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THE TEN LESSONS OF PSYCHEDELIC PSYCHOTHERAPY, REDISCOVERED

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In this chapter, we will review some of the methodological lessons learned after sixty years of modern psychedelic research, draw connections to lessons learned earlier by tribal peoples, offer recommendations for changing policies and bureaucracies, and introduce a new worldview integrating tribal knowledge and psychedelic research. We will begin with a brief introduction to the history and applications of psychedelic psychotherapy and then move into a discussion of the methodological lessons learned over the past sixty years of clinical experience in the field. From this discussion, ten lessons from psychedelic research will be described and their tribal roots drawn. Then, since no critical analysis is truly justified or valid without an action plan for change (Nelkin 1979; Argyris et al. 1985), we will review the policy-making process and offer strategies for changing policies and bureaucracies. Finally, to implement tribal lessons will require a postmodern or integral worldview and so we will conclude with an attempt to expand the conceptual implications of psychedelic research, policy, and practice beyond the clinical and methodological to the ethical and philosophical.

INTRODUCTION: RESEARCH ON THE SAFETY AND EFFICACY OF PSYCHEDELICS

Psychedelic plants and derivative compounds and admixtures have been used safely for millennia by indigenous peoples (Furst 1972; Weil 1986; McKenna 1992; Devereux 1997; Arthur 2000). This tradition of shamanic practices provides the context for the use of psychedelics in psychotherapy and the foundation for our discussion of the methods of psychedelic psychotherapy.

In the West, between 1947 and 1976, there was a phenomenal explosion of interest and research (both inside and outside the laboratory) about psychedelics and their applications. During this time, thousands of peer-reviewed research papers were published in the scholarly literature, assessing safety and efficacy and honing clinical practice and research methodology (Grob 1994; Grof 1994; Grinspoon and Bakalar 1997; Halpern 2003). From a chemical perspective, the classic psychedelics are relatively nontoxic in adults, especially as compared with other drugs of abuse (Gable 1993; Science and Technology Committee 2006). In fact, the clinical literature agrees that psychedelics are generally “safe and effective when used as directed” (see “The Ten Lessons of Psychedelic Psychotherapy, Rediscovered,” p. 117).

Nonetheless, psychedelics are among the most powerful psychoactive chemicals known and when used in an improper setting or with conflicted intentions can cause considerable, although generally transient, psychological distress. (Psychedelics do cause sensory distortions, but not true hallucinations and so the term “hallucinogen” is a misnomer as applied to the classic psychedelics.) When subjects are properly selected and treated however, the research clearly and repeatedly has shown no long-term deleterious effects from the use of psychedelics under professional supervision (Cohen 1960; Abraham and Aldridge 1993; Halpern and Pope 1999, 2003; see also Frecska’s [Chapter 4] review of the safety issues in Volume 1). Whether medical or spiritual supervision is most appropriate and when regulated-but-unsupervised use might be acceptable are crucial issues yet to be effectively addressed by policy makers (Council on Spiritual Practices 1995; Forte 2000).

There has been more than a half-century of research on the psychological effects of psychedelics (see Grinspoon and Bakalar’s [1997], for the best review available, along with an extensive annotated bibliography). In the therapeutic context, psychedelics are generally used either one time with much preparation and a single high dose (*psychedelic* or “soul-manifesting” psychotherapy) or in smaller doses on a weekly or monthly basis, interspersed with talking therapy (*psycholytic* or “mind-loosening” psychotherapy). In psycholytic psychotherapy, psychedelics have been shown to be useful in facilitating transference and in bringing repressed childhood memories to the surface. Psychedelic psychotherapy has aimed at transformative, “peak” experience. While no medical use is officially accepted in the United States, many of the earlier individual practitioners and clinical researchers produced extremely promising but—due to subsequent constraints

on research—largely unexploited results (Grinspoon and Bakalar 1997; Walsh and Grob 2005). (For reviews of the research and practice of psychedelic therapy, see Part I, on addiction, in this volume, and Grob [Chapter 11], Montagne [Chapter 9], and Moreno and Delgado [Chapter 6] in Volume 1.)

In the clinical research that has been conducted, psychedelics have shown promise in

- criminal recidivism
- relationship counseling
- substance abuse and addiction, especially alcoholism
- post-traumatic stress disorder
- depression
- obsessive-compulsive disorder
- end-stage psychotherapy with the dying (mostly cancer and more recently AIDS)
- stimulation of the meditative state
- elicitation of mystical experience

FIVE METHODOLOGICAL AND THEORETICAL ISSUES

Clearly, psychedelics have potential for use in psychiatric research and practice (Grinspoon and Bakalar 1997; Multidisciplinary Association for Psychedelic Studies 2006) and in 1992, the FDA (Food and Drug Administration) resumed approving human-subject research with psychedelics (Doblin 1992). Nonetheless, there are still many methodological and theoretical questions left unanswered. These include five particularly thorny questions pertaining to self experimentation, methodological weaknesses in earlier studies, psychedelics' ability to provide pain relief, the staying power of psychedelic cures, and the validity of psychedelic spirituality. We will next address these issues.

Psychedelic Research and Self-Experimentation

When Western science began focusing on these substances, the first model of research was ethnographic. This was the age of European exploration and colonization and was largely characterized by repression of these substances, although some early naturalists and clergy did make note of the practices of the natives. By the late nineteenth century, some began gathering samples and bringing them back to fractionalize (separate into component compounds), assay (analyze a substance to identify its components), and titrate the results (try small amounts of the fractions to begin to characterize the effects of each). In this way, the second phase, that of self-experimentation began (Stevens 1988).

There has always been a strong element of bravery involved in the history of psychedelic research. The concept of assaying by pharmacologists—in their labs,

on their own—has fallen very much out of favor in the scholarly community these days and must come to be accepted again in research with psychedelics (Shulgin and Shulgin 1993). In addition, it is not just self-experimentation, but human-subjects experimentation more generally, that is integral to this history and is essential to consider in designing policy for psychedelic research. While there are markers of psychedelic effects in laboratory animals (e.g., excessive grooming behavior), such measures will always be inferential. To test the higher-order effects of psychedelics, we must use human subjects. Finally, giving these substances to subjects in safe, nonlaboratory settings (to facilitate particular, appropriate mindsets) can also be important. All of which leads to the conclusion that while regulating psychedelics is appropriate, restrictive control of scientists is not (Barrigar 1964; Weiss 1972; Szasz 1974; Strassman 1991; Henderson and Glass 1994; Stolaroff 1997).

There are enormous issues of personal freedom for the patients as well—for example, if a patient is dying and simply wants an ego death-rebirth experience to ease the process (Huxley 1962). The psychedelic treatment would not influence the outcome of their physical illness, but it could provide very important psychological benefits. Can we ethically deny a dying patient the freedom to direct his or her treatment? Moving even further out into the public arena, the next question becomes: What about people who do not want a psychedelic experience for any clinical or therapeutic reason, but “just” for what they view as a spiritual experience (Watts 1965; Merkur 1998)? At the end of the spectrum of practice then, what about those who are interested only in nonmedical, non-spiritual “recreational” use? These are some of the array of options and value judgments that we as a society are obliged to make.

Why Redo Psychedelic Research Already Conducted in the 1950s and 1960s?

Research methodology and ethics have changed considerably since psychedelic research was in full swing, forty or fifty years ago (Grob 1994; Strassman 1994; Grof 2000; Halpern 2003). Methodologically, we have become more sophisticated about and thus more sensitive to the subtler threats to the validity of our research. Such threats include selection bias (due to improper sampling techniques), the demand effects of the authority figure in the white lab coat, and the differential effect of the greater attention given the experimental group, all of which can subliminally influence results and limit our ability to generalize from the data (Campbell and Stanley 1967).

For much of modern psychedelic research in the early period (1947–1967), control groups were infrequently seen, random assignment to experimental groups was rare, and outcome measures were inconsistent across studies. Furthermore, in those studies with a control group, “TLC” (tender loving care—lots of therapy, hugging, extra nurses and other professionals around) and posttreatment follow-up, when included in the study, were frequently provided only, or

preferentially, to the experimental subjects. This methodology calls into question the validity of inferences drawn from the data.

For example, if the treated subjects had a shared experience with the researchers, they could have developed more of a sense of belonging and acceptance. If, due to the special attention, the experimental subjects developed more positive feelings than the controls, they could have been more likely to feel like staying in the program. There could be more subjects to follow up on among the experimental group than would be expected by chance, thus skewing the results.

It can be a wonderful experience to feel so cared for and that could provide a potential rival hypothesis to explain any salutary effects observed.

Then again, it might not, but we cannot tell from the studies, because many were not designed to control for that influence. We must conclude that in many of the early studies, due to the research design, there tend to be significant threats to the validity of the assumption that the psychedelic treatment was responsible for the positive effects observed (Pahnke and Richards 1966; Faillace et al. 1970; Abuzzahab and Anderson 1971).

