., GHB), empathogens (substances—usually phenethylamines such as 2CB, 2CI, and MDMA, which is known as "ecstasy"—that are characterised experientially by empathic emotions), dissociatives, and other psychedelics. A list of 18 (1 was removed prior to analysis as it was considered irrelevant, leaving 17) different types of paranormal, shamanic, and mystical-type experiences followed, with the same 7-point response scale for frequency of occurrence as was used for the frequency of drug use. The statements were generated by the authors to represent the kinds of experiences reported with these drugs, based on previous research (e.g., Tart, 1993;

White, 1997). Each of these types of transpersonal experience was accompanied by a request to specify the influence of any psychoactive drugs and the corresponding frequency of experience while under the influence of such drugs, again on a 7-point scale. A final open-ended question asked if respondents had actively taken any substances to obtain any of the listed experiences.

Procedure

Due to the imperative of maintaining the complete anonymity of drug users and to the geographically remote distribution of potential respondents, the questionnaire was made available online, which, in the circumstances, was considered to provide the most candid forum for such research (Hewson, 2003). The questionnaire was accessed via a short article about psychoactive drugs and parapsychological research that had appeared in the MAPS Bulletin (Luke, 2004b), and the author's e-mail address was made available for contact. Before the questionnaire, a notice informed respondents that their responses would remain anonymous and confidential.

Results and Discussion

Data Treatment

To ascertain whether any of the questionnaires had been completed randomly, the data were inspected for contradictory responses, such as higher frequencies for experiences with drugs where no drug was specified. No such data were found so none were discarded. Of the 10 drug categories (see Appendix for examples), the few responses given in the "other" category were examined and recoded into one of the other nine drug categories.

Table 1 shows the percentage of respondents who reported the use of different classes of drugs in varying frequencies. Alcohol was by far the most common drug, followed by cannabis and then by psychedelic drugs, which were used occasionally or more often by about half of the sample. Respondents using one type of drug tended to report the use of other types as well, with the frequency of drug use correlating reasonably well (Pearson's $r > .4$) across all types with the exception of psychoactive prescription drugs—which did not correlate well with cannabis, psychedelics, or empathogens—and conversely the use of alcohol, which only correlated well with these latter three substances and with stimulants. The strongest correlations ($r > .7$) of the frequency of use were between psychedelics and both empathogens and cannabis.

TABLE 1
THE USE OF DRUGS OF DIFFERENT TYPES AMONG RESPONDENTS

	Percentage of respondents using the drug (N = 139)		
	At least once	More than once	Often or more frequently
Alcohol	90.6	87.1	42.4
Cannabis	77.7	69.8	43.2
Psychedelics	56.8	49.6	28.8
Stimulants	51.1	40.3	12.2
Empathogens	43.9	36.7	16.5
Prescription	36.0	29.1	12.2
Dissociatives	35.3	24.5	7.9
Opiates/oids	31.7	16.5	5.8
Relaxants	27.3	20.9	7.2

Table 2 shows the percentage of drug users and non-drug users reporting each of the 17 transpersonal experiences. The drug users category was intended to include all prolific illicit-drug users and was defined as anyone using any psychoactive drug except alcohol and prescription drugs more than once or cannabis more than just occasionally, given its mild effects and widespread use socially. Non-drug users were those remaining. Except for precognition, there was a clear trend for a greater proportion of drug users than non-drug users to report experiences, particularly OBEs, telepathy, encounters with beings of all types, and mystical-type experiences. Furthermore, in all cases a sizable proportion of the drug-using respondents also reported these experiences occurring while they were under the influence of such drugs, whereas this was not the case with those in the non-drug group, who used marijuana only occasionally or less frequently, and/or alcohol or prescription drugs. The most widespread occurrences among drug users under the influence were experiences of being out of the body, telepathy, becoming part of universal consciousness, and seeing auras of light. Caution is raised that the sample was not representative of the general population and that, relatively, the number of reported experiences is somewhat elevated in both the drug and non-drug groups of this paper in comparison to most general surveys (see Stokes, 1997).

