Return Trip:
The Re-Enchantment of Psychedelics

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Abstract

The return of clinical psychedelic research offers the opportunity to re-assess the narratives that surround and shape psychoactive substances. Today those narratives increasingly try to reduce drug-induced states of consciousness to brain activity, with the paradox that any attempt at a totalizing neurological account of consciousness must account for the full range of psychedelic phenomena. A situated understanding of this process suggests that reductive explanations are unavoidably woven into holistic “meshworks” of social, psychological, spiritual, and possibly cosmic import.

1. Introduction

We are what we eat, but what we eat is also a reflection of who (we think) we are. In other words, the stories we tell about the things we take into our bodies reflect the stories we tell about our more mysterious selves. A whale steak nostalgically munched in Japan would strike many nature-loving Americans as a moral horror, while the continued appeal of homeopathic pills lies as much with the holistic image of the bodymind they suggest as with their measurable efficacy.

This mirroring effect between substance and self is particularly powerful when the things in question are psychoactive drugs – those natural and synthetic materials that directly and sometimes dramatically affect the lived texture of human consciousness. So what do you think: is alcohol a social lubricant, a temptation, a poison, a medium of culture, a tool of self-medication, or the blood of Christ? All of these views are “social stories” that derive their consistency from the shifting locations wherein human beings find themselves. We reimagine what we ingest from where we stand, and where we stand is a moving target – or better said, a dance.

LSD is perhaps the best example of the kaleidoscopic range of narratives stirred up by a psychoactive molecule. After all, LSD entered the world as a tabula rasa, an essentially meaningless white powder cooked up by a Swiss chemist named Albert Hoffmann barely seventy-five years ago (Hoffmann 2005). Since then, LSD has worn a myriad of hats: a mind control agent, an aid to psychotherapy, a simulator of psychosis, a mystical
engine, an aphrodisiac, a cognitive amplifier, a scrambler of chromosomes, a productivity enhancer, a demonic scourge, a revolutionary force, a good time, a god. It has been classified as a “psycho-mimetic”, a “psychedelic” and an “entheogen” – and marketed under a panoply of names, including the commercial brand Delysid and famous underground monikers like Orange Sunshine, Windowpane, and Purple Microdot. It has been distributed in (and as) vials of liquid, crystal powder, sugar cubes, gelatin caps, and blotter paper. This swirl of costumes, of names and stories and packages, has not only influenced the meaning of LSD but also, to some degree, its phenomenology.

When the legendary chemist Augustus Owsley Stanley III was pressing his famously pure LSD into pills in the 1960s, he dyed the batches different colors. The different colors led to various brand names – Purple Haze, Blue Cheer – which in turn were linked, experientially, to different sorts of effects, even though the quality and amount of acid was effectively the same (Lee and Schlain 1985). Something similar is happening to cannabis today, at least in increasingly deregulated America, whose red-hot market for “medical” marijuana products has led to a complex and over-hyped lore of targeted effects.

Of course, some of the most powerful stories about psychoactive drugs are told by the government, even if those stories are frequently garbled and contradictory. In the United States, for example, the pleasant Polynesian root *kava kava* is available on your herbal shelves, while the pleasant Yemeni stimulant *kha* is controlled; in the UK, the reverse is true. Heavier and more demonizing stories have been told about psychedelics like LSD, of course, which the US government scheduled as a highly controlled substance in 1967, a year after it became illegal in California. This regulatory act – a new story, if you will – thrust the compound even deeper into the underground, where its meanings proliferated along a myriad of spiritual, artistic, musical, sexual, and social vectors that continue to morph their way through society and culture to this day. However, by definitively transforming LSD into an “illegal drug”, the state’s story also brought to a halt a wide range of legitimate, board-certified psychological and pharmacological studies that, in their time, might have reframed Hoffmann’s meaningless molecule in narratives not so heavily freighted with the baggage of countercultural values.