Why Do Psychedelics Give Pain Relief?

Between 1963 and 1967, psychiatrist Eric Kast published several papers documenting his pioneering work administering LSD to the dying at the Chicago Medical School. For fifty cancer patients with gangrene, Kast compared Dilaudid, Demerol, and LSD for pain relief. The Dilaudid provided three hours of pain relief, the Demerol lasted for two hours and remarkably, the LSD lasted an astonishing ninety-two hours and up to ten days in certain instances (Kast 1963). With LSD, the analgesic effect came on slower, but lasted significantly longer. In Kast's next study, with 128 patients, the pain disappeared for twelve hours and was reduced for two to three weeks (Kast and Collins 1964). Kast explained these results as "the attenuation of anticipation" in his patient subjects. He theorized that the anticipation of their death provoked anxiety in his patients, which was met with denial, via sublimation and abreaction—transposing their anticipatory anxiety into physical symptoms, predominantly pain. According to Kast, the overwhelming nature of the psychedelic experience distracted from their anticipation of death, thus reducing felt anxiety and so the need for its transposition into pain (Kast 1967). (Further research will be required to determine whether an as-of-yet unknown pain modulation mechanism of the serotonergic system could be responsible for the pain relief observed.)

Beginning in 1965, Pahnke, Grof, Yensen, and others at the Research Unit of the Spring Grove State Hospital (and after 1969, in the Clinical Sciences Department of the Maryland Psychiatric Research Center) conducted psychedelic research with cancer patients. These researchers found the analgesia not so much associated with dose, but with peak experience. They also found that even among the group that had a peak experience, the analgesic effect was not reliably

replicable. What was replicable, however, was a change in attitude toward death among those with a peak experience. With a change in attitude and a freer airing and acceptance of certain family issues, the relationship with the family was often also improved, resulting in a more peaceful death (Pahnke 1969; Grof et al. 1973a,b; Richards 1975; Yensen 1975; Grof and Halifax 1977; Richards et al. 1977; Kurland 1985).

Another example of research on the healing effect of peak experience in psychedelic therapy may be found in the last works of Walter Pahnke. Working with the most advanced researchers in the most advanced psychedelic research facility of its day, Pahnke (a minister and a physician) gave LSD to seventeen dying patients. The subjects were given intensive therapeutic preparation, with lots of TLC. Two-thirds had dramatic or moderate improvement in tension, depression, pain, fear of death—but there was no control group. Their conclusion was that both drug and suggestion were required for a peak experience (Pahnke et al. 1969). Kast, on the other hand, did not give any preparation or TLC (beyond standard “bedside manner”) and still got excellent results. The answer, of course, is not an issue of “either/or,” but rather a matter of degrees. Either drug alone, or suggestion alone, may lead to a peak experience, but giving both simultaneously will more reliably do so (Pahnke 1969).

Grof wrote an influential book with anthropologist Joan Halifax called *The Human Encounter with Death* (1977), based on his work at the Spring Grove and Maryland Psychiatric facilities. Grof and Halifax describe the analgesic effect of psychedelics as unpredictable, but the philosophical, psychospiritual effects as more profound and long-lasting. They hypothesized, similar to Kast, that the reason these people had such an extraordinary analgesic effect from LSD was not because LSD is an analgesic, *per se*. In this culture, it is much more acceptable to say: “I hurt physically—give me a drug to relieve the pain,” than it is to say: “I’m terrified of dying, and there’s nothing you can do for me.” As such, it was hypothesized that a proportion of the pain involved in a cancer death is actually displaced fear of dying. When patients have a peak LSD experience (or potentially any experience that reduces fear of death, such as a transformative spiritual event or near-death experience), they have less need to displace their anxiety into more socially acceptable pain symptoms and so the felt degree of physical pain can decrease.

Psychedelic research with the dying was the last to stop and should be among the first to start again. The issue of short-term effect, with the attendant need for booster shots, is less of an issue with the dying—a short-term effect is all that is sought. Yet, there is a danger of developing a subtly cavalier attitude in dealing with the dying. A negative result has no less negative impact just because the subjects will be dead shortly after treatment. In fact, a negative result is worse for a subject with precious little time to sort out a sad or confusing experience. Even so, the potential to reduce the fear and even the physical pain experienced by the dying, to improve family relations and so fewer die angry or estranged, to provide a peaceful state of mind in the weeks before death—these are the

kinds of suggestive early findings that cry out for careful further research (Phifer 1977).

Can Psychedelics Provide a Lasting Cure?

Use new drugs quickly, while they still work.

—attributed to Armand Trousseau, 19th-century French internist

There has been clinical research demonstrating the effective use of psychedelics in all of the categories of application listed above. Yet, to generalize, the data do not show permanent effects.

In criminal recidivism, for example, Timothy Leary, while still an instructor at Harvard, did a fascinating study at the Concord Correctional Facility in Massachusetts, showing a twenty-five percent recidivism rate for the first six months after treatment, versus sixty-four percent for the general prison population. Twenty-four months later, however, no difference in recidivism was seen (Doblin 1998).

In Arendsen Hein's pioneering work with LSD (lysergic acid diethylamide) in Holland, two-thirds of his most-difficult cases were improved in his 1963 study (Hein 1963). In his 1972 follow-up, he was so disappointed that he recommended that psychedelics be used primarily with the dying—because you do not have to worry as much about the effect fading (Hein 1972).

In the research literature on alcoholism, we repeatedly see moderate to dramatic improvement in hard-core alcoholics six months after treatment with psychedelics, but in later follow-up, the rates of alcoholism are similar to those before treatment (Faillace et al. 1970; Abuzzahab and Anderson 1971; Halpern 1996).

Clearly, this type of treatment effect can be profound and potentially life-changing, but proves to be short-term. As such, if this treatment effect is to be adopted, implemented, and sustained over the long term, this finding indicates the need for a public policy of taking the medication on an ongoing, periodic basis. We do not expect penicillin to work in one dose and we do not expect insulin to be a short-term treatment resulting in a cure—we accept the fact that penicillin must be taken repeatedly over a period of time and that insulin is required on an ongoing basis.

The NAC (Native American Church) provides a good example of an ongoing “treatment.” Although there is a high frequency of alcoholism among Native Americans, members of the NAC take peyote on a regular basis and have a very low alcoholism rate. There is no drinking permitted among church members and they view the peyote ceremony as being part of the cure for alcoholism (Halpern et al. 2005). Of course, these are only suggestive, correlational findings, and yet the NAC and the South American-based ayahuasca churches, UDV (União do Vegetal) and Santo Daime, all represent “natural experiments” (Campbell 1969), the results of which must be carefully

considered in creating policies in the United States for psychedelic psychotherapy and sacramental use.

Can Psychedelics Induce Real Spirituality?

Scholars of the origins of religion have speculated that hunter-gatherers would surely have ingested psychedelic plants and shortly thereafter experienced what may have been our first intimations of spiritual consciousness (Weil 1986; Reidlinger 1990; Schultes and Hofmann 1992; Devereux 1997; Arthur 2000).

In contemporary research, subjects do, in fact, report mystical and peak experiences (Griffiths et al. 2006, this volume). Masters and Houston's classic research on 202 subjects found ninety-six percent experienced religious imagery; three percent reported a full mystical experience; forty percent had less fear of death; sixty percent had increased trust in God—or in life, if they were atheists. This finding was correlated with dose and with the setting: religious music and iconography increased the likelihood of peak experience (Masters and Houston 1966).

Masters and Houston came up with four stages of a psychedelic experience. The mildest, or earliest, stage is *sensory-perceptual*—wherein visual distortions and other sensory phenomena predominate. The second level, stronger, deeper, and later in onset, is what Masters and Houston called *recollective-analytic*—covering childhood memories and psychological issues. The third level is the *symbolic*—with a focus on archetypes, the ecological, the mythic, the global. The fourth and final level is what they called *integrative*—a full-blown mystical experience.

Yet these stages of intensity of psychedelic experience do not vary just based on increasing dose. In addition, a peak or “religious” experience is more likely to occur as time progresses over the course of a single trip (e.g., in psychedelic psychotherapy), as experience with psychedelics increases over time (e.g., in the course of psycholytic psychotherapy), and as experience and maturity increase over years of use. Emphasis tends to be on the sensory/physical first, moving on over time, dose, experience, etc. toward the ecstatic. This progression parallels the stages of developmental psychology, with their successive loss of egocentrism, as well as the developmental sequence laid out in yogic chakra levels, which move from personal bodily concerns, through compassion for others, to spiritual unity with the Universe.