The percentage of respondents who had tried an illicit drug even once (N = 110) and who reported a psi experience while under the influence (47%) was somewhat higher than the 28-29% and 18% found previously (Palmer, 1979; Usha & Pasricha, 1989a, 1989b), as might be expected from this sample. In comparison to the previous report by Tart (1993) of paranormal experiences among most users while under the influence of cannabis, this survey found that somewhat fewer experienced cannabis users (those using it often or more frequently, N = 60) than in Tart's study reported the occurrence of telepathy (20%), precognition (12%), psychokinesis (12%), and auras (22%) while under the influence. Yet, in this group the number reporting OBEs either with or without cannabis (62%) was larger than in Tart's study (44%).

TABLE 2
THE PERCENTAGE OF DRUG USERS AND NON-DRUG USERS REPORTING TRANSPERSONAL EXPERIENCES

Reported experience	Drug users* (N = 85)		Non-drug users (N = 54)	
	% reporting experience once or more	% reporting experience while on drugs**	% reporting experience once or more	% reporting experience while on drugs***
OBE				
(a) OBE_1 - on the material plane	64.7	44.7	40.7	9.3
(b) OBE_2 – on another plane	52.9	43.5	27.8	3.7
ESP				
(c) Telepathy	67.1	50.6	46.3	1.9
(d) Clairvoyance	61.2	36.5	55.6	1.9
(e) Precognition	48.2	21.2	51.9	1.9
(f) Communication with the dead	36.5	18.8	33.3	3.7
PK				
(g) Influence "other" with my mind	41.2	22.4	25.9	1.9
Causality				
(h) Lost sense of causality	37.6	35.3	18.5	1.9
Death				
(i) Death, rebirth, or past life	50.6	31.8	29.6	1.9
Entity				
(j) Entity encounter	38.8	31.8	14.8	1.9
(k) Mythical being encounter	27.1	18.8	5.6	1.9
Mystical				
(l) Plant/substance entity encounter	45.9	42.4	7.4	0.0
(m) Divine being encounter	40.0	28.2	18.5	0.0
(n) Powerful religious awakening	48.2	38.8	25.9	1.9
(o) Seeing an aura of light	60.0	45.9	35.2	1.9
(p) Universal consciousness	65.9	56.5	27.8	3.7
(q) Dissolving into pure energy	48.2	42.4	14.8	3.7
At least one listed experience	95.3	83.5	77.8	29.6

* Drug users were defined as anyone using psychoactive drugs, except alcohol and prescription drugs, more than once, or marijuana more than just occasionally.
** Does not include alcohol or prescription drugs.
*** Includes alcohol, prescription drugs, occasional marijuana use, and LSD – tried once.

However, Tart's initial survey was conducted in 1970 among Californian cannabis-using students, epitomizing psychedelic drug culture

at its height, a different sample from the one used in this study. Nevertheless, similarly to Tart's study, telepathy, clairvoyance, and OBEs on the material plane were the experiences most often reported to occur while under the influence of cannabis (Table 3).

Investigating reports of specific transpersonal experiences with particular drugs, we believe it is logical to consider which experiences are reported to occur most frequently under the influence of particular drugs rather than to consider which drugs most frequently are reported to coincide with particular experiences. This is because certain drugs may be more popular and thus more widely and more frequently used than other drugs. Certainly this is the case with alcohol and cannabis, yet no specific breakdown for the use of other drugs was available in this limited survey, which was intended to be as concise as possible. Further research of this type would benefit from an indication of the frequency of use for each drug so that a direct comparison of the prevalence of experiences can be made between drugs, though such questions are complex.

Table 3 shows the types of experience that occurred with particular drugs and the number of respondents who reported such an experience with that drug. With the exception of alcohol and cannabis, no direct indication is given of how many respondents have used each of the particular drugs, so the experiences presented only give an indication of which experiences are the most widespread among users of particular drugs (how many people in the overall sample report them) but not how prevalent they are (i.e., how often they occur with each user and each use). However, respondents also provided an indication of how frequently the experiences occurred under the influence of such drugs, but generally where at least several data points (five or more) could be compared, these tended to give a mean frequency of occurrence of "occasionally" for most experiences with most drugs. The exceptions to this are marked with an asterisk and represent a mean reported frequency of experience with the drug of between 4 and 5, or between "often" and "regularly."

