CONNECTING, DIVERGING, AND RECONNECTING: PUTTING THE PSI BACK INTO PSYCHEDELIC RESEARCH[1]

By David Luke

It's great to have so many wonderful characters here from the field. Were the great scientist Isaac Newton in my place now, he would say how he only got to this position by standing on the shoulders of giants. I rather regret that Isaac Newton isn't standing where I am now, because he would probably do a better job of it. Nevertheless, I have taken a few tips from him and read through many of the past presidential addresses.

In looking through them, I found a recurring suggestion that parapsychology can both gain something and give something to other fields of enquiry through its research activities. The fields highlighted to benefit from this cross-fertilisation are usually physics, biology, and of course, psychology. I would like to echo that sentiment but broaden the usual list and assert, or in some cases reassert, our valued interaction with other fields and branches of investigation such as anthropology, archaeology, ethnobotany, phytochemistry, neurobiology, psychopharmacology, and the closer branch of transpersonal psychology, along with its emerging ecological neighbour, ecopsychology.

One particular point of contact where each of these disciplines or subdisciplines connects with our own is in the study of consciousness and its altered states, the specific point of interaction being with the "re-emerging" area of psychedelic research. The relationship to parapsychology of this relatively uncharted region of investigation has been my main academic interest for several years and, if you will allow me to take you on a short journey down the metaphoric rabbit hole, I hope to show you why, like Alice, I grow forever curiouser and curiouser!

Some ancient origins of psi, as we all know, can be traced back in the historical record in one direction to the oracles of Delphi in ancient Greece. The seeresses would sit atop a stool and prophesise in delirious altered states, which some researchers have identified as being caused by psychoactive hydrocarbon gases issuing forth from the rock fissure (see, e.g., Devereux, 2008). Another theory holds that the psychedelic plant henbane (*Hyoscyamus niger*) was used in the temple, because the plant was once called "pythonian" by the ancient Greeks in honour of Python: the visionary serpent goddess venerated by the seeresses at the temple, who were themselves called the pythia (e.g., see Rudgley, 1998). That was until

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the mythical Apollo slew the goddess and took her place, after which time henbane became sacred to Apollo as well (Hocking, 1947).

Spreading the net wider and further back, into prehistory even, we find remnants of shamanism going back millennia in all directions across the globe—though we cannot be certain that the magical practices we find in the historical and anthropological record mimic what our ancestors in prehistory did, but they certainly give us clues. What we do know of shamanism in more recent times is that practitioners of this art utilise techniques for altering consciousness apparently conducive to psychic diagnosis, clairvoyance, telepathy, precognition and spirit communication, which they do in the name of their community. The techniques they have used for entering altered states can be crudely summarised by the five Ds (though there are more techniques); drumming, dancing, dreaming, diet and drugs. It is with the last category, drugs, that I found reports of the intentional use of psychedelic plants for psychic experiences across all five continents, from the use of nicotine-rich pituri (*Duboisia hopwoodii*) by indigenous Australians (Australian Institute of Parapsychological Research, 2004) and datura (*Datura metel*) on the Indian subcontinent (Schultes & Hofmann, 1992), to the use of iboga (*Tabernanthe iboga*) in central Africa (Pinchbeck, 2002), Syrian rue (*Peganum harmala*) in north Africa and the Middle East (Rudgley, 1998), mandrake (*Mandragora officinarum*) in Europe (Müller-Ebeling, Rätsch, & Storl, 2003), and fly-agaric (*Amanita muscaria*) mushrooms in Siberia (Rudgley, 1998) and north America (Wasson, 1979). And then we have a whole medicine cabinet full of different "psi-chedelic" plants and fungi in Mexico alone, ranging from the use of peyote cacti (*Lophophora Williamsii*) by the Huichol Indians in the North (Slotkin, 1956), to teonanacatl (mushrooms of the *Psilocybe* genus) and ska pastora (*Salvia divinorum*) use by the Mazatecs in the South (Soutar, 2001; Wasson, 1962)—not to mention South America, where we find an enormous pharmacopeia of natural plant psychedelics that have been used traditionally for psychic purposes for millennia.