2. The Resurgence of Psychedelic Research

Today, the meaning of LSD and other psychedelics is once again up for grabs. And the central story-tellers are scientists themselves, who have been recently empowered to carry on the sort of controlled, laboratory research that was chased underground almost fifty years ago. So even as
the official war on drugs maintains its bankrupt holding pattern, and the
digitally re-mastered offspring of the freaks and hippies keep the coun-
terculture alive at electronic music festivals and Burning Man, a growing
number of psychiatrists, neuroscientists, research chemists, and psychol-
ogists (and their often private funders) have instigated an extraordinary
resurgence of above-board research into the physiological and psychologi-
cal effects of substances like LSD, psilocybin, dimethyltriptamine (DMT),
ayahuasca, and ketamine.

The stories emerging from these studies are story enough, but this
resurgence of scientific interest has the additional feature of throwing our
changing notions of the self into sharp relief. By tracking the emerging
contests over the meaning of “psychedelics” we can glimpse tectonic shifts
in the meaning of “we” – particularly the question of whether there is any
room for sacred forces in the increasingly dominant neurological portrait
of the human being.

For a resoundingly negative answer to this question, we might con-
sider some recently published research – and the small flurry of publicity
it sparked – concerning the dissociative substance ketamine, a synthetic
compound once widely used as an anaesthetic. On the street, “Vitamin
K” or “Special K” is known as a club drug whose insufflation dependably
makes things go all goofy-tunes. And some inner-space explorers have,
over many decades, developed a taste for the magnificently uncanny and
cosmic out-of-body experiences occasioned by larger, frequently injected
doses.

Even here, though, ketamine underscores the complex interactions of
social narratives and “pure experience”. Though ketamine is not terribly
different in either structure or effects from the notoriously violent street
drug phencyclidine (or PCP) – from which it was originally derived – the
cultural profiles of the two substances are worlds apart – a distance that
some observers suggest has more to do with class and social context than
with strict psychopharmacology (Jansen 2001).

And now there is a new competing narrative. Studies recently carried
out at Yale have confirmed earlier reports that ketamine offers remarkable,
nearly instantaneous relief for people who suffer from forms of major de-
pression impervious to other treatment methods. Interpreting depression
as a hardware problem largely caused by the loss of synaptic connections,
the researchers argue that ketamine works by encouraging sprightly neu-
ral growth in brain regions correlated with memory and mood (Duman
and Aghajanian 2012).

Journalistic reports also linked this research with the development of a
new vein of antidepressants, including Naurex’s GLYX-13, that have the
neuron fertilizing power of ketamine without the, as the company’s widely
cited press release describes them, “schizophrenia-like effects” (Naurex
2011). Rarely has the new neuro-reductionism been so naked in its repack-
aging of human experience. Nowhere in research or journalism does anyone suggest that heavily depressed people feel better because ketamine sends them on a first-person voyage through profound, sometimes ecstatic, and certainly mind-bending modes of transpersonal consciousness whose subjective power may itself boot the mind out of its most mirthless ruts.

By sweeping such sublimities under the rug of toxic “side effects”, the researchers and their partners in industry want to sidestep the remarkable paradox that psychedelic substances present to brain-based reductive research: psychedelics are material molecules that frequently occasion experiences that look and feel for all the world like the sort of mystical or religious raptures whose unfolding cognitive content calls into question strictly reductive materialism. In other words, researchers of powerful psychedelic effects must still, in some sense, squirm before God – or at least before experiential states that recall the ecstatic reports of traditional religious mystics, or of shamans making pacts with non-human entities, or of meditators seeing into the knitted web of self and world.

This “return of the religious repressed” is now part of the scientific literature as well. In a widely-reported study at Johns Hopkins University, Roland Griffiths showed that psilocybin, provided to spiritually-minded volunteers in a supportive institutional environment, reliably “occasioned experiences similar to spontaneously occurring mystical experiences” (Griffiths et al. 2006). Griffiths had designed a rigorous double-blind study, and his results not only influenced the future course of psychedelic research but also helped establish the terms that have marked renewed public discussions about the drug.

