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The Heretic

by Tim Doody

For decades, the U.S. government banned medical studies of the effects of LSD. But for one longtime, elite researcher, the promise of mind-blowing revelations was just too tempting.

At 9:30 in the morning, an architect and three senior scientists—two from Stanford, the other from Hewlett-Packard—donned eyeshades and earphones, sank into comfy couches, and waited for their government-approved dose of LSD to kick in. From across the suite and with no small amount of anticipation, Dr. James Fadiman spun the knobs of an impeccable sound system and unleashed Beethoven’s “Symphony No. 6 in F Major, Op. 68.” Then he stood by, ready to ease any concerns or discomfort.

For this particular experiment, the couched volunteers had each brought along three highly technical problems from their respective fields that they’d been unable to solve for at least several months. In approximately two hours, when the LSD became fully active, they were going to remove the eyeshades and earphones, and attempt to find some solutions. Fadiman and his team would monitor their efforts, insights, and output to determine if a relatively low dose of acid—100 micrograms to be exact—enhanced their creativity.

It was the summer of ’66. And the morning was beginning like many others at the International Foundation for Advanced Study, an inconspicuously named, privately funded facility dedicated to psychedelic drug research, which was located, even less conspicuously, on the second floor of a shopping plaza in Menlo Park, Calif. However, this particular

morning wasn't going to go like so many others had during the preceding five years, when researchers at IFAS (pronounced "if-as") had legally dispensed LSD. Though Fadiman can't recall the exact date, this was the day, for him at least, that the music died. Or, perhaps more accurately for all parties involved in his creativity study, it was the day before.

At approximately 10 a.m., a courier delivered an express letter to the receptionist, who in turn quickly relayed it to Fadiman and the other researchers. They were to stop administering LSD, by order of the U.S. Food and Drug Administration. Effective immediately. Dozens of other private and university-affiliated institutions had received similar letters that day.

That research centers once were permitted to explore the further frontiers of consciousness seems surprising to those of us who came of age when a strongly enforced psychedelic prohibition was the norm. They seem not unlike the last generation of children's playgrounds, mostly eradicated during the '90s, that were higher and riskier than today's soft-plastic labyrinths. (Interestingly, a growing number of child psychologists now defend these playgrounds, saying they provided kids with both thrills and profound life lessons that simply can't be had close to the ground.)

When the FDA's edict arrived, Fadiman was 27 years old, IFAS's youngest researcher. He'd been a true believer in the gospel of psychedelics since 1961, when his old Harvard professor Richard Alpert (now Ram Dass) dosed him with psilocybin, the magic in the mushroom, at a Paris café. That day, his narrow, self-absorbed thinking had fallen away like old skin. People would live more harmoniously, he'd thought, if they could access this cosmic consciousness. Then and there he'd decided his calling would be to provide such access to others. He migrated to California (naturally) and teamed up with psychiatrists and seekers to explore how and if psychedelics in general—and LSD in particular—could safely augment psychotherapy, addiction treatment, creative endeavors, and spiritual growth. At Stanford University, he investigated this subject at length through a dissertation—which, of course, the government ban had just dead-ended.

Couldn't they comprehend what was at stake? Fadiman was devastated and more than a little indignant. However, even if he'd wanted to resist the FDA's moratorium on ideological grounds, practical matters made compliance impossible: Four people who'd never been on acid before were about to peak.

"I think we opened this tomorrow," he said to his colleagues.

And so one orchestra after the next wove increasingly visual melodies around the men on the couch. Then shortly before noon, as arranged, they emerged from their cocoons and got to work.

Over the course of the preceding year, IFAS researchers had dosed a total of 22 other men for the creativity study, including a theoretical mathematician, an electronics engineer, a furniture designer, and a commercial artist. By including only those whose jobs involved the hard sciences (the lack of a single female participant says much about mid-century career options for women), they sought to examine the effects of LSD on both visionary and analytical thinking. Such a group offered an additional bonus: Anything they produced during the study would be subsequently scrutinized by departmental chairs, zoning boards, review panels, corporate clients, and the like, thus providing a real-world, unbiased yardstick for their results.

In surveys administered shortly after their LSD-enhanced creativity sessions, the study volunteers, some of the best and brightest in their fields, sounded like tripped-out neopagans at a backwoods gathering. Their minds, they said, had blossomed and contracted with the universe. They'd beheld irregular but clean geometrical patterns glistening into infinity, felt a *rightness* before solutions manifested, and even shapeshifted into relevant formulas, concepts, and raw materials.