Walter Pahnke, for his PhD in Religion and Society at Harvard University, conducted a study referred to as “The Miracle at Marsh Chapel” or “The Good Friday Experiment.” Pahnke used twenty divinity students, double-blind in a strongly religious setting. Half the subjects received thirty milligrams of psilocybin (a large dose); half got an active placebo comprising nicotinic acid, which gives a flushing sensation, and Benzedrine. Forty-five minutes into the experiment, everybody knew who had the placebo and who had received the experimental treatment.

In analyzing the results, Pahnke used the work of W.T. Stace, a philosopher of religion, who identified seven characteristics of the mystical experience: unitary consciousness; nonspatial, nontemporal awareness; sense of reality and objectivity to the experience; blessedness; sacredness; paradoxicality; and ineffability—the inability to describe it. Pahnke added two more, transiency and subsequent life improvement, for a total of nine characteristics of the mystical experience to use as a measure in the study (Pahnke and Richards 1966).

The results showed five of the ten who received the active treatment were significant in all nine of the categories. Nine of the ten reported having a true religious experience. Although the double-blind was blown as soon as the psychedelic took effect, the use of a control group can still help by equalizing expectations—and thus the crucial variable of anticipatory “mindset”—between the control and experimental groups early on, before the drug takes effect.

In a recent, carefully designed study, Griffiths and colleagues at Johns Hopkins University replicated Pahnke’s results, with twenty-four of thirty-six volunteers reporting a “complete mystical” experience with psilocybin, compared to four of thirty-five controls receiving an active placebo (Griffiths et al. 2006).

Even in studies that scrupulously avoid religious imagery and iconography, subjects still report spiritual experiences. In Oscar Janiger’s pioneering research with LSD in a neutral, nonreligious environment, twenty-four percent of volunteers report experiences that “resonate closely with classic descriptions of spiritual transcendence” (Dobkin de Rios and Janiger 2003).

To summarize then, in terms of spirituality, it is quite clear that subjects do, indeed, report spiritual experiences: twenty-four to ninety-six percent in several studies, depending on the set and setting. The question that frequently arises next is: Is the peak experience derived from psychedelic drugs a real spiritual experience or a type of chemical mimicry? There has been much debate on that issue and I will not try to resolve it here (Zaehner 1973; Huxley 1982). In general, however, people who have experienced the psychedelics are more likely to be among the camp who claim that it is a real spiritual experience and those who claim it is not a real experience tend to be those who have not experienced psychedelics personally.

How do we separate mystical experience from the underlying neurochemical substrate? All our bodily and psychological phenomenology is mediated by what happens in the brain. In reality, we do not experience the outside world: rather, our experience is of internal neurochemicals released by the brain in response to electrical signals triggered by incoming stimuli from the outside world (Porush 1993).

Many people have noticed that there is a consistent worldview that visionaries, seers, and gurus see and report back: unitive, transcendent, accepting, trans-physical, indescribable, infinite, joyful, and whole (Pahnke and Richards 1966; Roberts 2001; Walsh and Grob 2005). Moreover, the visionaries, seers,

and gurus have pointed consistently to the many ways to get there: meditation, drugs, fasting, mortification of the flesh and self-flagellation, rituals, trance, rhythmic drumming, focusing incantations, mantras, spells and other directed logos, breathing exercises, prolonged wakefulness, sensory deprivation, carbon-dioxide build up in the blood, and so on. All these techniques have been used to induce profound mystical experience, with marked accompanying changes in brain chemistry. Is what is going on in your brain right now *will*, or is it chemistry. Or are those simply two perspectives on the same thing—two different levels on our conceptual resolving microscope?

If we are indeed moving to an “integral” worldview in which chemistry and spirituality are seen as mirrored perspectives on our essential wholeness (Ellwood 1994; Ajaya 1983; Wilber 2000), then we are also moving toward a world where medicines are used not only to heal sickness but also to facilitate personal growth among the healthy. As has been the case for the past fifty years, the “baby boom” generation of entitled seekers will help spur this transformation in government policy, from sickness medicine to the even bigger market for wellness medicines. Clearly, the pharmaceutical companies would be eager for a huge new market and so scientists and regulators must consider hard the consequences of permitting the manipulation of our own biochemical endowment. This is especially the case as advanced technologies such as positron emission tomography, functional magnetic resonance imaging, wide field fluorescence microscopy, laser scanning confocal microscopy, live-cell confocal and high-resolution deconvolution microscopy, and intelligent computer modeling eventually will enable us to specify all actual and potential relationships between the structure of our neural receptor sites and the activity that would result from all possible chemical fits. Once we have specified the nature of all SARs (structure–activity relationships), we will be immeasurably more vulnerable to unscrupulous governmental or commercial organizations bent on control and exploitation (Center for Cognitive Liberty and Ethics 2006).

If psychedelic peak experience psychotherapy does induce a true spiritual experience, as most subjects claim, then are psychedelics most appropriately in the purview of physicians and scientists, or would the clergy be more appropriate? The Council on Spiritual Practices is interested in what they call entheogens—substances that engender the spiritual within us. Founder Robert Jesse is working with theologians because he feels that these substances are sacraments that should be reintroduced into established religions and used without medical administration (after medical screening) (Council on Spiritual Practices 1995).

Psychedelic research has gained enormous sophistication over the years in grappling with methodological and theoretical issues such as these. In the next section, we will review the major clinical lessons learned in modern psychedelic research—and identify the tribal¹ knowledge preceding and grounding each of them (Lukoff et al. 1990).

THE TEN LESSONS OF PSYCHEDELIC PSYCHOTHERAPY, REDISCOVERED

As tribal society evolved over thousands of years, a set of ritual and community support structures—guidelines of procedure and context—grew up around the use of psychoactive plants, resulting in the first “safety and efficacy” standards (the key criteria used by regulators in approving new drugs). The driving considerations were and are now, 1) how to take these substances in such a way that people have the experience that they are looking for and 2) how to do so with the least deleterious effect on the body, mind, and society. The regulatory and policy debates we are having as a society today may be seen, in part, as an attempt to recreate the controls, guidance, and support that evolved naturally in prehistory.

Over the past fifty-plus years, Western researchers have systematically “reinvented the wheel” of ancient practice in roughing out the contours of safe and effective psychedelic psychotherapy. The primary clinical “innovations” discovered in the West for the use of psychedelics, such as “set and setting,” turn out to be rediscoveries of methodologies honed through centuries of hard-won tribal trial-and-error experimentation. As such, we must now rethink, embrace, and expand upon the true foundations, not just of western practice, but of western research, as well.

What follow then, are ten “lessons learned” for psychedelic psychotherapy, along with the tribal foundation for each.

1. Each Drug has a Specific Effect

Match effect to purpose. Familiarity with the particular substance, its action and usual constellation and arc of effects are crucial to a successful experience.

All “non-ordinary” states of consciousness are similar, by definition, in that they are different from our consensual reality. Many first-time psychedelics users are surprised, sometimes frighteningly so, at the experience and realization that states of consciousness other than our default, waking state exist at all (Roberts 2006).

Plant-based or laboratory-conceived psychoactive chemicals mimic or block the operation of neurotransmitters (chemical messengers in the nervous system that influence perception and mood). The numerous neurotransmitters (e.g., serotonin, norepinephrine, dopamine, and acetylcholine) act by triggering or blocking the firing of corresponding receptor sites in our brain (the neurotransmitters fit into the receptor sites like keys into locks). The receptor sites associated with each neurotransmitter come in an array of subtypes. For example, serotonin (5-hydroxytryptamine or 5-HT) has approximately fourteen receptor site subtypes. To make this even more complex, most psychedelics operate on more than one neurotransmitter system (e.g., peyote interacts with the dopamine and serotonin systems, among others). One way to get one’s mind around this complexity is to think of SARs—the way neurotransmitters trigger (agonize) or blockade (antagonize) receptor sites—using the metaphor of a large church pipe organ, with multiple keyboards. Imagine each keyboard represents a different neurotransmitter system, serotonin on one keyboard,

dopamine on the next, and so on. Next, imagine that the white keys represent the release (agonism) of a neurotransmitter and the black keys represent the suppression (antagonism) of a neurotransmitter. Finally, let us think of chords as the complex interweaving of agonism and antagonism of receptor site subtypes involved with a particular drug's mode of action. Using this model, when a subject experiences LSD, for example, serotonin is the neurotransmitter most heard, but "chords" on the dopamine, norepinephrine, and other keyboards are also played. Furthermore, LSD is likely to play a different chord on the 5-HT keyboard than 5-HT itself (because even at the level of individual receptors, the binding action of LSD is not identical to the binding action of 5-HT), adding yet another level of complexity to the mechanism of action. This rich mix of interactions helps explain how each drug, while based on the same building blocks, will have often dramatically different effects.

Tribal societies have a very purposive and articulated natural psychopharmacopia. Living in an entirely natural environment is like living inside a drug store (and grocery, and hardware store, and church!). Moreover, tribal knowledge gained over millennia makes living in nature's pharmacy somewhat akin to the pharmacist who has worked in one shop for forty years and does not have to think about where each item is kept or even about how to combine them into prescribed admixtures.