It is apparent that the majority of specified drugs prominent in accompanying experiences come under this survey's classification of either psychedelic or dissociative, with the exception of alcohol, cocaine, and prescription drugs. In any case these later substances were associated with very few experiences, despite the widespread use of alcohol. A number of isolated experiences were also reported in conjunction with the use of other substances not reported in Table 3, namely the synthetic phenethylamine compounds 2CT7, 2CB, and 2CI (see Shulgin & Shulgin, 1991), with which aura experiences were most widespread; amphetamines, opium, ether, iboga, coleus, and 5-MEO-DiPT, which were reported but were exceedingly limited in any type of experiences; and finally datura, which accompanied one report of communication with the dead as expected from the literature.

Considering that LSD and *Psilocybe* mushrooms are no doubt among the most common psychedelic drugs, it is not surprising that they

provided the most widespread reporting of experiences although the far more common substance cannabis was shown to exhibit equally widespread experiences but to a much lesser degree, indicative of this substance's milder psychedelic effects. On the other hand, the relatively rare psychedelic substance DMT and its even more obscure relative 5-MEO-DMT were shown to produce quite widespread experiences, probably indicating the reliably powerful effect of these two substances.

Considering those experiences that typify each drug across a spectrum of users, we found that the results corroborate many of the observations made in previous research. Largely supporting Strassman's (2001) observations, DMT was widespread in inducing entity contact experiences and OBEs, although primarily to other dimensions, and like 5-MEO-DMT, DMT commonly gave the experience of dissolving into a universal energy. The hypothesis that DMT is fundamental to the NDE (Strassman, 2001) was partially borne out by the relatively widespread reporting of death-like experiences (dying, rebirth, or memory of a past life) although such experiences seemed to be relatively more widespread with 5-MEO-DMT, as observed elsewhere (Luke, 2005; Roney-Dougal, 2001; Shulgin & Shulgin, 1997). However, the death-experience scale used in this study was too generalized, and a more specific measure of NDE would clarify this issue in the future.

Nevertheless, DMT, its close relative 5-MEO-DMT, and ayahuasca, the decoction in which DMT is found, all shared the same characteristic transpersonal features, although relatively more ayahuasca users reported contact with the plant/substance spirit than they did with the specific chemical compounds, as might be expected because the notion of sentience is more easily related to living organisms, though not exclusively (e.g., see Harvey, 2005).

Reports of communication with spirits of the dead were also relatively widespread with ayahuasca, as expected. Interestingly, none of these 3 tryptamine substances were accompanied particularly by psi-experiences save the odd report with DMT, a finding somewhat counter to Roney-Dougal's (2001) later proposition that DMT might induce the ESP experiences prevalent with ayahuasca. Furthermore, the dearth of ESP experiences with ayahuasca in this sample failed to support the widespread reports of such experiences (see Luke, in preparation), and consequently Roney-Dougal's (1991) earlier proposition that the harmala alkaloids in ayahuasca induce ESP experiences was not supported here either. Indeed, the findings here might suggest that ayahuasca is, experientially, largely akin to the dimethyl tryptamines, though no firm conclusions can be made with this subsample that has so few people reporting the use of such substances. Variations in experience between reports may be due a variety of factors such as set (the experiencer's mindset prior to the drug experience), setting (the environment in which the experience occurs), expectation, intention, and so on, during the consumption period—factors that have

TABLE 3 (A)
THE SUM OF RESPONDENTS REPORTING EXPERIENCES WITH DIFFERENT DRUGS

Psychedelic tryptamines					Dissociatives		
LSD	*Psilocybe* Mushroom	DMT	5-MEO-DMT	Ayahuasca	Ketamine	DXM	Nitrous Oxide
Unity 21	*Plant 20	OBE_2 14	Energy 4	Plant 5	OBE_2 9	Telep 2	OBE_1 3
Aura 21	Unity 17	Entity 13	Death 3	Entity 3	OBE_1 6	Clair 1	OBE_2 1
Telep 14	Relig 14	Energ 10	Cause 2	Medium 3	Death 4	PK 1	Unity 1
Cause 14	*Aura 13	Divine 7	OBE_2 2	Death 2	Cause 4	OBE_1 1	
OBE_1 14	Entity 12	Plant 7	OBE_1 1	Myth 2	Unity 4	Unity 1	
Relig 13	Divine 10	Relig 7	Medium 1	Unity 2	Energy 4	Energy 1	
OBE_2 12	*Clair 10	Cause 7	Entity 1	OBE_2 2	Clair 2	Relig 1	
Energ 11	Telepath 9	Death 6	Myth 1	OBE_1 1	PK 2		
Death 9	OBE_1 8	Unity 6	Unity 1	Energy 1	Relig 2		
Clair 8	OBE_2 7	Medium 3	Relig 1	Divine 1	Divine 1		
PK 5	Myth 7	OBE_1 3		Relig 1			
Precog 4	Precog 7	Myth 2					
Divine 4	Death 7	Clair 2					
Myth 4	Energy 7	Telepath 1					
Entity 3	Medium 5	Precog 1					
Plant 3	PK 5						
Medium 2	Cause 5						