But here's the clincher. After their 5HT_{2A} neural receptors simmered down, they remained firm: LSD absolutely had helped them solve their complex, seemingly intractable problems. And the establishment agreed. The 26 men unleashed a slew of widely embraced innovations shortly after their LSD experiences, including a mathematical theorem for NOR gate circuits, a conceptual model of a photon, a linear electron accelerator beam-steering device, a new design for the vibratory microtome, a technical improvement of the magnetic tape recorder, blueprints for a private residency and an arts-and-crafts shopping plaza, and a space probe experiment designed to measure solar properties. Fadiman and his colleagues published these jaw-dropping results and closed shop.

At a congressional subcommittee hearing that year, Sen. Robert F. Kennedy grilled FDA regulators about their ban on LSD studies: "Why, if they were worthwhile six months ago, why aren't they worthwhile now?" For him, the ban was personal, too: His wife, Ethel, had received LSD-augmented therapy in Vancouver. "Perhaps to some extent we have lost sight of the fact that it"—Sen. Kennedy was referring specifically to LSD here—"can be very, very helpful in our society if used properly."

His objection did nothing to slow the panic that surged through halls of government. The state of California outlawed LSD in the fall of 1966, and was followed in quick succession by numerous other states and then the federal government. In 1970, agents of the Drug Enforcement Administration released a comprehensive database in which they'd sorted commonly known drugs into categories, or schedules. "Schedule 1" drugs, which included LSD and psilocybin, have a "significant potential for abuse," they said, and "no recognized medicinal value." Because Schedule 1 drugs were seen as the most dangerous of the bunch, those who used, manufactured, bought, possessed, or distributed them were thought to be deserving of the harshest penalties.

By waging war on psychedelics and their aficionados, the U.S. government not only halted promising studies but also effectively shoved open discourse of these substances to the countercultural margins. And so conventional wisdom continues to argue that psychedelics offer one of a few possibilities: a psychotic break, a glimpse of God, or a visually stunning but fairly mindless journey. But no way would they help with practical, results-based thinking. (That's what Ritalin is for, just ask any Ivy League undergrad.)

Still, intriguing hints suggest that, despite stigma and risk of incarceration, some of our better innovators continued to feed their heads—and society as a whole reaped the benefits. Francis Crick confessed that he was tripping the first time he envisioned the double helix. Steve Jobs called LSD "one of the two or three most important things" he'd experienced. And Bill Wilson claimed it helped to facilitate breakthroughs of a more soulful variety: Decades after co-founding Alcoholics Anonymous, he tried LSD, said it tuned him in to the same spiritual awareness that made sobriety possible, and pitched its therapeutic use—unsuccessfully—to the AA board. So perhaps the music never really died. Perhaps it's more accurate to say instead that the music got much softer. And the ones who were still listening had to pretend they couldn't hear anything at all.

On a Saturday last October, 45 years after dispensing those last legal doses, James Fadiman stood on stage inside the cavernous hall of Judson Memorial Church, a long-time downtown New York incubator of artistic, progressive, and even revolutionary movements. High above him on a window of stained glass, a golden band wrapped Escher-like enigmas around the Four Evangelists. Fadiman appeared far more earthly: wire frames, trim beard, dropped hairline, khakis, running shoes—like a policy wonk at a convention, right down to lanyard and nametag.

A couple hundred people sat before him in folding chairs and along the

side aisles of the hall. He adjusted his head microphone, then scrolled his lecture notes and side-stepped the podium. He felt fortunate to be there for many reasons, he said, including a health scare he'd had a few months back—a rather advanced case of pericarditis. “Some of you, I know, have experimented with enough substances so that you've ‘died.’ But it's different when you're in the ER.” He chuckled. “And you're not on anything.”

Most everybody laughed at his icebreaker, understood he was comparing, quite unfavorably, his recent experience to the way that, under the influence of high-dose psychedelics, one's personality has a tendency to scatter like stardust. Which is to say that Fadiman was not addressing an ordinary audience.

He was the first presenter of the day at the fifth-annual Horizons, a weekend-long forum organized to “open a fresh dialogue” regarding the role of psychedelics in “medicine, culture, history, spirituality, and creativity.” The crowd consisted of young and old, dreadlocks and suits, crushed velvet and institutional bonafides. A self-declared prophet sat near Bellevue Hospital's leading addictions specialist. Both are pro-psychedelics, though they differ on what qualifies as appropriate usage. Said addictions specialist is currently administering psilocybin to people with recurrent and advanced-stage cancer in—surprise!—a government-sanctioned study. Most people enrolled in his study have reported that a single psychedelic session substantially reduced their anxieties related to death, while also qualifying as one of their most spiritual experiences.