*For example, the active ingredient in the ayahuasca used in the Amazon, DMT (dimethyltryptamine), most commonly comes from the leaves of *Psychotria carthaginensis* or *P. viridis*. However, DMT is not active orally, being broken down in the gut by MAO (monoamine oxidizer) enzymes. As such, tribal users long ago learned to add a separate chemical, a MAOI (monoamine oxidizer inhibitor), most commonly harmine from a vine, *Banisteriopsis caapi*. Although these are the most commonly used mixtures and all ayahuascas combine some source of DMT (or the closely related, 5-MeO-DMT) with some source of an MAOI, there are many different recipes and the natives have different names for the different types and strengths of ayahuasca (Schultes and Hofmann 1992).*

When natives were asked how they came to find this exact combination of active substance and activating substance, among the millions of potential combinations of plant leaves, bark, root, or wood, prepared in any number of boiling, grinding and filtration preparation methods, and then combined with one or more additional substances with similarly complex arrays of potential selection and preparation, they replied, "The mushrooms told us" (Narby 1999).

While this story may be apocryphal, it is clear that native experimental methods have been quite effective. Pre-agricultural cultures did not have our formal, institutionalized scientific methods, yet experimental designs were used. For example, systematic comparisons must be made among different types of leaves for their ability to be shaped into a drinking vessel, or different bones for their tensile strength and ability to hold a sharp edge). Without our institutional science, but with generations of time and traditions, a kind of "serial" experimental control would have been used—a systematic, directed trial-and-error. That is, rather than testing a variety of conditions simultaneously, as we do with experimental treatments and controls, native innovations evolved serially, over time, as prior knowledge was improved upon, trial by trial. This new knowledge was then incorporated into the tribal armamentarium to be maintained and passed down through religious ceremony, ritual, and culturally instantiated daily behaviors and oral traditions.

2. Setting Can Strongly Influence State of Mind and thus Outcome

Early researchers sometimes strapped subjects to beds in hospital rooms, under the mistaken view that psychedelics mimic psychosis. Most (but not all) subjects under these conditions had hellish experiences, thus seeming to confirm the “psychotomimetic” hypothesis. Another similar term used at that time was “hallucinogen,” which is still used in medical and some scholarly contexts. However, drugs such as LSD rarely produce true hallucinations (e.g., seeing and conversing with a person who was not actually present). Even in institutional settings, enough subjects had beatific experiences that another explanatory term emerged: “psychedelic” or mind manifesting. Over the years, researchers and clinicians have generally come to provide a nonthreatening, physically comfortable, pleasing to the senses, safe and secure environment, often with a specific familial items (e.g., pictures and dolls) or religious content (e.g., icons and prayer books) (Zinberg 1984; Grob 1994). (The setting must be “safe and secure” not just so there are no outside interruptions, but also to assure that a frightened or confused subject or patient cannot bolt the session room.)

Psychedelic subjects can be highly suggestible (Dobkin de Rios and Grob 1994). Although beatific psychedelic experiences were possible in mental hospitals during the psychotomimetic period, therapeutic peak experiences are more readily attained amid a setting with personally meaningful spiritual music and iconography (Pahnke 1967). Far from problematic, this suggestibility is one of the foundations upon which successful psychedelic psychotherapy must be built.

At the opposite extreme, some healing and psychotherapeutic use of psychedelics has employed carefully designed and controlled intensity as a lever to help patients experience, confront, and resolve their deepest fears and pains (Yensen 1989).

The tribal context for psychedelic use is inherently safe. Unlike in industrial society, tribal use of psychedelics takes place in a natural context, both environmentally and culturally. When a young person takes a psychedelic in a tribal setting, it is generally in the context of ritual, frequently a rite of passage from one stage of life into the next, and support by family members and other authority figures is the norm. Later, the entire tribal milieu naturally assists in integrating the experience. No sneaking behind the barn to hide drug use here, rather, this is publicly supported use of a sacrament, in a positive and relaxed environment.

At the opposite extreme, many tribal practices have a fearful and intense component, to stimulate change during the rite of passage. Yet within the supportive tribal environment, these fearful or painful practices are accepted as healing (Furst 1972; Schultes and Hofmann 1992).

3. Mindset Can Scuttle a Beautiful Context or Transcend a Hellish One

Open-mindedness and willingness to “surrender” to the process, confidence in people and surroundings, and motivation to learn and heal, rather than to escape or be entertained, are all associated with successful outcome (Zinberg 1984; Kurland 1985; Grinspoon and Bakalar 1997; Badiner 2002).

Mindset is perhaps the single most important factor in determining the outcome of a psychedelic experience. More influential than setting or dose, set trumps all, because it determines the phenomenology or direct internal experience of those other factors.

Even so, it is difficult to discuss mindset without simultaneously discussing setting. Setting strongly influences the mindset of the suggestible psychedelic user and

yet mindset can overcome the influence of even the most powerful religious or family triggers (Pahnke 1969). Another term, used similarly to “set,” is “intentionality.” If the deepest, truest intent with which one approaches the experience is sincere and open to whatever learning is encountered, then a positive experience is more likely. On the other hand, if one’s true intent is to avoid certain issues, the stress of that avoidance could cause emotional symptoms that influence the nature and outcome of the psychedelic experience. Of course, such a “negative” experience is also a developmental challenge, the addressing of which brings maturation and a more open intentionality.

The forces that explain the Universe in the animistic worldview are well known by all and driven by spirits that include the plant aides. The plants are seen as active, conscious agents—plant spirits—rather than as things, an engagement with the world and with experience, that is explicitly reverential (Buber 1923; Suzuki 1997).

Tribal participants are completely “bought into” the concept and practice of using plants for healing and divination, and are positive about the benefits to be accrued. Tradition communicates the appropriateness and value of the experience. The tribal worldview fully accommodates the healing action of the ceremonial use of psychoactive plants. Psychedelics increase suggestibility and the sacramental, receptive tribal mindset is ideal for the effective use of these plants to catalyze spiritual transformation (Dobkin de Rios and Grob 1994).

4. In General, Dose Determines a Mild or Extreme Experience, Although It Can Be Less Important than Set and Setting

Match of dose to purpose can be crucial (Zinberg 1984). For example, meditative practice tends to employ a very low dose; psycholytic psychotherapy tends to use a small-to-moderate dose repeated over a period of months in the context of ongoing psychotherapy; psychedelic psychotherapy tends to apply one, or a small number of large doses, aiming for a “peak experience”; some individuals will use very large doses in their quest for spiritual transformation. In terms of intensity and dose, there seems to be some positive correlation between dose and Masters and Houston’s four stages of the psychedelic experience (sensory-perceptual, recollective-analytic, symbolic, and integral). A mild dose may elicit only rosy colors and a sensitivity to nuance in music; a stronger dose may bring one’s focus to psychoanalytical content or a sense of oneness with nature; the most-intense doses may bring one to what has been called a “white light” experience, where there is complete dissociation from one’s sense of self, body, and surroundings and subjects experience what is referred to as “ego death,” a potentially blissful—or terrifying—experience.

With higher doses of psychedelics, sometimes called “overwhelming” doses, the tendency of psychedelics to bring one toward dissociation from one’s ego or sense of individuated self is more difficult to resist. At full doses, the attempt to hold back or control the psychedelic experience is costly in emotional stress and almost certain to be a negative influence on the experience of the subject. In some people, at some times, resistance is impossible without regression to infancy, for example, or some other dramatically dissociative temporary psychological strategy for avoiding the anxiety associated with the experience.

While dose can have a powerful effect, mental state—openness and receptivity, mindfulness, and intentionality—can be even more important in determining outcome. Those in a relaxed, open state of mind and eager for a spiritual experience

certainly can have a peak experience on a just-noticeable dose. Of course, such a receptive state of mind can engender a spiritual experience with no drugs at all—and a nondrug-based spiritual experience can be feared and resisted. In fact, some say that our “normal” state of mind is actually a repressed and impoverished version of the much broader, deeper, and more alive, true, underlying reality of yogis and physicists that, in our immaturity, we resist (Hofmann 1983).

There is a difference of opinion on whether “ramping up” to full dosage over a number of experiences reduces the potential for panic or simply enables the subject to develop, maintain, and incrementally increase defenses. Generally, smaller doses are used for ongoing psychotherapy; larger doses for transformative practice. The “psychedelic” approach combines these two, alternating periodic large doses with ongoing smaller doses (Grof et al. 1973b).