* mean of frequency of occurrence ≥ 4 ("often") where $N \geq 5$

TABLE 3 (B)
THE SUM OF RESPONDENTS REPORTING EXPERIENCES WITH DIFFERENT DRUGS

	Other psychedelic plants			Other common drugs			
Cannabis	*Salvia Divinorum*	Mescaline Cacti	*Amanita Muscaria*	MDMA	Alcohol	Cocaine	Prescribed Drugs
*Telep14	Plant 10	*Aura 6	Plant 1	*Aura 8	Mediu 2	Mediu 1	Medium 1
Clair 8	Entity 3	*Plant 5	Death 1	*Telep 6	Telep 1	Clair 1	Precog 1
OBE_1 8	Cause 2	*Unity 5	OBE_2 1	*Unity 5	PK 1	PK 1	PK 1
*Mediu 6	OBE_1 2	Energy 3		Energy 4	OBE_1 1	OBE_1 1	OBE_1 1
*Plant 6	OBE_2 2	Relig 3		Relig 4	Cause 1	Cause 1	OBE_2 1
Energy 6	Unity 2	Clair 2		OBE_2 3			Death 1
*Unity 6	Divine 1	PK 2		OBE_1 2			Entity 1
Aura 6	Myth 1	Entity 2		Clair 2			
Death 4	Relig 1	Divine 2		Death 2			
Divine 4	Death 1	Causality 2		PK 1			
Cause 4	Telepath 1	OBE_1 2		Divine 1			
Relig 3		OBE_2 2		Entity 1			
Precog 3		Telep 1		Cause 1			
PK 3		Precog 1					
Entity 2		Death 1					
Myth 2							
OBE_2 2							

* mean of frequency of occurrence ≥ 4 ("often") where $N \geq 5$

been shown to be fundamental to the nature of the psychedelic experience (Leary, Litwin, & Metzner, 1963).

Examining the experiences associated with ketamine, we found that OBEs of both kinds, but particularly to other dimensions, were the most widespread, as has been suggested elsewhere (e.g., Department of Health, 2004). Furthermore, somewhat supporting Jansen's (1997) ketamine model of NDE, death-related experiences were quite prominent with this drug although these do not necessarily equate to NDEs because of the generality of this item. Nevertheless, death-type experiences were also found to occur quite widely with DMT substances, as already noted, and with LSD to some extent, as also noted by Grof (1990).

In line with previous accounts (e.g., Atkinson, 2004; Letcher, 2004; Luke 2005; Vayne, 2001), reports of "sensing an intelligence or spirit being in an ingested plant or substance" were found to be most widespread while respondents were under the influence of the plant substances: psilocybin-containing mushrooms, ayahuasca (a mixture of plants), mescaline-containing cacti, and *Amanita muscaria*, but especially with *Salvia divinorum*. Such plant-spirit experiences also occurred with the use of the cannabis plant, although the most widespread experiences with this drug were clairvoyance and OBEs on this plane and, primarily, telepathy, making this substance a prime candidate for ESP research, as has already been advocated by Tart (1993) for a number of reasons. The dissociative DXM is also a potential candidate for further ESP research, with some reports of psi occurring with its use both here, albeit with few specific reports, and elsewhere (Price & Lebel, 2000; White, 1997). There were also relatively widespread reports of telepathy with LSD and particularly with MDMA, a drug that is characterized by its capacity to induce empathic experiences and that has elsewhere been reported to induce telepathic experiences (Eisner, 1989; Saunders, 1993). *Psilocybe* mushrooms too demonstrated some relatively widespread capacity to accompany psi experiences of all kinds, particularly clairvoyance but even PK to some extent. However, possibly because of the more infrequent experience of PK, there did not seem to be any one substance that was related to it, with the possible exception of *Psilocybe* mushrooms, mescaline, and LSD, although none of these convincingly.