For instance, we heard earlier today about the Amazonian jungle decoction, ayahuasca (often a mixture of *Banisteriopsis caapi* and *Psychotria viridis*), which is used by some healers to diagnose illness by apparently enabling them to see inside the body of their patients in a manner like X-ray vision (Dobkin de Rios & Rumrrill, 2008). About a hundred years ago, early researchers investigating the alkaloids contained within the brew even named one of them "telepathine" (harmine) because of the apparently psychic experiences people typically had when taking it (Beyer, 2009).

Strictly speaking, of course, it would be a misnomer to call these substances "drugs" in the medical sense because their context of use does not fit well within the medical model. Imagine going to your doctor to find out what is wrong with you and instead of her prescribing you drugs for some physically defined illness she suspects you have, the doctor pops open the pills and takes them herself. She then diagnoses your illness by staring

into your organs without the aid of any mechanical devices and treats you directly by singing and blowing tobacco smoke over your head. For this reason, these substances have a number of different names depending upon which intellectual territory they occupy for those describing them.

For law enforcement agencies they are narcotics or drugs; for medics and traditional scientists they are hallucinogens, because they cause hallucinations—a term which conveniently obscures more than it explains—for therapists and those researching the potential benefits of these substances, they use the more neutral "psychedelic," simply meaning "mind manifesting" (Osmond, 1961). Finally, for those viewing their use through a spiritual lens, they are entheogens, meaning "making the divine within" (Ruck, Bigwood, Staples, Wasson, & Ott, 1979), indicating their capacity to induce mystical experiences and their propensity to be used as a sacramental. This sort of use can be found in shamanism and in the few organised religious movements that exist that use such plants, such as the Native American Church in the U.S. and the Santo Daime in Brazil.

Perhaps more accurately, Stan Krippner (2006) terms them "potential entheogens," for they do not automatically induce mystical or spiritual experiences, but may do so for some people when both the "set" and the "setting" are conducive to it, that is, when the person is in the right frame of mind and the right environment, as in the recent experiments with psilocybin and mystical experience at Johns Hopkins University (Griffiths, Richards, McCann, & Jesse, 2006). The rogue psychologist Timothy Leary's one unequivocally useful contribution to the study of psychedelics was the notion that set, setting *and* substance are all important determinants in the psychological outcome of a psychedelic trip (Leary, Litwin, & Metzner, 1963). But the "substance" could in fact be any state-altering technique, be that LSD, holotropic breathwork or the ganzfeld. And these same principles of set, setting, and substance can fruitfully be applied to a shamanic journey or a psi experiment employing altered states.

In journeying into these shamanic realms of other cultures, it's clear that a richer connection needs to be forged between our discipline and that of anthropology. Having recently conducted a review of the overlap between these two fields, I found that there still remained a clear divide between what anthropologists and parapsychologists did in their research of the paranormal in other cultures (Luke, 2010a).

Anthropologists, particularly further back in the past, tended not to consider the ontological basis of the apparently paranormal and so cared little for proving or disproving the validity of the phenomena they observed or, more often, the phenomena they were informed about. Commonly, until the formation of the *Society for the Anthropology of Consciousness* and its earlier incarnations in the 1970s, virtually all anthropologists were of the public opinion that the paranormal was merely delusional "primitive" thinking and that the only approach to the subject matter was to treat it merely as an irrational belief.

Fortunately, following the revolution started by the anthropologist Joseph Long at the 1974 meeting of the *American Anthropological Association* (Long, 1977), researchers in this field began taking a more open-minded approach to the study of magic and the paranormal in other cultures, although very few actually conducted controlled experiments. Some did, of course, notably Patric Giesler (1985) and Michael Winkelman (1979, 1981) in the late 1970s and early 1980s. However, this trend did not advance far despite the continuing growth of the anthropology of consciousness and, even now, very few anthropologists who study paranormal phenomena and transpersonal experiences are concerned with their ontology.