Tribal practices are specific as to the recommended doses for purposes such as hunting, healing, or divination. The native dose has frequently been described as large—overwhelming—by many Westerners. Yet, the full integration of sacred plants into the tribal worldview and lifestyle means that these substances are woven into the day-to-day lives of natives. An example is Huichol mothers providing doses of mescaline as they nurse their infants or biting off small pieces of peyote buttons to feed to their babies (Stuart 2004). This usage by children, in the tribal context, has resulted in no negative neurochemical or developmental consequences (Dobkin de Rios and Grob 1994; Grob 1994; Halpern et al. 2005).

5. Preparation and Knowledge Can Enable Lasting Value

If the psychedelic experience is a “trip,” then, as with any journey, it must be prepared for in advance. Mental and physical preparation in the days before the experience is associated with beneficial outcome. An attitude of open acceptance toward oneself and the upcoming psychedelic experience is important, as is familiarization of the subject with writings on the experience he or she is about to have. The subject or patient should be in touch with his or her own inner issues, through psychotherapy or a spiritual practice (Stolaroff 1993).

It is wise to eat digestively undemanding foods the prior day or two (avoiding spicy foods, meat, salt, alcohol, and caffeine) and to have an empty stomach for the experience itself. Furthermore, planning for a day out of contact with friends, family, and colleagues and preparing a setting with no interruptions are important to a relaxed, focused experience.

Relatives and shamans focus the tribal participant on the problem, illness, object lost, mate’s infidelity, etc. prior to the “medicine work.” Yet, through their upbringing, their shamans, and their own experience with ritual, tribal participants are fully familiar with the expected effects of their ecosystem’s sacramental plants. Expectations are generally accepting of the process—that the spirits, while not completely predictable, are subject to sincere entreaty. Thus the tribal user enters into the psychedelic experience knowledgeable, optimistic, accepting, and willing. While the content seen or outcome of the encounter with the sacred plant is unpredictable, the nature of the experience itself is not a surprise at all, fitting in as it does, so fully into the native culture and perspective (Furst 1972; Narby 1999).

6. Ritual Can Transmit Prior Wisdom and Guide Successful Practice

The Santo Daime and UDV ayahuasca churches are good examples of a modern approach to psychedelic ritual in a church-like setting; another example is the NAC

and their peyote meetings. All three accepted, legally sanctioned churches are modern, syncretic creations combining elements of Christianity with elements of the native pantheon of spirits and tribal ritual. In creating such a vehicle, these churches have borrowed perennial truths and religious elements—in part and whole—chosen rituals, and developed symbologies and ways of interpreting spiritual experiences that reflect, preserve, and transmit their values and successful practices (Huxley 1944).

Over the decades of modern research, the psychedelic community has learned to benefit from the accumulated wisdom of previous practitioners—for example, to have procedures, guidelines, logistics, set and setting, and security in place (Council on Spiritual Practices 1995; Stolaroff 2001). In a sense, methodological protocols and guidelines for successful clinical practice *are* our modern-day rituals—practices honored for their effectiveness in producing specific states or outcomes, repeated over generations, with only slow accretion of newly accepted innovations. The use of standardized practices (rituals) in psychedelic psychotherapy provides a way to inculcate dramatically, to imprint, safe and effective methods. When we require careful preparation, support, a positive set and setting, follow-up, and the like, we are engaging in ritualized behaviors that reflect, preserve, and transmit our values and successful practices.

Today, ritual in psychedelic psychotherapy can offer an outlet for needs formerly met by highly organized, highly ritualized religions, such as shamanic practices or traditional Catholicism. Yet, we must remain flexible, as some individuals may not respond well to ritual. Even so, meta-protocols for specific types of need, such as for church study groups, substance abusers, teenagers, newlyweds, and the dying may provide valid and reliable procedural anchors with which to successfully bring psychedelic practice to the general population (Council on Spiritual Practices 1995; Forte 2000).

Tribal rituals instantiate the trial-and-error discoveries of ancestors. Western science uses laboratory controls to compare multiple treatments simultaneously (call it “horizontal” research design), while tribal comparisons of multiple practices occur over millennia of experimentation (“vertical” design). Nonetheless, the results of tribal experimentation over time concur with—and indeed can guide in their contextual wisdom—results only now being seen in Western research.

Rituals organize rites-of-passage, helping the community navigate the individual or age cohort from one stage of life to another (Furst 1972). Rite-of-passage rituals symbolize and transmit time-honored truths about the nature of each stage in life and the mindsets and practices most likely to facilitate successful transition.

On the other hand, tribal ritualized practices tend to be more formal and deterministic than much of Western psychotherapeutic practice (if not Western religious practice). In part to address this perceived rigidity, scholars at the Council on Spiritual Practices in San Francisco are attempting to create modern psychedelic religious ritual that is profoundly meaningful, but not dogmatic (Council on Spiritual Practices 1995).

7. Support from Experienced Guides Reduces Fear and Increases Benefit

We have learned to involve trusted significant others—family, therapist, and physician—in the process of psychedelic psychotherapy. In most contemporary models, significant others communicate with the subject before, are nearby during, and available after a psychedelic treatment. The focus is on the benefit to the

participant, and guidance is responsive to request, rather than proactive or directive (Council on Spiritual Practices 1995).

There is some debate as to the wisdom of having a psychedelic experience alone. Clearly, psychotherapy would not be taking place during a solo psychedelic experience. However, profound meditation and introspection generally results and the content of the session could produce significant fodder for subsequent therapeutic discussion and analysis. Even if the choice is made by an experienced adult to have a solitary experience, supportive others should be readily available.

One way to mix solitary with supported experience is to have a group experience with places available for solo exploration. Another way to mirror tribal experience is to include a range of age groups, from young adults to “elders.”

In tribal practice, depending on the culture and the purpose, a psychedelic experience may entail the shaman being the only one who takes a psychedelic, the tribal participant and the shaman ingesting the psychedelic together, a rite of passage or other group ritual, or the entire tribe participating (Bravo and Grob 1989; Schultes and Hofmann 1992).

In tribal ritual, the whole family can be involved! In addition to the doctor-therapist-pharmacist-priest (that is, the shaman) and the mayor-police chief (that is, the tribal chieftain), the immediate and extended family may be present. When difficult developmental challenges growing out of a psychedelic ritual are experienced, then or later, they are done so with the full knowledge and support of experienced, loving role models. If a youth experienced a difficult time at a rite of passage and was grappling with the transition, he or she would not have to hide, but could count on any number of clan-mates able to discuss the issues being experienced.

8. Reentry to a Supportive Community Context Aids Retention

Many epiphanies are lost and resolutions broken by the “after-the-marathon-weekend” effect—that is, reentry into the same context in which the problem was developed. To maintain benefits, it is best for a patient’s life context to be supportive and proactive (not illicit and secretive) toward psychedelic therapy. This is one of the reasons why the hippies of the 1960s decided to “get back to the land” and create remote, self-sustaining communes (Stevens 1988). Even so, every bodhisattva must return to society until all are liberated, and to derive full, healthful, integral benefit from psychedelic experiences, engagement in consensus reality must be seen as part of the good work of personal and societal development.

The online context is increasingly important as a supportive community, especially as such support is so sparse in the physical world in today’s predominantly conservative cultural and political environment. However, online communities and a few pockets of tolerance in urban centers do not provide a substitute for the interwoven hearts, minds, and eyes of tribal members. The implication being the necessity for fundamental sociocultural change (see “Changing Policies and Bureaucracies,” p. 125).

The tribal system is an excellent example of a unified, supportive community context (one actively acknowledged and emulated by the hippies). The tribal worldview is completely consonant with the experience of psychedelics. The nonstandard nature of the psychedelic experience is accepted and readily explainable within the standard philosophies and perceptual, cognitive, and conceptual expectations of animist cultures (Furst 1972; Narby 1999; Schultes and Hofmann 1992).

9. Accompanying Depth Psychotherapy (If Needed) and Ongoing Spiritual Practice Offer the Main Opportunity for Lasting Growth

Since psychedelics generally do not generally effect “cures,” gains in psychological peace and spiritual maturity must be maintained with the support of an ongoing practice. For certain needs or areas of focus, this practice might be psychotherapy; for others, spiritual practices such as yoga, meditation, chanting, and prayer might be employed (Stolaroff 1993). Adopting a course of psychotherapy or spiritual practice is both an aid to and a sign of change (Mercur 1998; Ajaya 1983) and the associated psychospiritual worldview that emerges has been correlated with improved and maintained health (Ballentine 1999).

Huston Smith warned us that a spiritual experience is not the same thing as a spiritual life (Smith 2005). Aldous Huxley referred to the psychedelic experience as a “gratuitous grace,” in that it was not predictable, deserved, or attainable through effort. Rather, it was a state of grace without reasons why or strings attached (Huxley 1982). Yet a spiritual experience induced out of context of the rest of one’s life and history is like a cut flower: beautiful, but with no prepared foundation in which to root and grow, doomed to fade.

Spiritual practices are already a deep part of tribal life, before, during, and after a psychedelic rite and so new development is readily integrated into a preexisting fabric of self-in-culture-in-nature.