Even so, for some psychedelic insiders, Griffiths’ results occasioned a response of “No Shit Sherlock”. In essence, the Johns Hopkins team had simply restaged one of the most famous psychedelic studies of the 1960s: the Good Friday Experiment. Spearheaded by a Harvard theology graduate student named Walter Pahnke, with support from Timothy Leary, the Good Friday Experiment also showed that, over and against a placebo, psilocybin gave the bulk of graduate degree divinity students something like a powerful religious opening (Stevens 1987).

But how far does this something like get us? Though the follow-ups that Griffiths performed seemed to support the spiritually efficacious power of psychedelics over time (Griffiths et al. 2008, 2011), does his study really tell us anything about the sacred? After all, while Griffiths’ volunteers were unfamiliar with tripping, all of them already possessed a religious or spiritual worldview. It was Leary’s old message of “set and setting”: Drugs may simply reflect and amplify beliefs and patterns of meaning already woven into the user’s intentional “set” and environmental “setting”. The drug itself, in such a view, has no privileged access to sacred reality – rather, like a feedback loop, it simply catalyzes stories and
perceptions already “programmed” in the human mind or its surrounding cultural environment.

And even if psychedelic rapture and mystical experience “on the natch” are somehow the same (which seems unlikely), that still does not sidestep the reductive arguments offered by some neuroscientists. A rising tide of “neuro-theologians” are offering up ever more technically robust – if sometimes philosophically and culturally naive – accounts of religious experiences (see, for example, d’Aquili and Newberg 1999). For these scientists, anomalous experiences like waking visions, timelessness, and the sense of divine presence may be reducible to nothing more than the creative mislabeling of essentially meaningless brain events. Even if these accounts prove far too simplistic in the end, they do remind us that, once the brain is involved, then it seems clear that all experiences are mediated, with the “thing-in-itself” banished once again behind veils of translation and interpretation.

3. Poetic Facts

Perhaps there is another way of thinking about all this, however, and perhaps this other way embraces a widened sense of mediation rather than a privileged sense of mystical insight. Perhaps what we see with extraordinary psychedelic experience is the temporary establishment of a circuit whereby a variety of worlds link up and begin to resonate, such that neurons, cultural narratives, the lords of the forest, the serpent twists of DNA, and the make-believe of something like are inextricably woven together in a multidimensional matrix that reverberates in a rainbow display as sacred as it is profane.

If something like this is the case, then even hardcore neuroscientists will find themselves on a potentially paradoxical flight path. As neuroscience’s imperialistic desire to dominate and recode other fields of knowledge and experience grows, scientists must confront, in a robust way, the anomalous edges of human experience, those liminal realms where mystical, paranormal, synchronistic and visionary phenomena hold sway. Even while this encounter will continue to occasion reductive explanations, its exotic visibility will nonetheless cast a brighter, more public light on the phenomena themselves.

I suspect we will see more and more thinking individuals cross over from third-person descriptions to first-person encounters, especially if the therapeutic and cognitively enhancing character of these experiences holds true over time. In other words, despite and because of our neuroscientific bias, anomalous religious experiences are on track to become ever more recognized dimensions of human experience. They are rightfully taking their place as “poetic facts”, as experiential claims that the living of life
itself makes on us, and whose very persistence constrains the totalizing aspirations of purely meat-based science.

One sign of this development is the fascinating scientific and philosophical discourse surrounding meditation and contemplative practices, some of which was sparked by the Dalai Lama’s sustained conversations with neuroscientists in recent decades. While some intriguing brain-based explanations for traditional Buddhist claims have been offered up, these explanations are ultimately less important than the zone opened up between neuroscience and traditional spiritual philosophy and practice. Meetings, conferences, texts, trials – these are the spaces where poetic facts collide with scientific ones. A similarly robust space of possibility and dialogue may lie ahead for psychedelics.

