CHAPTER 1

THE REBIRTH OF RESEARCH WITH ENTHEOGENS: LESSONS FROM THE PAST AND HYPOTHESES FOR THE FUTURE[1]

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On the basis of my professional involvement in psychedelic research with human volunteers between 1963 and the present, including studies at the Johns Hopkins School of Medicine during the past decade, I focus on the noetic insights often reported by persons who experience mystical states of consciousness and their potential relevance in designing new treatment interventions. Consideration also is given here to possible nonmedical applications of transcendental experiences and the importance of incorporating knowledge obtained in past research into the design of new investigations.

THE EXPERIENTIAL PROFUNDITY OF MYSTICAL STATES OF CONSCIOUSNESS

In his book, *The Varieties of Religious Experience*, William James referred to the intuitive knowledge that often is intrinsic to mystical states of consciousness as *the noetic quality*, emphasizing that, "although so similar to states of feeling, mystical states seem to those who experience them to be also states of knowledge" (1902, p. 371). Abraham Maslow, not only the pioneering psychologist who drew our attention to the study of mental health, to peak experiences, self-actualization, and the further reaches of human nature, but also a noteworthy Jewish mystic who never took psychedelic drugs, similarly wrote, "The peak-experience is felt as a self-validating, self-justifying moment which carries its own intrinsic value with it. It is felt to be a highly valuable—even uniquely valuable experience, so great an experience sometimes that even to

attempt to justify it takes away from its dignity and worth . . . it justifies not only itself but even living itself" (1964, p. 62).

Many recognize the wisdom inherent in the verse from the *Tao tê Ching*, which reads, "Those who know do not speak; those who speak do not know." Forty-six years ago, finishing a research report of a personal psilocybin experience, I looked at what I had written and then wrote: "What is a 'transcendent dimension of being'? Such words on paper are little more than metaphysical poetry. Somehow I feel I could better communicate my experience by composing a symphony or by molding a piece of contemporary sculpture, had I the talents for either form of artistic expression. . . . Only my silence can retain its purity and genuineness" (Robertson, *pseud.* 1968, p. 91).

Yet, here I am writing, obviously about to try to use words to describe mystical states. I own some inner conflict about this and trust that you who read will allow me some poetic license. However, if mysticism is to emerge from silent monastic cells into the bright light of scientific discourse, I see no alternative. Scholars in the psychology of religious experience and neuroscientists alike who today explore the nature and relevance of mystical states need language to define as clearly as possible what is meant by "mystical consciousness" and how to determine when it has occurred and when it has not occurred. This is especially important in investigations of the contributions that psychedelic drugs (i.e., entheogens) may make to psychotherapeutic treatment, for it has become increasingly clear that it is not the administration of a drug, or a "drug effect," that positively correlates with significant attitudinal and behavioral changes, but rather the occurrence of discrete states of consciousness, most notably mystical consciousness, during the period of drug action (Griffiths, Richards, Johnson, McCann, & Jesse, 2008; Richards, Rhead, DiLeo, Yensen, and Kurland, 1977).

Mystical states of consciousness, which several scholars now define in accordance with the perennial philosophy (Huxley 1945) or the so-called universal core (Hood, 2006; Kelly, Kelly, Crabtree, Gauld, Grosso, & Greyson, 2007; Stace,1960), when expressed in written descriptions, generally provide evidence of six experiential categories: (a) unity, approached either internally with closed eyes or externally through sense perception, (b) transcendence of time and space, (c) intuitive knowledge (the *noetic quality*), (d) sacredness or awesomeness, (e) deeply felt positive mood—love, purity, peace, joy, and (f) ineffability and paradoxicality (Pahnke & Richards, 1966; Richards 2003). Paradoxicality refers to the collapse of Aristotelian logic and not only vocabulary, but the categorical structures of cognition in the attempt to express mystical consciousness in language. Not unlike physicists who describe energy as both wave and particle, reports include claims of having died, but never feeling more alive; of ultimate reality that is nonpersonal, yet personal;

eternal, yet including time; one, yet many; profoundly serious, yet playful; even as the void or nothingness that contains all reality.