As expected (e.g., see Smith, 2000), most of the psychedelic drugs listed (including the dissociatives) also featured many mystical-type experiences, particularly "unity consciousness" experiences, but also lasting religious awakenings and experiences of "dissolving into the pure energy of the universe." Seeing auras of light was also quite widespread and reported to occur frequently with a number of drugs, particularly mescaline cacti (as also noted by Tart, 1972) and MDMA, but also with LSD and to a lesser degree with cannabis and *Psilocybe* mushrooms. That auras were not reported at all with DMT is not surprising because this substance is best experienced with the eyes closed, although interestingly no auras were reported with 5-MEO-DMT or ayahuasca either.

Table 4
Correlations Between the Frequency of Drug Use and the Frequency of Experiences by Type

	Reported type of experiences (N = 139)						
Drug type	OBE	ESP	PK	Causality	Death	Entity	Mystical
Alcohol	.05 (.548)	-.14 (.104)	-.07 (.427)	.09 (.307)	.00 (.963)	-.01 (.869)	.06 (.501)
Prescription	.02 (.801)	-.03 (.692)	-.05 (.576)	.10 (.231)	.19 (.026)†	.02 (.821)	.09 (.278)
Stimulants	.20 (.016)†	.11 (.182)	.09 (.317)	.24 (.004)†	.16 (.066)	.19 (.028)†	.26 (.002)††
Opiates/oids	.07 (.442)	.02 (.786)	.09 (.282)	.19 (.028)†	.07 (.399)	.11 (.195)	.19 (.024)†
Cannabis	.17 (.048)†	-.02 (.812)	.05 (.530)	.11 (.187)	.035 (.679)	.17 (.051)	.30 (.0003)*
Relaxants	.36 (.0001)*	.20 (.016)†	.21 (.011)†	.25 (.003)††	.22 (.098)††	.33 (.0001)*	.35 (.0001)*
Empathogens	.25 (.003)††	-.10 (.226)	.13 (.125)	.22 (.009)††	.11 (.194)	.12 (.175)	.26 (.002)††
Dissociatives	.26 (.002)††	.05 (.524)	.19 (.023)†	.20 (.018)†	.24 (.004)††	.23 (.006)††	.29 (.0006)*
Psychedelics	.30 (.0004)*	.03 (.689)	.20 (.017)†	.23 (.008)††	.19 (.026)†	.20 (.020)†	.44 (.0001)*

† $p < .05$; †† $p < .01$; * $p < .0008$ all probability figures (in parentheses) are two-tailed

Table 4 shows the Pearson correlations for the frequency of use of each drug type with the frequency of experiences. For ease of interpretation and statistical power, the 17 transpersonal experiences were amalgamated into seven categories comprising OBE (a, b), ESP (c, d, e, f), PK (g), non-Causality (h), Death (i), Entity (j, k), and Mystical (l, m, n, o, p, q) (see Appendix for items a-q). To justify these categories, cross-correlations of the frequency of occurrence were inspected to ensure that items complemented each other. By this means, the ESP category contains the items relating to precognition, clairvoyance, telepathy, and also communication with the dead but not PK, which was seen as being independent from the other psi-type experiences. Encounters with plant spirits and divine beings were seen to relate best with other Mystical experiences, although they were also reasonably well associated with Entity experiences. On the whole, the occurrence of most experiences intercorrelated to some extent, so groupings are statistically quite arbitrary but are valid in indicating general conceptual differences.