On the flip side, in the past we had parapsychologists who conducted cross-cultural research into the paranormal, but who generally attempted to do field psi experiments without applying any of the cultural insights that are only gained from years of ethnographic study and immersion in a different culture. I could give numerous examples from the literature, such as Robin Taylor (2000) honestly admitting his naïve assumption that rural Fijians would understand the principle of random number generators—but my own experience probably suffices. In attempting to persuade an Ecuadorian shaman that I had just met to let me conduct a computerised precognition experiment during his ceremony, I was promptly given a clear but indirect answer. He pointed me in the four directions and blew a large conch shell up my backside. Miles from civilization, this was the realm of Nature and there was to be no use of computers during his ceremonies, and that was that.

Back in the 1980s, Patric Giesler was well aware of this methodological disparity between the two fields and proposed a multimethod approach and a system of study he called "psi-in-process" (Giesler, 1984). The multiple methods involved using ethnography to inform experimental design, and the psi-in-process approach utilised naturally occurring variables so that no artificial factors became forced across the cultural divide. In this manner, Giesler began with a specific experimental design but gradually adapted it in the process of learning more about the culture, so that in the end his experiment resembled, in as many ways as possible, a client's consultation with a shaman to obtain knowledge about the location of a lost object (Giesler, 1985).

Very little "anthropological parapsychology," as Giesler (1984) called it, is actually conducted these days, though I would say that one of the few such attempts to adopt the in-depth Gieslerian method is that of Serena Roney-Dougal and her immersive approach to studying yogis and Tibetan Buddhist meditators (e.g., Roney-Dougal & Solfvin, 2006). One of the drawbacks of Giesler's enthographically informed experimental approach, however, is that it requires a long-term commitment to live among the people you study, often for several years. Roney-Dougal's extensive work is commendable in this regard in that she spent the best part of 6 years living in ashrams and monasteries in India conducting her psi research.

The psi-in-process approach can be usefully applied to our own indigenous research too, by looking for everyday occurrences of psi. The biologist Rupert Sheldrake has in recent years picked up this baton and has run far with it, with research into ordinary, everyday psi experiences like the sense of being stared at, and telephone, text message, and even e-mail telepathy (e.g., Sheldrake & Smart, 2003).

But the kinds of everyday psi experiences we have here in Europe often look rather pale compared to those bright and colourful ones occurring under the influence of psychedelics. To give an example, one year Stan Krippner was good enough to bring along the anthropologist Jeremy Narby as the PA after-dinner speaker, and he was able to give us some insight into his astonishing research with ayahuasca. Narby (1998) had been impressed with the inordinate number of times that people under the influence of ayahausca said that they saw two intertwined snakes, and he took this as a symbolic interpretation of seeing one's DNA, which some people do indeed claim they can do on ayahuasca. Now, unlike most anthropologists, certainly those of the past, Narby didn't just leave his speculation there but instead arranged to take three molecular biologists out to the Amazon jungle for their first trip there, and indeed their first ayahuasca trip too.

All three of the biologists beheld visions while on the psychedelic brew which helped them gain some insight into their research and which, ultimately, changed their worldview. Narby (2000, p. 302) writes: "The American biologist, who normally worked on deciphering the human genome, said she saw a chromosome from the perspective of a protein flying above a long strand of DNA."

Such phenomena also has its counterparts outside of anthropology. The biochemist Kary Mullis, who received the Nobel Prize for inventing the polymerase chain reaction (PCR), thereby significantly advancing DNA research, said that taking LSD had been invaluable to his discovery because it helped him to visualise sitting on a DNA molecule and watching the polymerase go by (Mullis, 1998). It has also recently been announced, amid some controversy (for this story may well be apocryphal), that the geneticist Francis Crick was under the influence of LSD when he had a vision of the double helix structure of DNA in 1953 (Rees, 2004), a discovery for which he was also jointly awarded the Nobel Prize.

Clearly the psychedelic-DNA evidence isn't conclusive, however, as it teeters on the divide between the paranormal and the power of the imagination stimulated by psychedelics. But, had Narby rejected the accounts of the shamans out of hand, as his academic background had trained him to do, he would never have attempted to even verify the shamans' claims, let alone defend them. As an aside, one case that would tend to support these scientists' visionary experiences of DNA is August Kekulé's (1890) experience while in a hypnogogic reverie, where he envisioned the undiscovered ring shape of the benzene molecule as a snake eating its own tail.