For research purposes at Johns Hopkins, we consider a complete experience of mystical consciousness as a state of human awareness that, when expressed and content-analyzed or measured by psychometric instruments, can be found to include all six categories. One also could formulate a category of "incomplete mystical consciousness" that may not include the complete transcendence of the ego, or noteworthy noetic content.

Also, a distinction can be made between mystical and archetypal states. Archetypal experiences require an observing, participating ego, and often occur just before or just after the unity of complete mystical states. They tend to be impressive in their own right, entailing visions of gods and goddesses, the Christ, the Buddha, or the dancing Shiva, intricately beautiful inner architecture, precious gemstones and metals, visionary landscapes from different historical periods, and the phenomenon of inner light itself. This is the realm described by Carl Jung and Joseph Campbell where myth arises, not as something that is not true, but as a symbolic saga that portrays our spiritual journeys.

Also important are purely psychodynamic experiences without accompanying archetypal or mystical content, which typically entail regression to childhood traumas, emotional catharsis, and powerful feelings of resolution and rebirth. Clearly, these three domains of human consciousness—the mystical, the archetypal, and the personal-psychodynamic—have profound promise in psychological treatment and spiritual development. They stand in sharp contrast to mildly altered states of sensory change and intriguing, but generally meaningless imagery triggered by psychedelics in low dosage or in contexts lacking adequate safety to allow for focused intent and unconditional trust. Also, they stand in sharp contrast to states of confusion, panic, and paranoia that often occur when psychedelics are administered without adequate preparation or skilled guidance.

THE RELEVANCE OF MYSTICAL CONSCIOUSNESS

In considering why an experience of mystical consciousness may be especially facilitative of psychological and spiritual growth, let us now focus upon five of the most commonly reported noetic insights.

First is an intuitive recognition and confirmation that the spiritual dimension of life is valid—that in everyday life we really are "spiritual beings having human experiences." The individual person may label this reality any way he or she desires: as God, as the ground of being, the Christ consciousness, the source, the force, the void, the Tao, the Buddha fields, the dance of Shiva, the higher power, or even as "Nothingness," but typically there is an

unshakable conviction that consciousness includes infinitely more than our individual egos, that is, the everyday personalities identified with our proper names.

Second, this transpersonal reality reliably is experienced as being eternal and indestructible, perhaps including time, but beyond time and history. Persons trained in philosophy or quantum physics may have the verbal skills to articulate an experiential recognition that time, space, and substance really are relative, not absolute. To Christians, the familiar "Gloria Patri" suddenly may make sense: "As it was in the beginning, is now, and ever shall be; World without end."

Third, mystical consciousness often includes a conviction that, within this unitive world, all of us are interconnected and interrelated, that we are brothers and sisters in the world, irrespective of cultural or racial heritages, or the condition in which we discover ourselves. In Hinduism, this is called the "bejeweled net of Indra"; in Christianity, it was known as "the brotherhood of man," but now might well be called "the interrelatedness of humankind."

Fourth, persons who have experienced mystical consciousness often express an insight that at the ultimate origin of the energy we call "consciousness" is love. Such love is more than emotion; it also is claimed to radiate power and compassion and to have ultimate ontological status. Perhaps Dante was right when he wrote of "love that moves the sun and other stars" (Divine Comedy, Part III, Paradiso, Canto XXXIII, line 145).