“I kind of did the squarest bio I could,” Fadiman said, pointing at a Horizons brochure, “just in case other people were reading it.” Who did he mean? Squares? Feds? He'd chosen to highlight his post-ban work, which sounded mildly interesting though fairly innocuous. Co-founder of the Institute for Transpersonal Psychology. Course instructor at San Francisco State, Brandeis, and Stanford. Writer. Member of various corporate boards. Don't be fooled though. His bio obscures a well-documented notoriety.

In *The Electric Kool-Aid Acid Test*, Tom Wolfe writes about encountering “a young psychologist,” “Clifton Fadiman's nephew, it turned out,” in the waiting room of the San Mateo County jail. Fadiman and his wife were “happily stuffing three I-Ching coins into some interminable dense volume of Oriental mysticism” that they planned to give Ken Kesey, the Prankster-in-Chief whom the FBI had just nabbed after eight months on the lam. Wolfe had been granted an interview with Kesey, and they wanted him to tell their friend about the hidden coins. During this difficult time, they explained, Kesey needed oracular advice.

Fadiman's influence transcends counterculture, though. It might even stretch through the very medium through which you're reading these words. In *What the Dormouse Said*, John Markoff reports that Fadiman had dosed and counseled numerous "heads" as they were attempting to amplify consciousness through silicon chips and virtual reality. The personal computer revolution, Markoff argues, flourished on the Left Coast precisely because of a peculiar confluence of scientists, dreamers, and drop-outs. And indeed, if you were to illustrate with a Venn diagram the relationships between those involved with Acid Test parties, the Homebrew Computer Club, the Augmented Human Intellect Research Center at Stanford University, Xerox's Palo Alto Research Center, various backwoods communes, and, of course, the IFAS research center, you'd see an overlap of communities on the San Francisco Midpeninsula that just wasn't available to the average IBM computer scientist in Westchester.

It's true that Fadiman cooled it for several decades, did those square things in his bio, settled into the suburbs, and kept on the down-low any lingering passion for chemically boosted consciousness. But then, in 2010, with the publication of his book, *The Psychedelic Explorer's Guide: Safe, Therapeutic, and Sacred Journeys*, it became official: At 70 years old, Fadiman had gone rogue. In a mild-mannered sort of way, yes, with charts, hypotheses, and a winning bedside manner. But government be damned, he was now an outspoken advocate for the careful but criminal use of psychedelics, especially LSD, his favorite.

What's astounding isn't so much that he came out of the psychedelic closet for a second time—most everyone retains a certain allegiance to their formative experiences—but that he is far from alone. And we're not just talking about the tens of thousands of utopians who co-create an ephemeral Mecca in the swirling sands of Black Rock each summer.

Though draconian laws still keep psychedelics from the general public, next-generation administrators at the FDA and DEA have been approving research studies again. The taboo broke with a 1992 investigation of how dimethyltryptamine, or DMT, a fast-acting psychedelic, impacts consciousness; DMT wasn't burdened by the cultural baggage of its three-lettered cousin. And what began quite haltingly had become, by the middle of the last decade, if not routine then certainly notable: Terminated research from the '60s was being replicated and even furthered in dozens of studies by big-name players, including Johns Hopkins, NYU, and UCLA. These studies, which almost exclusively explore the psychotherapeutic potential of psychedelics (as opposed to, say, how they might influence creativity), are getting results that would make a Big Pharma rep salivate. Of the hundreds of volunteers who've participated, a high majority have said that psychedelics, given in a safe, supportive

setting, helped them to, depending on the study, accept imminent mortality, overcome drug and alcohol addiction, mitigate obsessive-compulsive urges, or heal post-traumatic stress disorder.

Yet another study recently passed the approval process despite strong objections from the Pentagon: In the summer of 2011, 16 vets who returned from Iraq and Afghanistan with PTSD began receiving a combination of talk therapy and MDMA (pure Ecstasy). This, though the DEA still officially states that psychedelics' "use in psychotherapy largely has been debunked." The current relationship between regulators and these Schedule 1 substances is a tangle of impossible possibilities—not unlike the stained glass window overlooking Judson's stage.