However, we suspect that there were no drugs involved this time because this was back in 1862, when virtually the only psychedelic substance available to scientists was nitrous oxide, of which William James made good use, of course. James came up with a lot of good stuff, and is to be respected for his psychical research and philosophy, but his experiences with nitrous oxide were unable to produce more benzene rings, but rather just a few circular attempts at bringing back the ineffable meaning of life and the universe—Rumsfeldian phrases like: "There are no differences but differences of degree between different degrees of difference and no difference" (James, 1882, p. 202), which James considered to be his most coherent and articulate sentence under the influence.

James aside, Kekulé wasn't the only one to make chemical discoveries in a reverie. The Swiss chemist Albert Hofmann had what he called "a peculiar presentiment" (Hofmann, 1983) and broke his strict laboratory protocol by going back to investigate an apparently medically ineffective chemical he had created 5 years earlier. The chemical in question, LSD-25, was just one of a number of ergot-derived compounds that Hofmann had created over the years. In 1943 he resynthesised the dormant chemical because, as he later confessed, he had heard it calling to him (Luke, 2006b), and upon accidentally ingesting a small amount, Albert found himself having the first-ever LSD trip, during which he also had the first ever LSD-induced out-of-body experience. I can now report that many, many people have had one since.

Incidentally, in an article published in the conservative English broadsheet newspaper the *Daily Telegraph* (2007) a few years ago, Albert Hofmann was voted the greatest living genius according to a random e-mail survey of 4,000 British people. And I think the profound and ostensibly paranormal effects of LSD may be why.

It's here at the dawning of the field of psychedelic research that we find that strong (one could say "covalent") bonds were forming with the study of parapsychology (Luke, 2006a). By 1950, just before LSD had found its way out of the Swiss laboratories, a medical doctor at Guys Hospital in London by the name of John Smythies had begun experimenting with mescaline (Smythies, 1987). Although it had been isolated from peyote in 1886, mescaline had remained under the radar for all but a handful of psychonautically curious scientists. One of the few accounts of its use until that time was reported in the *La Revue Métapsychique* here in Paris by the French researcher Rouhier (1925), who gave an extract of peyote to six participants, one of whom developed fairly compelling ESP for a brief period and was able to identify several objects in a nearby room.

In 1950, Smythies—who was a member of the *Society for Psychical Research* even then, and he still is now I believe—similarly conducted a clairvoyance experiment with moderate success (Smythies, 1987). About this time Smythies also gave mescaline to his medical colleague at Guys, Humphry Osmond, and the pair of them headed off to Saskatchewan, where

they could conduct their research more easily. By 1952, after some further experimentation, Osmond and Smythies published an article in the *Hibbert Journal* proposing that a new theory of mind was needed that could account for the extraordinary experiences that occur with mescaline and what they considered to be the scientifically proven fact of ESP. The English novelist Aldous Huxley read the article and requested that Osmond should visit Huxley in the United States and give him mescaline (see Stevens, 1988). Osmond, wishing to oblige, did just that, and in the wake of Huxley's now classic mescaline experience, the two men corresponded concerning which name they should give such substances, and settled on Osmond's term "psychedelic" (Osmond, 1961).

Leading from this experience, Huxley also catalysed the popularisation of psychedelics with the publication of *The Doors of Perception* in 1954. As well as describing his experiences of mescaline in this book, he also put forward a very simple neurochemical model of ESP, by suggesting that the French philosopher Henri Bergson was right to propose that the brain's primary function was to filter out all the excess sensory data that we do not attend to, data which would otherwise overwhelm the conscious mind with a mass of information—information, normally irrelevant for the organism's survival. Huxley (1954) also added to Bergson's notion by suggesting that substances such as mescaline serve to override the brain's "reducing valve" that inhibits this sensory data, thereby allowing the human being access to the entire information available in the universe, perhaps even forwards and backwards in time. Huxley thereby suggested that psychedelics could induce psi, and to illustrate this point he took the title of his book from a quote by the English mystic, William Blake—as also quoted by Russell Targ earlier—"If the doors of perception were cleansed, everything would appear to man as it is, infinite."