10. A Revised Worldview Is Both a Requirement for and a Result of Integrated Psychedelic Practice

A postmodern² worldview integrates mind and body, energy and matter, and spirit and the “real” world. This neo-animist perspective accepts and reinterprets such disparate phenomena as emergent properties, synchronicity, extra-sensory perception, health, chi, and spirituality into a view of the Universe as fundamentally alive and minded (Heard 1937; Teilhard de Chardin 1959; Bateson 1987; McTaggart 2002).

How does this worldview facilitate—and result from—psychedelic healing? The very question implies the prior question of what it is that is being healed—our psyches, our relationships and families, our nation, our politics and history? Further, in an integral, postmodern world, what is actually doing the healing? Medicine? Drugs? Therapy? Spiritual practice? Compassion? Service? Love? What perspectives and methods have emerged over time as consistently effective (Murphy 1992) and what would such a “perennial” treatment look like (Ballentine 1999)? Finally, what would be a reasonable action path to a future with a healing worldview, a worldview that is transcendent, but not apathetic (Heard 1937; Huxley 1944; Ajaya 1983; Suzuki 1997)?

As a start, we must come to view much of behavior now labeled “neurotic” not as pathological, but as the organism’s natural response to developmental stress on the path to maturation. From this perspective, “neurosis” is better seen as developmental challenge—the surmounting of which brings maturity, or wisdom—rather than as pathology.

The medical diagnosis of neurosis, as generally applied, is not accurate or helpful. In fact, one of the most negative influences on mental health is the “sick” concept itself, which tightens and distorts, keeping us from a natural unfolding and realignment. Big-picture understanding, active listening, and fundamental positive regard work much better.

In essence, we need to have true biochemical behavioral disorders, such as obsessive-compulsive disorder and schizophrenia, treated by psychiatrists (doctors who can prescribe medical, nowadays usually pharmacological, treatment) and return the clinical practice of psychology to the unfolding of the psyche, in all its beauty and complexity.

With the exception of biologically based illness, psychology must come to be seen as the science of spiritual maturity. We call people “neurotic,” when in reality, it is not a medical illness they are suffering from, but spiritual immaturity. We must redefine spirituality, too, not as supernatural, but simply as the natural unfolding of the wise, mature end of the normative template for human developmental psychology. From this perspective, then, “healing” can take place only when we get beneath our modern imago to rest at the ground of our being and so to naturally unfold according to our perfect, internal template for development.

We in the West are coming around, full-circle, to a “neo-animistic” worldview. Tribal cultures exist in a world seen not only as alive, but also as spiritual in essence, by nature. The Universe, and us within it, are seen as magical, but not supernatural. The postmodern Western view that integrates mind, body, and spirit, both reflects and distills the tribal worldview (McKenna 1992; Shel Drake 1992; Wilber 2000).

While we want to benefit from the tribal perspective, we must not idealize it. Both the tribal and postmodern worldviews share a unitary philosophy, yet they are distinguished by more than simply differing degrees of organization and technology. There is a difference between the simple unitary view that the environment and self are all part of an underlying, unifying energy, and the more complex experiential unification and integration of previously disparate—sometimes diametrically opposite—elements of a greater whole (Ajaya 1983). The tribal perspective accommodates the material and the spiritual by never splitting the two in the first place—the material world as a fundamentally spiritual place. The postmodern perspective accommodates the material and the spiritual, already split by modernity, by reuniting them via a transcendence of their duality—an integral perspective, not just a unitary one.

Having identified ten methodological lessons learned and described their roots in tribal practice, the question emerges of how to implement these lessons into accepted public health policy and disseminate these findings into clinical practice and training. We will next review what research tells us about the process of translating research into policy and practice.

CHANGING POLICIES AND BUREAUCRACIES

The postmodern, integral, “neo-animist” perspective presented above both results in and requires the changing of society. It is one thing to point to the need to midwife a postmodern society; it is quite another to go through that labor (Beckhard 1975; Kennis and McTaggart 2000; Osborne and Gaebler 1992). Research and practice in the fields of research utilization, change management,

knowledge transfer, strategic planning, and the diffusion and implementation of innovations form both the basis and the bias for the analyses and suggestions outlined below (Havelock 1972a; Lawler et al. 1985; Holt 1987; U.S. Department of Health and Human Services 1992; Neilson 2001). The assumption here is that drug policy change is a matter of bureaucratic resistance as well as of law (Barrigar 1964; McGlothlin 1967; Weiss 1972); that the politics of drug policy quite often turn on public relations and public education (Stern 1966; Lefebvre 2001); and that the parsimony of effective practice has honed a set of tools that can be used to change psychedelic policy making, and thus clinical practice (Osborne and Gaebler 1992; Lefebvre 2001).

Simply put, the body of psychedelic research represents one of the most egregious examples extant of a failure to translate research findings into policy and practice. As such, a conscious effort to understand and influence the dynamics of the policy making process should improve the utilization of the results of psychedelic research. What follow then are some guidelines for “putting our money where our mouths are”—that is, for translating our insights on policy and practice into effective action and concrete change.

The Policy Change Process

Policy change is a process, running from initial *awareness* through *interest*, *evaluation*, and *trial* to ultimate *adoption* of a proposed policy innovation, and to change policy it is important to apply different levers at different points in this process (Havelock 1972b; Rich 1981; Paris and Reynolds 1983).

As a human process, policy change is strongly influenced by communication about the quality of the data, about the costs and benefits and value of the new policy to the people involved, and about larger strategic and market forces (Caplan 1977; Dalziel and Schoonover 1988; Blasiotti 1992; Paisley 1993). The process of policy change is not quite predictable, but it is malleable and therefore leveragable (Churchman 1968; Rothman 1974; Davenport 1993; Kotter 1996; Nutley et al. 2002). As such, we can enter into a policy change initiative with the recognition that the regulatory climate can be influenced through communication and that the success rate of policy change proposals can be improved (Beckhard 1975; Caplan 1977; Zaltman 1979; Duchnowski et al. 1989; Paisley 1993; Edwards and Gaventa 2001; Kennis and McTaggart 2000).

There is something new happening today in the policy research community. An interwoven set of tools for policy change, including advanced management and planning methodologies and technologies (Paisley 1993; Kotter 1996; Kennis and McTaggart 2000; Lefebvre 2001), as well as practical experience gained over the past fifty years of drug policy research and analysis, are coming to critical mass. These techniques, in turn, can enable new, technically oriented proponents of psychedelic research and therapy to influence public policy as never before (Duchnowski et al. 1989; Osborne and Gaebler 1992; Paisley 1993; Edwards 1994).

Today, these powerful new tools—as local as your laptop, as global as the Web—are enabling activists to lobby regulatory agencies more effectively. Moreover, the same technology that enables significant participation by local interest groups can also enable the decentralization of the public policy making process as a whole. In effect, decentralized technologies in hardware (e.g., PCs and laptops), software (e.g., groupware), Internet sites (e.g., MAPS.org, MoveOn.org, and even YouTube.com), and networking (especially wireless) have a reciprocal, decentralizing effect on policy making apparatus and process, ultimately fostering modularization and decentralization in the structure of bureaucratic power (Nelkin 1979; Blasiotti 1992; Kelly 1994; Kennis and McTaggart 2000; Harpignies 2004). This decentralization of bureaucratic structure matches the decentralized structure of society as a whole, facilitating further alignment of the policy making process with the community it is meant to serve.

Strategic Alignment

Strategic alignment is the fit of policy change strategy with key government priorities. The psychedelic community cannot have an agenda entirely of its own and expect to have impact on public policy. Even if it is a “good” agenda, such as, “implementing the results of state-of-the-art drug policy research,” if not aligned with the power vector of the policy community, it will likely fail (Weiss 1972). To be effective in this new, fast, distributed environment, we must align our drug strategy with the current momentum of government. For example, psychedelic psychotherapy research targeted on treating drug addiction or alcoholism will have a better chance of gaining support than a protocol targeted on “the benefits of recreational use.” (As is the case with another method of contention, *Tai Chi*, once we are aligned with the “opposition,” we can use its momentum to change its trajectory.)

Alignment ultimately becomes a question of which leads to greater success in changing policy—competition or partnership? It is basic social Darwinism—over time, partnership brings success to the most people and provides the most positive net outcome for the country over time (Nelkin 1979). Therefore, before we can change policy, we have to have policy change objectives that are aligned with the key priorities of senior government officials and commercial stakeholders.

Even so, it is not just alignment that will provide an opening for effective policy change, as much as the presence and advocacy of influential key actors involved in the policy-making process. You must be there when and where policy is being formed; it is very difficult to implement an armchair strategy for change (Argyris et al. 1985; Kotter 1996; Kennis and McTaggart 2000).