This is what makes some recent ayahuasca research by neuroscientists working in South America so exciting. Though a powerful hallucinogen, ayahuasca is not illegal in Brazil, where the tea is used by urban professionals as well as traditional and Mestizo populations, and has been integrated to some degree into national identity. As such, the state has also begun sponsoring a number of ayahuasca studies. Recently a team in the city of Natal used functional magnetic resonance imaging to track how the brains of experienced ayahuasca drinkers behaved during the extraordinary visionary displays occasioned by the brew. By asking participants to imagine internal scenes, and correlating the imaging data with visual tests and psychological measures, the team was able to trace the shifting dance between different brain regions associated with memory, projective imagination, vision, and intentional imagery, and to offer tentative explanations for the intense vividness of the visions (de Aruaja et al. 2011).

Though such findings can of course support explanations that banish the spirits from the forest and lock them into our neural circuitry, this sort of research can also be seen, from a more holistic perspective, as mapping the brain’s own potential reconfigurations as a transceiver of information flows – that is, as a reality machine that is as much like a radio set as a computer. While this “transmission” model of consciousness is certainly more speculative, neuroscience is still a long way off from closing the gap between its explanations and the felt flow of consciousness – indeed, according to some philosophers, this gap is simply woven into the nature of things. As such, neuroscience might be seen not so much as eviscerating traditional “folk” accounts as weaving them into more multi-faceted and open-ended meshworks where social, cultural, and even cosmic frameworks interlock with neural and biological ones.

4. One Suspects This Is What the Spirits Would Like

Though traditional numinous accounts may not survive the encounter with neuroscience intact, they are far more likely to be transformed by
that encounter than destroyed by it. The sacred, in other words, is not going to go away. One sign of this, appropriately, is the rise of ayahuasca culture outside of the Amazon, where the brew gets name-dropped by rock stars and has become a must-have in the margins of the yoga boom and the eco-New Age. It is remarkable that, despite this explosion of interest and the subsequent fraying of indigenous cultural use, the brew remains profoundly linked to religious forms and forces.

Whether guzzled in Europe or North America at the feet of touring Peruvians or white facilitators with varying degrees of “shamanic” costume, or whether sought at the source in the Amazon’s increasingly commercialized ayahuasca therapeutic industry, the brew remains for its Euro-American consumers an overwhelmingly sacred, ritualistic, and transformative occasion. Traditional elements – the drunken cup, the sitting circle, the darkness, the songs, the shared gastro-intestinal ordeal, the sharing the morning after – all resonate with first world desires for personal, social, and ecological healing that are, I suspect, more sober and even desperate today than during the more wayward and exploratory years of the psychedelic counterculture, when etho-botanicals like magic mushrooms and peyote were generally consumed in more informal situations.

The most active alkaloid in ayahuasca is DMT, the tryptamine whose study initiated the current wave of psychedelic research and also occasioned some of the more intriguing juxtapositions of religion and science within the recent literature. In the early 1990s, the psychiatrist Rick Strassman began doling out hundreds of injections of the powerful, short-acting tryptamine to seasoned volunteers at the University of New Mexico. Strassman’s study was designed to collect psychophysiological data, but his project was inextricably woven into broader religious and spiritual concerns on a number of fronts. Many of the volunteers experienced sometimes terrifying encounters with alien or divine beings, quasi-shamanic episodes that disturbed Strassman and many volunteers, and whose almost supernatural character contributed to his decision to discontinue the study in 1995.

Another feature of the weave was Strassman’s conclusion that, by maintaining an objective biomedical orientation rather than a more spiritually therapeutic “set and setting”, few positive results were accruing from these encounters over time. A practicing Zen Buddhist at the time, Strassman also confronted strong condemnation of his research from some in his community. Though some of this negativity grew out of the community’s own internal dynamics, it also reflected American Buddhism’s inability, as it establishes itself as a mainstream religious option, to acknowledge the powerful role that psychedelics have played in the founding (and continued flow) of the Western dharma.