In 1953, just prior to the publication of Huxley's book, another landmark event occurred in psychedelic history. The American banker and amateur mycologist Gordon Wasson was fresh from his first trip to Mexico, where he had discovered both an active mushroom cult and the identity of *Psilocybe mexicana* as the sacramental. The Mazatec shaman Don Aurelio held a mushroom ceremony for Wasson and told him two important facts about his son in the U.S. that neither of them could otherwise have known—both of which were true, although one of which was still yet to happen, and later did so, thereby apparently demonstrating Don Aurelio's accurate clairvoyance *and* precognition under the influence of psilocybin (Wasson & Wasson, 1957).

A few years later, in 1961, after giving a lecture to the *Society for Psychical Research* in London, Arthur Koestler was advised to go and see both Timothy Leary at Harvard and J. B. Rhine at Duke, which he promptly did (Black, 2001). A year earlier, Leary had begun experimenting with psilocybin, one of the active principles in the mushrooms discovered by Wasson in Mexico, and with his colleague Richard Alpert, now known as

Ram Dass, they flew down to Duke in Alpert's private plane with Koestler on board and a bottle full of psilocybin. No fruitful ESP research came out of that visit, partially due to uncontrollable laughter during an attempted experiment I am told (Steve Abrams, personal communication, 14th June, 2006). Nevertheless, while Koestler had a bad trip and "lived through WWIII," J. B. Rhine wrote to Leary that his own experience had been "extremely illuminating." Nevertheless, Leary's "tune in, turn on, and drop out" antics soon alienated Rhine and other scientists from getting involved in research with him, although the two men maintained an ongoing correspondence.

The sixties continued, and a number of experimental psi research programmes utilising psychedelics popped up over the years, such as those by Karl Osis (1961), Walter Pahnke (1971), Ernesto Servadio (Cavanna & Servadio, 1964), Robert Masters and Jean Housten (Masters & Housten, 1966). Nevertheless, with the growing tide of the hippie counter-culture, the widespread public use of psychedelics, and the ensuing moral panic, psychedelics were condemned as illegal in the late 1960s, and scientific research giving such substances to human participants virtually ground to a halt the world over. Up until the turn of the millennium, when Dick Bierman conducted some interesting ganzfeld studies with cannabis and psilocybin—in Amsterdam of course—there were only 17 separately published reports of "psi-chedelic" experiments (for a review see Luke, 2008).

Apart from Bierman's research, nearly all of them lacked adequate controls and so are far from conclusive, or even evidential. Furthermore, most of those studies seemingly used participants who were inexperienced with psychedelics, and who often succumbed to the mystical rapture of their first trip, or else frequently complained that the repeated ESP card-guessing tasks were too boring whilst tripping (Luke, 2008). Nevertheless, those experiments using "experienced" participants and utilising better methodology generally gave better results, and on the whole, the findings of that research were at least promising and warrant further study. This assertion tends to be supported too when we look in the literature of personal reports of such "pharma-psi."

Such stories abound in the anthropological, ethnobotanical, and historical literature, and are also extremely prevalent among the reports of the many psychedelic psychotherapists operating during the 1950s and 60s. A review of the surveys conducted likewise consistently shows a positive relationship between the report of having had a paranormal experience and the reported use of psychedelics, with heavier users having more experiences. Overall, between 18% and a staggering 83% of those reporting the use of cannabis and/or other psychedelics also reported ESP experiences occurring *whilst actually under the influence* (Luke, 2008).

Unfortunately, since prohibition in the 1960s, survey research has been all that most researchers could do to investigate this area. All human research effectively ended in 1966 when LSD was criminalized and psychedelics suddenly became a dirty word in scientific and medical

research. It's at this point that parapsychology and psychedelic research parted company. Parapsychologists, long suffering the brunt of zealous critics anyway, could no longer risk tarnishing their brush even more by associating with the likes of Leary. The few tenacious psychedelic researchers who kept the torch burning in their field also felt that what little credibility they had left could not be risked further by "dabbling in psi." Both fields of research suddenly became too fringe for each other.