A note of caution, however, is in order: An uncritical emphasis on alignment with the priorities of the powerful can lead to co-optation and is less helpful than no alignment at all. In developing strategies for policy change, advocates find success by building relationships with government agencies and professional

groups. As relationships of trust develop, friendships and interdependencies emerge. This is natural, but potentially biasing and so again, care must be taken not to be co-opted by the opposition (Weiss 1972; Rich and Goldsmith 1983; Duchnowski et al. 1989; Strassman 1991; Edwards and Gaventa 2001; Harpignies 2004).

What is the most-effective role of the psychedelic community in changing the drug policy bureaucracy? Partnership. Given the skills required and power matrix involved, the only way for drug policy change advocates to be effective, *and* the only way for a government policy change effort to succeed, is through partnerships. How are we doing on this goal? Results have been mixed. While psychedelic professionals recognize political compromise as crucial to bureaucratic change, many are less than thrilled with the idea of aligning with a set of monolithic government agencies in the process. Nonetheless, while policy change projects generally *are* run by regulatory agencies and executive or legislative committees, the public interest is so fundamental a consideration in changing drug policy that change agents and advocacy groups inevitably also play a large role (Duchnowski et al. 1989; Edwards and Gaventa 2001).

Psychedelic advocacy groups would seem a natural choice as partners (with supporters of psychedelic research and practice among staff in regulatory agencies and legislatures) in a policy change effort (Duchnowski et al. 1989; Edwards and Gaventa 2001). Over the years, effective advocacy groups have honed the skills required for successful policy change efforts: collaborative focus, process analysis and system design skills, change-management savvy, and team work. (The Multidisciplinary Association for Psychedelic Studies and the Council on Spiritual Practices are case studies in partnership with sometimes opposing or recalcitrant institutional “partners.”) Interestingly, one role model for psychedelic advocacy groups is conservative religious groups, which have become enormously influential in recent years, in large part due to their leveraging of marketing and media tools.

Levers of Change

When the advocacy group or change agent has the skill set, what resources should they access? Central among these are the change-management levers: *research, people, and context*. Each one is necessary, but none is sufficient on its own to ensure change. The research data must be valid and reliable (Caplan 1977; Glaser et al. 1983; Nutley et al. 2002), but must also be relevant to the needs of key actors in various constituency groups (Blasiotti 1992; Lefebvre 2001). In addition, the larger political, economic and cultural forces that make up the strategic context in which the government bureaucracy operates must all be addressed (Barrigar 1964; Beckhard 1975; Caplan 1977; Osborne and Gaebler 1992; Henderson and Glass 1994). Paying attention to these three interdependent variables—research, people, and context—can improve the odds of a successful bureaucratic or policy change effort (Caplan 1977; Rich and Goldsmith 1983).

THE RESEARCH DATA

The quality of the research design and resultant data gathered is the necessary foundation of success in the dissemination and application of policy research, including efforts at data-based organizational change. If the research data are not valid and reliable, no subsequent efforts at implementation and change will, or should, succeed. Good research data come in many varieties, however, including biochemical analysis of blood and medical imaging of psychedelic subjects under varying conditions, clinical observations by experimenters, content analysis of subject accounts or of creative output such as artwork, questionnaires and surveys assessing attitudes and opinions of subjects and the public, and demographic analysis of population data (Schatzman and Strauss 1973; Selltitz et al. 1976; Oskamp 1977). Each of these types of data has its own preferred methods of analysis, from the statistical to the qualitative, and criteria for significance (Paris and Reynolds 1983). While quantitative data enable precise analysis, more qualitative forms of data provide breadth and context that can substantially improve the validity of our inferences, our logic, and our generalizations from the data (Bogdan and Taylor 1975).

THE PEOPLE IN THE ORGANIZATION

Even though a relevant, data-based proposal for change in a policy or bureaucracy is the necessary starting point, facts are by no means sufficient to ensure change. Due to human anxiety over change or loss of power, resistance is to be expected. Without organizational support, even a policy proposal based on valid and reliable research data is unlikely to be implemented (Snow 1959; Kotter 1996).

There are two sets of people levers because in most organizational settings there are two influential interest groups. One group comprises the “decision makers”—the agency heads, key legislators, lobbyists, and top pharmaceutical industry executives, for example—who, after study, advice, and arm-twisting, will be the ones to develop the consensus on whether to introduce a new drug policy to the nation, or even to revamp the drug policy-making apparatus. Yet decisions made by fiat from “on high” in a bureaucracy have a very poor track record of successful implementation. This is due to the second interest group—the “implementers”—who actually craft and implement the new policies. While the president can always say, “We’re going to do it!” the “policy wonks” and bureaucratic rank-and-file of each interest group can still dramatically alter or even kill a project, if they are not on board. To improve the likelihood of change, the needs of both of these interest groups must be addressed (Blasiotti 1992).

Decision makers and implementers tend to be motivated by different issues (Weiss 1972). In large corporations, such as pharmaceutical firms, decision

makers tend to be motivated by quantifiable proof that the product will perform safely and effectively and that it will find a market. Staff implementers, on the other hand, tend to be motivated more by the effect of any resultant changes in procedure on their span of control and work load. Both groups want assurance that a decision to support psychedelic research and practice will not “blow up in their face” politically, compromising their careers.

In order to avoid irrelevance in the eyes of decision makers and the “not-invented-here” syndrome among staff, each interest group’s unique priorities must be addressed. In fostering policy change among staff, we must safeguard a sense of ownership by sharing decision making authority and building trust relationships. In fostering policy change among top decision makers, we must manage decision maker concerns about safety, efficacy, and economic viability. We must provide political “air cover” for both groups through the liberal application of hard data and a flexible, strategic perspective on real politics (which we will discuss next) (Caplan 1977; Zaltman 1979; Blasiotti 1992).

THE STRATEGIC CONTEXT

Even with valid and reliable policy research data in hand, attending to interest group issues is a necessary, but still insufficient, condition to effect data-based policy innovation and bureaucratic change. The third and final lever of policy change is the *strategic context*—the political, cultural, and economic “big picture” issues that constrain or facilitate change (Snow 1959; Barrigar 1964; Churchman 1968; Weiss 1972; Beckhard 1975; Rich and Goldsmith 1983; Edwards and Gaventa 2001; Harpignies 2004; Center for Cognitive Liberty and Ethics 2006). These are issues of market trends for products based on psychedelics, the political climate, the economy, and community and public-relations concerns, all of which can derail an innovative policy, if not addressed.

It is only when all three of these levers of change—*research, people, and context*—have been considered that we have both the necessary and the sufficient conditions to facilitate data-based change in policy and bureaucracy.

WANTED: AN INTEGRAL SCIENCE—A “POETRY” SCIENCE

Understanding the change process, aligning with policy priorities, and skillfully using all available levers of change are all essential if we are to influence policies and bureaucracies. Even so, without changing our worldview—and so our personal values and priorities—we will be unsuccessful in effecting change in the outside world. We conclude with a description of the new worldview necessary, if we are to adopt, implement, and disseminate new policy on psychedelic psychotherapy.

Unity “Versus” the Frontal Lobes

It was a devil’s bargain: thought, ideation, intent, objectification, ego, and the finger-eye-frontal lobe complex. A devil’s bargain, yes, but supremely adaptive, as we now dominate nature and occupy every corner of the globe. This was the fruit of the tree of knowledge of good and evil: the first division, into light versus darkness, soul versus body, energy versus matter, humans versus nature—enabling discrimination, analysis, conflict, extraction, and distillation.

It is an old story by now, how life started out natural-yet-brutish and how we evolved adaptations to help us survive. The story continues today, as the very traits and brain functions that enabled us to excel thus far are now proving counter-adaptive in the form of pollution, extinctions, cancer, obesity, overcrowding, competition and egocentrism, addiction to money and material possessions, mechanization, and social alienation (Quinn 1992; Suzuki 1997).

So how do we heal that rift, transcend the duality between brutish nature and alienated modernity? How do we maintain the benefits of dualism—discrimination, analysis, improved adaptability—and yet transcend the struggle of dualism, to be just one, in our lives, in nature, in the Universe?

We must power-through today’s modern alienation from nature, all the way up and around the spiral of human development to an integral, postmodern worldview, not slide back down to a premodern state, as Kaczynski (the man called “The Unabomber”) and bin Laden would have it. The postmodern position is in alignment with the animist tradition, but a full-circle and “one level up” on the spiral of development. The idea is to embrace a “neo-animism,” but this time with our eyes open, fully conscious, Buddhist-style, for a postmodern integration of animism and higher awareness (Ellwood 1994). This then, finally, is a worldview that can accommodate shamanic states and quantum mechanics in one truly natural science (Wilson 1998; Hollick 2006).