Fifth are the reports of incredible beauty that appears intrinsic to mystical states. Persons often speak of utter awe at the magnificence they have experienced—how much they saw with their eyes closed. In the visionary world, there are art objects that the great museums would treasure if they were manifested in matter. There is a sense of amazement that such images can appear in the fields of consciousness of otherwise rather ordinary people. How to understand such reports is one of the current frontiers of human thought: Are persons rediscovering the Platonic realm of forms? Might we all have access to a universal cache of museum-quality images, either genetically encoded or spiritually accessed? However we may understand the origin of such beauty, the memory of it appears to leave most persons with enhanced reverence for their own minds. Such images, of course, are not mere photographs, but often are experienced as bursting with life and meaning.

ONTOLOGICAL INSIGHTS OR COGNITIVE IMPAIRMENT?

One who experiences the death and rebirth of his or her usual personality and who discovers the impressive memory of unitive consciousness

afterward typically is awestruck. Such consciousness frequently is described as feeling "more real" than everyday awareness. The archetypal images that surround it often are very surprising, not infrequently out of synch with one's expectations and enculturation.

From this experiential, subjective perspective, the reductionist assumption that posits that somehow we are our brains and that when we die and our brains decompose, consciousness vanishes appears highly questionable, perhaps significantly underestimating the mysteries of life. The Dalai Lama's reminders that "the view that all mental processes are necessarily physical processes is a metaphysical assumption, not a scientific fact" and that current neuroscience does not have "any real explanation of consciousness itself" (2005, pp. 128–130) may strike one as very reasonable.

But, like a medieval saint listening to a little demon on his shoulder, many also hear voices of doubt. Maybe mystical consciousness is one gigantic delusion, created by an intoxicated, malfunctioning, or dying brain, desperately denying its own finitude and transience. Is this a manifestation of pathology: cognitive impairment, schizoid withdrawal from reality, or mere regression to an infantile oceanic state of mind? Especially since we have a growing cache of data that identifies correlations between blood flow in the brain and different states of awareness, including mystical-like states (Newberg & D'Aquili, 2001), should not we assume that "correlation" actually is "causation" and we need look no farther?

We have arrived at that frontier where the growing edge of true science meets the mystery of the unknown, at least unknown insofar as it can be expressed through our present cognitive and verbal capacities. Here, each person is on his or her own, choosing the philosophical, religious, or spiritual framework in and through which one orients oneself and expresses one's being-in-the-world. Here faith takes over, either as belief in something or belief in nothing. Once again, we are aware that it is not in the purview of science to prove or to disprove the reality of God.

In harmony with William James, what we can expect from science, in good pragmatic style, is to help us discern the practical consequences of mystical consciousness, here in the everyday world. Does it contribute to making people more compassionate and courageous? Or, does it contribute to making people more superficial and irresponsible? Does it tend to make people more altruistic or more self-absorbed, more wise, or more deluded? Obviously, the answers to such questions must include consideration of variables in addition to the occurrence of mystical consciousness itself, most notably the development of the person before it occurred, the disciplines exercised to integrate its insights afterward, perhaps the collection of words and concepts available to articulate to oneself what has happened, and also

the interpersonal and community support available to facilitate integration. Many hypotheses can be generated and tested through carefully designed research projects, utilizing many different entheogens, known and yet to be synthesized, in different doses, in different supportive settings, with many different subject populations, examining phenomenological content of experiences, measurable changes in attitudes and behavior, and biochemical and neurological correlates.

THE POTENTIAL CONTRIBUTION OF MYSTICAL CONSCIOUSNESS IN TREATMENT

Let us consider the impact that the memory of mystical consciousness may have on (a) a terminal cancer patient, (b) a narcotic-addict or alcoholic, (c) a person suffering with severe depression or anxiety, and (d) a sociopathic personality. These thoughts admittedly are speculative, awaiting well-designed controlled research studies; yet they are supported by interpersonal interactions with many patients, volunteer subjects and colleagues, and remarkable consensus among those who have experienced mystical states.

Terminal Cancer Patient

Although many persons without terminal cancer who report memories of mystical consciousness also claim loss of a fear of death, this alleged insight can be especially comforting to those who know that their physical bodies soon will cease to function.