This situation remained throughout much of the following decades and it wasn't until the mid-1990s when a few brave researchers, such as the medical doctor Rick Strassman (2001), risked their careers to ask unaskable questions. Defying taboo, they persisted with ethics committees and government agencies for several years until they were given permission to once again conduct psychedelic research projects with humans. Initially, this occurred in only in a few very isolated pockets, but by the turn of the millennium there were a good number of psychedelic research projects that were starting to hatch, almost entirely for therapeutic purposes.

This feat was helped in part by the formation of organisations like the Multidisciplinary Association for Psychedelic Studies (acronym MAPS), based in the U.S., and the Beckley Foundation, based in Oxford in the UK. These organisations fund-raised millions of euros from sympathetic supporters and philanthropists and channelled it into conducting respectable ethically approved institutional research with substances such as psilocybin, MDMA, cannabis, and, for the first time in nearly 40 years, a project initiated by the Beckley Foundation is investigating the beneficial effects of LSD on creativity and brain activity in humans.

The current situation with human psychedelic research is such that it is experiencing the start of a complete renaissance, and there are currently projects running at several prestigious universities, including Harvard and Johns Hopkins, with a constant expansion of new institutions starting research (for a review, see Winkelman & Roberts, 2007). There's even a team now at Yale and research planned at Oxford. This is something truly remarkable! Substances that were demonised and prohibited for study for several decades are beginning to make a return to academia, and not by changing their name or their effects. Although some researchers urged adopting the name entheogens to gain respectability, the vanguard of advocates continued to use the term psychedelic, even though for decades it had been loaded with negative baggage. I perceive there were two major factors that helped bring about this positive change. The first was the passage of time and the gradual demise of the media hysteria generated in the sixties. The second was the persistent affirmation by serious scientists, academics, and therapists who worked with these substances directly that they were essentially safe and had many potential benefits to be gained if they were used in the right way.

The salient point here is that "at the length, truth will out!" Many people who had come into contact with psychedelics recognised their

beneficial aspects and were willing to risk their careers or donate money to see them researched for therapeutic purposes despite the lack of government approval or industry funding and the active resistance to them within the establishment. Clearly there are parallels with our own field and a valuable lesson can be learned here for parapsychology: We need not hide our interests by changing the names of what we do, or what we research, but rather "speak truth to power," and continue to persevere in spite of the opposition, and maintain our integrity as seekers of the truth—whatever and wherever that may be.

News in just this week is the results of a study into the benefits of MDMA for the treatment of long term PTSD (Mithoefer, Wagner, Mithoefer, Jerome, & Doblin, 2010). The findings, published in the prestigious *Journal of Psychopharmacology*, are highly positive, but this is the first paper to report the beneficial effects of MDMA since it was criminalized exactly 25 years ago. In that time there have been nearly 3,500 studies that have been published about MDMA, but none of which investigated the beneficial effects. So clearly, we are beginning to see the start of a renaissance, I believe, in the study of psychedelics.

As an out-and-out optimist I also think we are starting to see the beginnings of a renaissance in parapsychology too (Luke, 2010b). Certainly in the UK we have more university departments researching and teaching the psychology and sociology of the paranormal than there have ever been, the number of which has pretty much doubled in the last 10 years so that at last count there were 16 separate universities at it (Carr, 2008)! Parapsychology, admittedly under the title of anomalistic psychology, has also made it onto the preuniversity psychology syllabus in the UK too, and is now available as an option to tens of thousands of 16–18 year-old psychology students each year. I can only see that these trends are set to continue, not just in the UK either, but here in France, in the U.S., and elsewhere across the globe.