When we finally bind the rift between matter and energy, brain and mind, body and spirit, particle and wave, what will our science be like? Our psychotherapies? Our religions? Moreover, what can we do today to help society in that maturation? For one, we as individuals must develop beyond the simplistic dualities of brain chemistry “versus” spirituality, tribal “versus” modern, monotheists “versus” animists, or self “versus” the outside world. We can accomplish this unification—and prepare for the postmodern worldview—by integrating the tribal worldview into our own (Wilber 2000).

An Integral, “Neo-Tribal” Approach to Reality

Every worldview contains the seeds of its own eventual dethroning, contradictions that will be explained only by the next, superseding worldview. Today, it is postmodernism supplanting modernity—the dualism of Descartes being replaced by a worldview that accommodates and integrates opposites: of technology and art, self and other, spirit and flesh. We might refer to this integral

approach as a “poetry science”—not the science of poetry, or poetry about science, but a poetical, higher-order worldview that positions modern, industrial, extractive science in a broader, undergirding context of cosmology, creativity, spirituality, and community.

When we think of the cosmic level of the Universe as a whole, counterintuitive, non-Newtonian concepts such as the Big Bang or a finite-yet-boundless Universe are now accepted as normal. Likewise, at the subatomic level of quantum mechanics, we accept counterintuitive behavior (such as matter springing into existence, or particles communicating instantly over great distances) as the new “normal.” Despite this wonderful insight on nature at the extremes of the subatomic and the cosmic, we still insist that at the human scale, reality is linear, logical, predictable, and mechanistic.

A postmodern science that can theorize alternate universes can (and must) also accommodate alternate phenomenologies. How do states of mind differ from the action of neurotransmitters—and how do both differ from “spirituality?” A postmodern science must be able to accommodate counterintuitive human-scale topics such as psychosomatics, placebo, peak spiritual experience, ESP, spontaneous remission, stigmata. It is in a “poetry science” that we can see that, even at the human scale, reality is not fundamentally Newtonian. This integral perspective on the human scale only seems counterintuitive when viewed from the Newtonian perspective and is better explained by eastern philosophies, such as yoga and Buddhism—human-scale philosophies that are more consistent with the perspectives of quantum mechanics and cosmology (Ellwood 1994; Horgan 2003).

This perspective is based on a nondual, natural philosophy that sees the universe at times as counterintuitive, but never supernatural. We must also apply that idea to viewing the mind: nothing supernatural, just complex and holistic and so exhibiting emergent properties, such as intelligence and self-awareness. The same argument can be applied to the universe as a whole: it is gestalt and emergent—so what some refer to as “miraculous” is still fully natural. Therefore, the seemingly miraculous or supernatural is just the nature of the universe itself—the whole-is-greater-than-the-sum-of-the-parts gestalt effect in full operation (Murphy 1992).

This is a holistic, “spiritual” perspective, but also a scientific one. The postmodern worldview must successfully pass through both spiritual and scientific sieves to find convergent validity. This requires a holistic approach high enough in perspective to recontextualize, and with broad enough inclusiveness to embrace, the range of what we have been referring to as the “spiritual” (Heard 1937; Bateson 1987; Sheldrake 1992).

Many thinkers describe the Universe as fundamentally alive, with mind as an emergent property of that complexity (Teilhard de Chardin 1959; Bateson 1987). A poetry science sees global mind as an emergent property of life on Earth, spirituality as “simply” the fully blossomed end point of normal human development, and the planet as a Gaian organism (Lovelock

1979)—and sees all this not as supernatural, but simply as the normal state of nature.

CONCLUSIONS

In this chapter, we have discussed some of the promising, strongly suggestive data in the clinical literature on psychedelics. Many people have been helped dramatically by psychedelic psychotherapy—the dying, substance abusers, those in need of psychospiritual development, and others. Yet there have been many important methodological flaws in the research over the years. For example, there has been a dearth of control groups and in many cases the uneven application of care and attention has contaminated our ability to draw inferences from the data. Even so, the field has learned much, and current protocols respond to the methodological issues quite well. A good example of improved contemporary methodology may be found in the impeccable design of Griffiths' recent study of psilocybin's ability to generate mystical-type experiences, which caused even skeptical, long-time drug warriors to praise the design as well as the findings (Griffiths et al. 2006).

Beyond the issue of clinical applications of psychedelics research, there are also enormous issues of personal freedom at stake. Beyond the concerns of researchers, clinicians, and the clergy who may eventually be able to use these substances, these are also personal issues having to do with the ability of individuals to freely experience rites of passage. As discussed above, there are tribal roots to these policy issues. Humans seem to have the need and propensity to go through rites of passage: a deconstruction of our current personalities, followed by—with the guidance and the help of our communities—a reconstruction of personality at a new level, from child to adult, or from adult to married person, as it may be.

These needs are still with us. The rave phenomenon is the best contemporary example. Young people are recreating tribal rites of passage, but without explicit, available community support and without knowledge of the hard-won safety and efficacy guidelines that evolved over thousands of years. This is an issue of personal freedom and personal-development that can have a pivotal impact on our internal freedoms, for example, to pursue unpopular meditative traditions (Center for Cognitive Liberty and Ethics 2006). (It is encouraging to note that in a February 2006 U.S. Supreme Court ruling, the UDV church won the right to use Ayahuasca in the United States. See Groisman and de Rois, Chapter 14, Volume 1.)

We need an integral policy on psychedelics to match our emergent integral worldview. We need

- A rational, objective, systematic policy-making process;
- A less-restrictive rescheduling of psychedelics; and
- Government funding for approved clinical psychedelic research.

It is crucially important that challenging, new psychopharmacological research be approved and funded. How are we going to develop new drugs if we do not enable the psychopharmacologists to conduct their research, including the appropriate application of self-experimentation? To fulfill our responsibility as citizens most effectively, we need to follow where the scientific research takes us, bounded by our humanity, regardless of the political environment. In the current, torturous environment for psychedelic research (Strassman 1991), we are only partially functional: we are seeing many psychedelic research protocols gain government approval, but few protocols receive funds from that same government.

Yet there is nothing more American than psychedelics, for this is a policy issue that has everything to do with individual freedom, religious freedom, and with personal betterment. As a catalyst for debate on topics such as scientific and individual freedom versus government control, psychedelics evoke “life, liberty and the pursuit of happiness” at its most fundamental, along with a strong dollop of “truth, justice and the American way” mixed in as well!

Furthermore, there is nothing more democratic than good policy research in service of the greater good (Nelkin 1979). With all the information that is readily available to us now, especially with the widespread adoption of the Internet over the last ten years, it is inevitable that information about the clinical use of psychedelics will continue to diffuse out to the public and that applications with valid results will ultimately be adopted.

A new perspective does seem to be emerging today in public policy on psychedelic research and practice. If policies and bureaucracies are changing, it may be directly attributable to the suite of internetworked, intelligent, decentralizing technologies that are now reaching critical mass. These new technologies are an engine that can enable government to realize the most radical promises of the policy making process and, in concert with modern policy change techniques, can finally provide the psychedelic community with a vehicle to drive its transformation of public policy. These changes will not come easily, but the modular, virtual government *is* coming—because it can empower people and because it makes economic sense.

Psychedelic researchers and advocates are in a unique historical position to play a “wedge” or leading-edge role in realigning, redefining, and ultimately changing the entire policy-making process. There is now a pivotal opportunity for the psychedelic issue to influence new government policy and, through fact-based change processes, ultimately open our society to a range of integral, transformative values and public policies (Ellwood 1994).

Bravery has played an enormous role over the history of psychedelic research. Many of the researchers we have discussed have displayed great courage in dealing with psychedelics, in their personal as well as in their professional lives. Undoubtedly, there will be a continued need for political bravery, as we are all obliged as citizens to take the actions necessary to move forward this process of rational, evidence-based decision making and change (Nutley et al. 2002).

We all want to forge a broader, more parsimonious and inclusive view of reality—one that is discriminating among ideas, flexible to change, reasoned in assessment, and systematic in perspective. Our ultimate goal is a more curious, open, accepting intentionality toward the future—and the present moment—of our development.

NOTES

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1. I am here defining “tribal” in broad terms as a human society that is more organized than small, fast-moving Paleolithic units, but less organized than the towns and hierarchical city-states that emerged later.

2. I am defining “postmodern” broadly, as the fourth of four successive worldviews. The first is tribalism, with an animistic view of a living, symbolic environment. The next world view is mythological and agricultural, dominance and hierarchy-oriented. The third world view, modernity, applies a mechanistic model of an inanimate, “billiard-ball” environment, populated by individual people and objects. The most-recent world view, postmodernism, reanimates the world, but having been through modernity, does so without the use of symbolic gods and spirits, fully cognizant of the mechanistic substrate. This holistic integration of the mechanistic and the animistic—and transcendence of the dualism of their opposition—characterizes the postmodern world view as we define it for the purposes of this chapter. Another term for this broad approach accommodating both the deterministic and the incommensurate is “integral” and at times I use that term in place of “postmodern.”

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