In all, 61 correlations were calculated, so the alpha value was corrected to $p < .0008$ (identified by *) to keep the .05 overall Type 1 error

value. As expected, alcohol, prescription drugs, stimulants, and opiates/opioids did not significantly correlate with any transpersonal experiences, although, surprisingly, neither did empathogens (which include ecstasy, MDMA). Contrary to expectations, no significant correlations were found for ESP or PK, although some small nonsignificant correlations in the expected direction were found between PK and the frequency of use of dissociatives, psychedelics, and relaxants, and this latter group also correlated marginally with ESP. A post hoc analysis of the individual ESP-item correlations with the frequency of use of relaxants gave small significant correlations with telepathy, $r(137) = .26$, $p = .002$ and clairvoyance only, $r(137) = .25$, $p = .003$. However, these findings have not been reported anywhere else in the literature, and when asked to indicate which drugs had been associated with specific experiences, none of the respondents in this survey mentioned the influence of any relaxants, somewhat contrary to what might be expected from these correlations, so these results are possibly artifactual. Most likely, the general trend in the data for non-drug users to have fewer experiences than drug users has influenced the figures in relation to relaxants because only 27.3% (see Table 1) of the sample had actually used these substances. Further post hoc analysis shows that the removal from the sample of those who hadn't used relaxants eliminated the correlational trends between relaxants and the types of experience in all categories except for Entity-encounter experiences, $r(36) = .33$, $p < .05$, which may be a genuine relationship.

The lack of correlations between psi and drug-use frequency was surprising given previous findings and the greater number of drug users reporting telepathy, clairvoyance, mediumship, and PK (Table 2), as well as the relative number of psi experiences being reported with certain substances, such as cannabis (Table 3). Perhaps the most likely possibility is that the sample consisted largely of either psychedelic drug users, who tended to report the whole range of experiences, or nonpsychedelic drug users who, in this sample, had an interest in parapsychology and had paranormal experiences, as was requested in recruitment, but which were only really of the psi type commonly studied in parapsychology. Indeed, non-drug user figures in Table 2 exceed psi-type experiences reported in most general surveys (Stokes, 1997). In any case, the sample used in this study was very unlikely to be representative of the general population or directly comparable to previous samples, which exclusively used either drug users or students or persons responding to random mail-outs.

As was predicted, OBEs correlated significantly with relaxants and psychedelics, near-significantly with dissociatives and empathogens, and tentatively with cannabis and stimulants, supporting Blackmore's (1992) assertions about the efficacy of "hallucinogenic" drugs in inducing the OBE. Further post hoc analysis revealed that these correlations were due entirely to Type 2 OBEs, to another dimension. Furthermore, as expected, Mystical experiences correlated significantly with the use of psychedelics, relaxants, cannabis, and dissociatives and near-significantly with

empathogens, and, surprisingly, with stimulants too. Of note, there were also varying degrees of near-significant correlations between Death, non-Causality, and Entity-experiences with the frequency of use of relaxants, dissociatives, and psychedelics. Of particular interest, a near-significant (p <.004) correlation was found between the use of dissociatives and Death experiences as might be expected from Jansen's (1997) ketamine model of NDE.

In keeping with the previous findings of correlations, ranging from $r = .13$ to .29, between the occurrence of paranormal experiences (including mystical experiences) and the use of all drugs (excluding prescription drugs) as measured with the AEI, the present study also found a positive correlation of $r = .46$ ($p < .001$). The greater correlation in this study was probably due to the use of different sample types, and variations in the questions used. In addition, an overall correlation was calculated between the frequency of paranormal experiences and the frequency of drug use (excluding alcohol and prescription drugs) that gave a small positive value of $r = .31$ ($p < .001$).

Open-Ended Responses

In response to the open-ended question, several respondents indicated that they had specifically taken drugs, almost exclusively psychedelic, to actively induce the aforementioned experiences. Many of these reported that the paranormal effects were largely unpredictable although some reported having success in inducing certain experiences. Notably, two respondents from different sources reported recurrent group telepathy experiences with DXM, and several others suggested that their psychic experiences, although unpredictable, had been activated or increased generally since taking psychedelics. However, others said that they had already had the experiences before they started taking drugs. Four respondents explicitly stated that DMT consistently induced entity-contact experiences, described in one case as elves. Several respondents also reported encounter experiences with angels (independently with ayahuasca, mushrooms, DMT, and ketamine), and several others reported the use of a range of psychedelics specifically to contact "the Divine" or plant spirits. Ritual, reverence, and the religious or sacramental use of these substances was emphasized by many of those who had actively sought transpersonal experiences.