"What happens in serious psychedelic work," Fadiman said to the people before him, "is there's a sudden reframing of massive amounts of worldview. We don't know much about what that learning means, but we sure can see the results." Though he applauds the aforementioned studies, he has come to Horizons specifically to speak on their limitations. In fact, his entire lecture is intended to be an attack on what he calls "the medical model," an approach to psychedelic drug use that curtails access to only a fraction of society, and for only narrowly defined goals centered around personal therapy.

Fadiman studied the people before him, then widened his eyes with faux innocence. "How many of you are going to be in a legal research study next year?"

No hands.

"Including not me. You not only have to be ill [to participate], but you have to be ill with something fairly awful. Now, how many of you are planning to have a psychedelic within the next year?"

An overwhelming majority of the audience raised a hand, some enthusiastic, others sheepish. Heads swiveled like periscopes, the better to see all those mea culpas.

"So, I'll talk to you."

Widespread laughter: score!

"For a long time after research stopped in the '60s, I thought, 'Oh, I can't

do the research that interests me the most, that's the most life-changing, that has the most potential.' I also realized that ... what the government said is, 'We are restricting some basic freedoms.'"

Throughout the lecture, his left hand poked like a conductor's stick as he challenged his listeners with a series of questions.

"Can you go to most any group, from tea parties on one end, to us, I think we're probably on the other, and say, Is religious freedom something that we support in this country?"

"Is it all right to establish or re-establish or discover a connection to the Divine?"

"Is it OK to do something that leads to your own self-healing and improves your connection to the natural world?"

"Is it OK to discover how the universe works? At the moment, we've got two Nobel Prize winners who've copped to the fact of where they got their ideas."

Francis Crick is one and the other: Kary Mullis, who was intermittently under the influence of LSD as he developed the polymerase chain reaction, a genetic sequencing technique through which scientists can detect certain infectious diseases, map the human genome, and trace ancestral heritage back thousands of years.

Fadiman was warming up now, standing tall for the 23 million Americans who, according to government stats, have already taken LSD, and the 400,000-plus who will try it for the first time this year. Curiosity continues to trump criminalization.

"We're not necessarily going to be content if certain psychedelics are available on prescription [for people who are really ill]," Fadiman said. "That's not what psychedelic freedom is about."

Just as he began to speculate on how and when "psychedelic freedom" might be achieved, the microphone slipped off his ear, shoulder-bounced, and tumbled to the floor. It sounded like gunshots or a door being bashed in. Fadiman threw up his hands, fingers splayed, head lowered, as if a SWAT team was raiding the auditorium. He had the audience laughing again as a sound tech scrambled to make things right. Nonetheless, his

slapstick evoked a sobering truth concerning the tenuous turf between personal and legal conviction. How many people here have ever been in an actual raid? Hands please?

The discovery of lysergic acid diethylamide, or LSD, is a fairly known tale, at least in certain circles. As war ravished Europe, Dr. Albert Hofmann hunkered down in his lab in Basel, Switzerland, and synthesized dozens of compounds from ergot, a grain-attacking fungus, in an effort to create a medicinal blood stimulator. In 1943, he accidentally (or, as he has claimed, synchronistically) absorbed a few potent drops from the 25th variety, soon thereafter experiencing a “not unpleasant intoxicated-like condition” that dramatically altered his bicycle ride home.

What’s less commonly known, even in certain circles, is what should or shouldn’t be done with this potent discovery, which Hofmann has referred to as “my problem child.” During a second, entirely intentional exposure, his problem child unleashed upon him a slew of hellish and terrifying visions, severely compromising both his short-term sanity and his ability to navigate the physical world.

Through his re-stabilized head microphone, Fadiman was focusing on exactly these sorts of dangers: He’d transitioned from advocacy to shop talk. “Have you ever had a bad trip?” he asked the audience. “Hands please. That’s quite a few. Do you know why it was a bad trip? Unfortunately, less hands.”

Of his own hands: The right clutched lecture notes, while the left danced. “OK, you aren’t going to be involved in research studies. But in your personal lives you are going to be looking at”—left ascending three invisible steps—“yourself, science, and the Divine. And so it’s important to know, what is necessary for the safest, most successful, and potentially sacred experience?” Palm upward. “The answer is, very simply, six items.” And then down to the podium.