Typically fear becomes replaced with curiosity and trust in deeper strata of consciousness, usually described in one religious framework or another. Eternity, a state of awareness outside of time, often described as pulsating with love and life, no longer is an abstract concept, but rather is a memory of an experience, perhaps more vivid than the memory of visiting a foreign city on vacation. One knows he or she "really has been there." It is interesting that, in the wake of this experience, personal immortality—that is, the continued existence of the ego in time—generally ceases to be of importance. Rather the conviction is expressed that whatever it is that matters most in life indeed does endure. With this loss of the fear of death, in earlier studies with cancer patients at the Maryland Psychiatric Research Center, we often found decreased anxiety, depression, interpersonal isolation, and preoccupation with pain (Richards 1978, 1980; Richards, Grof, Goodman, & Kurland, 1972). Death is not denied, but rather life is seen in a broader perspective that transcends the journey between birth and death.

Regardless of one's philosophical assumptions or theory of the relation of the brain to human consciousness, it is striking that cancer patients who

experience mystical consciousness usually tend to behave in mature, centered ways afterward, to live the time that remains as fully and genuinely as possible, and not uncommonly communicate with family members in ways that are reconciling—an aspect of this research that has profound relevance for preventive medicine.

Many would see such behavior as evidence, not of impairment or pathology, but of health, maturity, and spiritual development. In our current research with psilocybin and cancer patients at Johns Hopkins, as in similar studies by Charles Grob and Alicia Danforth at University of California at Los Angeles (UCLA) and by Stephen Ross, Anthony Bossis, and their colleagues at New York University (NYU), we hope to replicate and further extend these findings, and anticipate their publication in the near future.

Narcotic Addict or Alcoholic

Pioneering investigations into the promise of psychedelic drug-assisted psychotherapy in the treatment of alcoholism and narcotic addiction in the 1960s yielded controversial results (Kurland, Savage, Pahnke, Grof, & Olsson, 1971; Ludwig, Levine, Stark, & Lazar, 1969; Rhead, Soskin, Turek, Richards, Yensen, Kurland, and Ota, 1977; Savage & McCabe, 1972, 1973). Clearly it was demonstrated that we are not dealing with a simple psychopharmacological effect; one does not administer lysergic acid diethylamide (LSD) to treat alcoholism the way one administers aspirin to relieve a headache. Set and setting are of paramount importance here, including the competent training of the therapists or guides who implement the treatment. As with cancer patients, so it is that the persons suffering from addictions who experience mystical consciousness often appear to derive the greatest benefit. Even when mystical consciousness is complete, however, this intervention is not magic: addicts still need continuing group support and often assistance with housing and employment.

Nonetheless, when an addict finds within himself the memory of mystical consciousness, his view of himself, others, and the world is likely to be forever altered. Having experienced incredible beauty and love within himself, it is much more difficult to view himself as worthless. He knows that there is no source of guilt or remorse that cannot be resolved and forgiven. The noetic awareness of his interconnectedness within the family of man can replace feelings of alienation and estrangement. And, of course, there is no doubt that the "higher power" stressed in Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) now clearly is recognized as a very real and vibrant reality.

Perhaps these were among the reasons that Bill Wilson, the founder of AA, was supportive of the use of LSD in the treatment of alcoholism after

his own personal LSD experiences (Alcoholics Anonymous, 1984, 370f). When we asked heroin addicts treated with psychedelic psychotherapy at the Maryland Psychiatric Research Center to compare heroin and LSD, almost invariably the two drugs were described as being diametrically opposed to one another: whereas heroin drew one away from one's interpersonal world into an anxiety-free, "warm bath," LSD tended to draw one "in and through" intrapersonal and interpersonal conflicts toward their resolution and the discovery of transcendental states of awareness.