So if we are seeing the start of a new, more open-minded approach to science, then is there room in that equation for a return to a parapsychological investigation of psychedelics, shamanism, and other anthropological subject matter? I think there is. When the Multidisciplinary Association for Psychedelic Studies (MAPS) was started up by Rick Doblin 24 years ago in response to the criminalisation of MDMA, the organisation put in its mission statement that it believed that psychedelics could be beneficial to psychic research, among other things, and MAPS, true to its objectives, has since funded such research (Luke, 2004, 2005). This brings affairs full circle from the time in the early 1960s when the Parapsychology Foundation was funding Leary's research at Harvard into the use of psilocybin to rehabilitate prisoners. I believe our banquet speaker tomorrow, Paul Devereux, has something equally gratifying to say concerning the Beckley Foundation. Such reciprocity is timely, and I think it indicates that now is the time once again to begin asking questions about the relationship between psychedelic

substances and parapsychological phenomena as part of a broader research approach encompassing neurobiology, psychopharmacology, phytochemistry, ethnobotany, anthropology, archaeology, and eco- and transpersonal psychology.

I think the time for this is right and that we can cautiously cast aside old fears. I was recently asked to speak at a conference on psychedelics, which will be the first in decades to be held in a university in the Netherlands. The main organiser, however, was concerned that I would discuss parapsychology because it was too taboo a topic to be bringing up at a conference where psychedelic researchers were on show in the academic sphere of this country for the first time. I wrote back pointing out the long history associating the two areas of research and indicating that any conference wishing to bring about an open and honest approach to scientific enquiry should not start by hiding anything, and so the organiser changed his mind.

So what can be learned from such an enterprise, investigating what I like to mischievously call "para-psychopharmacology"? Well, perhaps we can learn something about the neurochemistry underlying parapsychological processes (Luke & Friedman, 2010), given that people generally report far more of them under the influence of psychedelics than when not (Luke, 2008). Any discoveries forthcoming about the neurochemistry of these processes equally applies whether these experiences are shown to be genuine or not, because we can learn something about the neurobiology of paranormal *experiences* at the very least. Nevertheless, the state of neurochemistry is a complex affair, and a sophisticated approach is needed to unravel the intricacies of human-chemical interaction. This includes an investigation of situation/person variables, such as in Nicola Holt and Chris Roe's recent work looking into person lability and task lability (e.g., Holt & Roe, 2006).

There are also a wealth of different psychedelic substances, which have been increasing in number since 1900 by a factor of 10 every 50 years according to expert psychedelic chemist Alexander Shulgin (2004), meaning that there will likely be a jump from 200 to 2,000 known psychedelic substances between the years 2000 and 2050. It must also be considered that there are a wealth of different exceptional experiences that people may have whilst on these substances; in this regard there is a lot to be learned from the lineage of shamans who have been using these substances for millennia and who are well practiced in navigating the altered states they produce. From direct research and from the literature, it seems that most every type of transpersonal experience can be had under the influence of psychedelics (e.g., Grof, 2001; Luke & Kittenis, 2005) and these may teach us something about the phenomena that are ordinarily studied in psychical research. For instance, the apparent contact with discarnate entities, particularly under the influence of one of the body's naturally occurring psychedelics, DMT, can inform studies into mediumship, apparitions, sleep paralysis, and alien abduction experiences (Luke, in press). However, the multitude of these

complex experiences means that a taxonomic approach is also required so that we can ultimately determine which substances, under which environmental conditions and for which people, best activate a particular sort of experience; that is, what experiences arise out of a combination of set, setting, and substance?

That is a lot of factors and a lot of questions to ask, so you see that this is a completely nascent field of study, and we are wise to admit that currently we know virtually nothing. One insight we might begin with is that Theophile de Gautier, the founder of the 19th century Le Club des Hachichins in Paris, not far from here, once had an experience outside of time in which 15 minutes passed by in what felt like just a couple of hundred years (Devereux, 2008). Perhaps an experience like that can begin to help us unravel some of the paradoxes of time that occur with precognition. This seems as good a starting point as any, and so, I thank you for your patience during the eons of this talk and hope that this short journey down the rabbit hole did not feel like a few centuries.

"Down, down, down," said Alice. "Would the fall *never* come to an end!"

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