Conclusion

The findings of previous surveys and observations from other research presented earlier have been largely supported by this paper, except perhaps for the relationship between ayahuasca and psi experiences. However, beyond supporting previous work, this survey has

also gone some way toward identifying a taxonomy of paranormal and mystical experiences that tend to occur with different psychoactive drugs. That such consistent experiential syndromes exist with different mind-altering substances would be expected from such chemically diverse yet similar acting psychoactive substances. Furthermore, although most of the psychedelic drugs mentioned here appear to produce some fairly generic transpersonal experiences, each substance also shows the propensity for quite unique effects, such as the widespread experience of entity contact with DMT. Some substances, such as cannabis, *Psilocybe* mushrooms, DXM, mescaline, and LSD also show promise in helping to understand the experience of ESP, and other substances, such as nitrous oxide, ketamine, or 5-MEO-DMT may prove valuable in understanding out-of-body and near-death experiences.

Nevertheless, it is important to note that relating any one substance exclusively to any particular experience would be an oversimplification because it is the states that the substances induce rather than the chemicals themselves that are probably most salient, so factors of set, setting, intention, and expectation are paramount, as well as idiosyncratic neurochemistry. Such nonpharmacological factors are expected to contribute considerably in shaping the nature of experiences with psychedelic drugs, and this should be considered when interpreting our findings. Further phenomenological research might profit from investigating which specific alterations to consciousness are concomitant with particular paranormal experiences.

Whether or not such chemically induced subjective experiences correspond to genuine paranormal phenomena is unknown and a matter of debate because the experimental research to date, although promising, is rather preliminary and inconclusive (Luke, in preparation). What is obvious from the findings of this survey, however, is that psychedelics have a clear propensity for accompanying a wide variety of transpersonal and psi experiences that are highly comparable to spontaneous events. This factor is valuable in studying the phenomenology of such experiences and exploring potentially psi-conducive states of consciousness in experimental psi research, though there are obvious practical, ethical, and legal considerations with this research. Regardless of whether these psi experiences can be shown to occur as actual recordable events under tight experimental control, this area of research can still be fruitful in informing us about the psychological experience of psi and the neurochemistry of the psi experience.

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APPENDIX

Paranormal Experience and Drug Use Questionnaire

1. Please indicate how frequently you have used each of the following classes of drugs:
[responses: *Never, Once, Occasionally, Often, Regularly, Extensively, Excessively*]

Alcohol
Psychoactive prescription drugs
Stimulants (e.g. cocaine, amphetamines)
Opiates/Opioids (e.g. opium, heroin, methadone)
Cannabis (e.g. marijuana, hash, grass, skunk)
Relaxants (e.g. kava kava, GHB, GBL)
Empathogens (e.g. ecstasy, 2-CB, 2-CI)
Dissociatives (e.g. ketamine, PCP, DXM, nitrous oxide)
Psychedelics (e.g. LSD, magic mushrooms, mescaline, DMT)
Others, not listed or of unknown category (please specify)

2. Please indicate which of the following experiences you believe you have had. If the experience also happened whilst you were under the influence of any psychoactive substance please also *list* which substances these were and indicate how frequently the experience occurred only under the influence of the substances.
[Three response columns: Total frequency (7-point scale), Under the influence of (insert name), Frequency whilst under the influence of (7-point scale)]

"Whilst not dreaming, and without any normal explanation I have had the experience of…"

(a) being located outside my physical body somewhere on this plane
(b) being located outside my physical body somewhere in another dimension
(c) knowing what somebody was thinking so much that it must be telepathy
(d) obtaining previously unknown information without any possible access to it
(e) foretelling a future event by some kind of precognition
(f) communication with a deceased person or spirit
(g) influencing the behaviour of objects or people magically with my mind
(h) completely losing sense of causality
(i) dying, rebirth, or memory of a past life
(j) encountering a non-animal intelligent entity

(k) encountering a mythical being
(l) sensing an intelligence or spirit being in an ingested plant or substance
(m) contacting a higher power or divine being
(n) a powerful religious awakening, which has had a lasting effect on me
(o) seeing fringes of coloured light around people, commonly called auras
(p) my consciousness connected with the universal consciousness of all things
(q) dissolving into the pure energy of the universe

3. Have you, or do you ever take any substances to actively create any of the above experiences? If so please elaborate (open answer)