Persons Suffering from Severe Depression or Severe Anxiety

Turning now to the psychedelic treatment of persons suffering from severe anxiety or depression, there are many research projects and tantalizing case studies from the 1960s and early 1970s that justify renewed investigations (Abramson, 1967; Hicks & Fink, 1969; McCabe, Savage, Kurland, & Unger, 1972). Some studies were conducted in the so-called psycholytic format, especially in Europe, with repeated low doses over time; others focused on the use of higher dosage and a small number of sessions, attempting to catalyze the occurrence of mystical forms of consciousness. At least one researcher, G. W. Arendsen-Hein in the Netherlands (Arendsen-Hein, 1963a,b), combined the two approaches, both in the design of his clinic and in the way he conducted psychotherapy, eventually providing a series of low-dose sessions in small rooms intended to resolve personal, psychodynamic conflicts, followed by a high-dose session in a beautifully appointed larger room that aimed at facilitating mystical forms of consciousness. In the process of healing, a meaningful process, uniquely and wisely designed within the mind of the patient, often has been reported (Newland, 1962). Inner conflicts (i.e., guilt, grief, fear, and/or anger) yield to resolution until one no longer can find a source of anxiety. Depression, as estrangement from oneself, can be overcome.

Sociopathic Personalities

Finally, the treatment of sociopathic personalities—people who find it hard to experience empathy, guilt, remorse, or respect for the value of other persons—remains a neglected and poorly funded area of research in a nation that allocates vast resources for incarceration. It remains my personal belief that any nation that can choose to send men into outer space and accomplish it also could find ways successfully to treat persons with strong sociopathic traits. Psychedelic therapy is one reasonable and potentially potent approach to explore, as it may catalyze empathic, meaningful attachments; it may

facilitate the resolution of childhood neglect and traumas; and once mystical consciousness occurs, it may decrease alienation and enhance a sense of belonging to the human family. Such research would probably require a number of psychedelic sessions in a matrix of high-quality individual and group therapy, probably within a residential facility. It would not be inexpensive but, compared with the costs of building and maintaining prisons, courts, incarceration, and recidivism, such research could make solid financial sense. All we have to date is the tantalizing pilot research with psilocybin and LSD in the 1960s (Arendsen-Hein, 1963a; Clark 1969; Doblin, 1998, 1999; Metzner 1999).

NONMEDICAL APPLICATIONS OF PSYCHEDELICS

Looking into the future, there are potential applications of psychedelics to consider beyond the scope of medical treatment.

First is the use of psychedelics in the training of some carefully screened religious and mental health providers. How many clergy and professors of religion have never personally experienced revelatory forms of consciousness? Personal knowledge of some of the varieties of religious experience could be of significant value to such persons, providing experiential grounding in the truths they proclaim and also tolerance and respect for other religious systems and traditions. Similarly, experiential knowledge is available of the terrain and principles of operation of the human psyche that could be of significant value for mental health professionals.

Second is the use of psychedelics in education and creativity in general, both in the humanities and the sciences. Consider the potential value of archetypal and mystical experiences for a scholar of philosophy or literature. Plato's "Allegory of the Cave" becomes simple to understand and Dante's *Divine Comedy* may come alive in new ways (Richards & Berendes, 1978). In the sciences, there are frontiers in biology (Sinnott, 1957) and physics (Capra, 1991) that might well be explored experientially as persons with the requisite cognitive and verbal skills reflect upon the mysteries of consciousness and the nature of matter. Geneticists Francis Crick and Kary Mullis allegedly found their creativity enhanced during the action of LSD (Ridley, 2009; Schoch, 1994). It is no secret that the art of Alex Grey (2001) has been inspired by the recall of visionary experiences. Jeremy Narby (1998) has made the intriguing proposal that some of the so-called divine architecture of Gothic arches and Islamic domes, reported during the action of psilocybin, actually may be subjective perceptions of cellular structures or photons being emitted by DNA. Rick Strassman (2001) invites us to take a second look at the pineal gland, which Descartes viewed as the "seat of the soul."