After abandoning the study, Strassman published some of his findings in the usual journals (e.g., Strassman 1995). But he also decided to write
a mass-market book called *DMT: The Spirit Molecule*, which included many of the mind-blowing first-person accounts of his subjects along with a number of Strassman’s own more imaginative ruminations (Strassman 2001). For instance, Strassman speculated that DMT, traces of which are found endogenously, is produced in the pineal gland upon the onset of death, and thus might explain the phenomenon of near-death experiences. Beyond Strassman’s curious support for a long-mocked argument of Descartes, who located the soul in the pineal gland, the psychiatrist also invoked the crown chakra of Hindu Tantra while, noting that the pineal gland becomes visible after forty-nine days of fetal development – the same period of time that *The Tibetan Book of the Dead* claims is required for the outgoing soul-force to reincarnate.

The religious and spiritual concerns that underlie Strassman’s thinking – he is currently writing a book on prophecy in the Hebrew Bible – no doubt fueled the worldwide popularity of his book, which sold over 100,000 copies and was translated into twelve languages. Some of his readers in turn misread Strassman’s speculations as scientific proof, with the result that the notion that DMT is produced in the pineal gland has become a congealed “fact” in psychedelic folklore – a further example of the complicated ways that sacred desires and phenomenological perspectives are bound up with the always embedded context of scientific pharmacology.

The ongoing interplay between official psychedelic science and the vibrant mutation of experiential religion in the 21st century presents a challenge for everyone: for researchers, for drug designers, for shamans and neo-shamans, and for funding bodies like the Multidisciplinary Association for Psychedelic Studies (MAPS), who must craft a mainstream public face for what is sometimes a deeply peculiar, marginal, and infectious realm of poetic facts.

Seeking to get to the bottom of psychedelics, we must navigate between the Scylla of neural reductionism and the Charabdis of “woo woo”, the profane and the sacred, molecules and spirits. Perhaps the psychedelic researchers who most successfully navigate this narrow gate today are those studying the help the substances might provide to people suffering the challenges of life-threatening disease.

In Switzerland, Peter Gasser is using LSD to treat such mortal anxiety in a MAPS-sponsored study (Gasser 2007), while in the United States Charles Grob and Roland Griffiths (ongoing) have both studied psilocybin as an adjunct to psychotherapy with cancer patients (Grob et al. 2011). What is appealing in these studies, which so far have shown promising results, is not just the possibility of bringing some peace and insight to people facing a very tough time. On another level, these investigations also reflect the unique way that death and dying draws the holistic psychedelic meshwork of religion, science, and the self into meaningful focus.

Here again, we have a reverberation with the 1960s, when many people
first heard about mind-expanding chemicals through the trip manual *The Psychedelic Experience*. Written by Timothy Leary, Richard Alpert, and Ralph Metzner, the book mapped the dynamics of psychedelic rapture onto the visionary descriptions of dying, death, and afterlife travel (Leary *et al.* 1964) offered up in, once again, *The Tibetan Book of the Dead*. Whether you interpret Leary *et al.*’s text as a crude misappropriation or a savvy psycho-spiritual mash-up (I think it’s both), the book’s continued resonance reminds us that even if psychedelic experience is nothing more than a neural construction (and what, according to neuroscience, isn’t?), then it still reliably invokes the existential and ultimately religious questions brought up by the implacable conundrum – and almost certain ordeal – of our own necessary demise. Indeed, it is perhaps here that we most see their mettle.

Like many of the death-prep meditations practiced in Tibetan Buddhism and other initiatory traditions, psychedelics – provided, again, within an appropriate set and setting – may serve as flight simulators hurtling us through the shadow of death, test runs of the inevitable fear and phantasmagoria, as well as avenues towards acceptance and integral insight. Having died, even in hallucination, one can no longer quite live the same way. And here, at the very least, the warring parties of religion and secular reductionism may be able to hold a truce.

After all, materialists and New Agers, skeptics and shamans, are all united in facing the death of ourselves and our loved ones – a process that remains, even for the most committed skeptic, a mystery poised at the knife edge of meaning and the void. And mysterious ordeals sometimes require mysterious protocols. The gambit of psychedelic research is that third-person explanations will not exhaust the meaningfulness of wrestling with first-person experience; like our loving and like our dying, our trips are ultimately known, if anything is ultimately known at all, from the inside.

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References