Third, of course, is the purely religious use of entheogens, as already is accepted in communities that have used mescaline-containing peyote, psilocybin-containing mushrooms or DMT-containing ayahausca in sacramental ways for hundreds, if not thousands, of years, continuing today. When leaders of major institutional world religions manifest sufficient vision and courage to address ways in which selected psychedelics might responsibly be integrated into worship or retreat experiences, there is much to be learned, not only from recent scientific research, but also from the indigenous peoples who appear to have long employed these substances wisely and safely, and without evidence of abuse.

THE PRESENT FRONTIER

Let us now consider the systematic research that patiently needs to be done if cultural attitudes are to shift and at least some psychedelic substances are to be reclassified and made more available with appropriate safeguards. Many readers may be familiar with our initial study at Johns Hopkins that demonstrated in a skillfully designed, controlled manner that psilocybin indeed is capable of occasioning experiences of mystical consciousness in many normal volunteer subjects (Griffiths, Richards, McCann & Jesse, 2006), and the 14-month follow-up study of those subjects that indicated sustained positive effects (Griffiths, Richards, Johnson, McCann & Jesse, 2008). We have since published an extensive paper that discusses how to maximize the probability of safety and benefit in the design of new research projects (Johnson, Richards, & Griffiths, 2008) and a dose–response study (Griffiths, Johnson, Richards, Richards, McCann & Jesse, 2011). These papers are easily found via the Internet, conveniently at csp.org.

I conclude with three suggestions regarding the design of future research; perhaps they may engender studies that some of you who read this chapter may implement.

First, it is important to be very cautious about generalizing about initial experiences with a substance and talking about that substance's "effects." A very broad range of experiences can occur during the action of many psychedelics, and only carefully designed comparative studies with adequate samples can tease out whether or not any particular substance may have a higher probability of providing access to a particular state of consciousness. Reflecting on the many reports I have reviewed of experiences facilitated by LSD, dipropyltryptamine (DPT), and psilocybin, I am not aware of any quality that is unique to any of the three beyond speed of onset and duration of action. Simply stated, the experiences are not in any drug; they are in us.

Second, let no researcher repeat the mistakes of the past by administering psychedelics without responsible attention to the potent variables of careful screening and selection, and of set and setting. Safety with these substances requires respectful, interpersonal grounding and the intent of the person who receives the entheogen to choose to relinquish the controls of the ego to trust unconditionally in a safe research environment. We know too much about the unique properties of these substances, including their potential to facilitate destabilizing and frightening experiences, to administer "just another drug" to unprepared or inadequately prepared volunteers in the name of so-called objective science. To do so, disregarding what we have learned in recent decades, would be unethical. Also careful screening is important, as there are persons with genetic tendencies toward severe mental illness and persons with cardiac arrhythmias and other physical conditions for whom the risk of adverse responses to psychedelic substances may be high.

Third, in our fascination with alternate states of consciousness, let us not forget the importance of the everyday interpersonal world with all its struggles. As Huston Smith has reminded us, what really matters is not "religious experiences," but "religious lives"; not "states," but "traits" (2000). In Buddhism, the enlightened man "chops wood and carries water" and returns from the mountaintop to the marketplace to serve others in harmony with the bodhisattva ideal in Judaism and Christianity, there is the model of the suffering servant as expressed in Deutero-Isaiah. Applied to research protocols in the potential medical applications of psychedelics, it is clear that the interpersonal grounding provided in preparation for psychedelic sessions and in the integration of the insights that occur is crucial; compulsive readministering of psychedelic drugs without taking time for integration is unlikely to yield positive results.

Research with these substances has led the growing edge of science to the gates of spiritual reality, to realms where time is experienced differently or wholly transcended, and where the deepest secrets of the nature of mind and matter may be revealed. This is truly awesome. It invites humility, not as the devaluing of ourselves, but as awe before the incredible vastness of being and commitment to the wise and responsible advancement of this fascinating research trajectory.

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NOTE

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