These six items are, perhaps simply enough, factors that Fadiman believes determine the quality of a psychedelic experience, as well as its specific nature. He has culled them from his work with hundreds of people in therapy sessions, creativity experiments, and Death Valley vision quests. They are:

1. Set: the mental attitude of a would-be psychedelic voyager
2. Setting: the surroundings in which a psychedelic substance is ingested
3. Guide: a person experienced with non-ordinary states of consciousness

- who helps to mitigate challenges and channel insights
4. Substance: the type and quantity of psychedelic agent
 5. Session: the entirety of a psychedelic trip, including all activities or rituals
 6. Situation: the environment, people, and culture from which a person comes to a session and returns afterward

Regardless of whether they use Fadiman's preferred terminology, medical researchers conducting government-approved therapeutic studies look for these same essential parameters, as do shamans and tribal elders across the globe. These diverse facilitators of psychedelic experiences carefully screen applicants to ensure they are of sound(-enough) mind and prime them on the benefits that a session can offer, thereby helping to focus intentions, establish positive expectations, and dramatically increase the odds of a favorable outcome.

Sessions typically occur in a comfortable, often enchanting, environment—say, a star-shaped temple in the Brazilian Amazon or a cushy, made-over hospital room at NYU's dental school. And in these settings, therapists, shamans, and researchers follow a certain protocol, comprised of time-tested, peer-reviewed rituals that have been shown to most effectively channel revelatory and even, as Fadiman would have it, sacred, experiences. A psychedelic voyager may be guided with singing and drumming, or with prerecorded non-lyrical music, eyeshades, and photographs of loved ones, or with suggestions, observations, and questions, and, sometimes, later in the session, as the potency of a substance wanes, with forays into particularly choice habitat. Afterwards, the voyager is welcomed back and assisted with integrating into her situation any learning, insights, and mystical flashes that may have occurred.

Those least likely to account for these six factors are typically people with less stable personalities, which is to say, youth. Which is to say, most of us who found ourselves with LSD on our tongues for the first time in a friend's basement, at a jumping party, or on the untamed outskirts of sprawl. The mind might be entirely unprepared, the dosage too much, the setting and lack of effective support quite dangerous.

"I think guides are wonderful," Fadiman said, "which often gets me dismissed as a radical conservative—a kind of fun thing to be in this crowd. But look, you don't go to the airport and say, 'I want to fly a plane.' And a pilot says, 'Here's the keys, pick one of those, and give it a shot.'"

He has a point. After all, even the most positive LSD experiences often involve disturbing visions and moments of paranoia. Most of us still

managed to do OK during our first time, maybe even were steered toward an epiphany. But some of us didn't. Some of us crash-landed and injured ourselves or others, or were overpowered by unresolved subconscious conflicts, or, in extremely rare cases, unleashed a latent psychosis. Over the last 50 years, more than a few were locked up in a correctional facility of one kind or another and injected with Thorazine, which, unfortunately, has a way of transforming a drug-induced freakout into life-long affliction. (Xanax is a far better option.) Acid casualties from the 1960s still haunt Telegraph Avenue like ghosts with unsettled scores.

When Fadiman sat down to write his book, he had at first been attempting to write a memoir; after an early draft, he decided he was doing too much navel-gazing and shifted his style and content to create *The Psychedelic Explorer's Guide*, which reads a good deal like a how-to-manual. Still, he didn't entirely suppress his initial urge to tell portions of his own tale, and why should he? Even as he conducted government-sanctioned research, he was cavorting with mystics, poets, outlaws, and a pistol-packing man who transnationally distributed LSD, regularly communicated with U.S. intelligence agencies, and pioneered procedures for psychedelic sessions that highly regarded medical facilities still use today.

In one anecdote that made the cut, he recounts a night spent with Ken Kesey on a feral embankment between the shoreline and the town dump of sleepy Pescadero, Calif. Peaking on a relatively high dose of LSD shortly before dawn, Dorothy, one of Ken's girlfriends, lay down in the dirt to better observe one particular wild violet. Stardust waltzed off its purple petals into the embankment, the ocean, even the dump. Stranger still, the violet budded, blossomed, withered, and died, both forward in time and in reverse.

When Dorothy tried to explain it all to James, he didn't scoff. Instead he got down beside her and, utilizing insights he'd developed as an IFAS guide, urged her deeper into the experience. Dorothy became aware that stardust was also coursing through her neural network. The universe wasn't random chance, she thought that morning, but ebullient choice. She didn't need to go anywhere because she was everywhere.

If you ask her today, she'll tell you the effects from her trip lasted long after she came down. For starters, she'd say, this was the pivotal moment that led her to become a filmmaker. (Her short documentaries have earned numerous accolades, including an Emmy, an Oscar nomination, and the Corporation for Public Broadcasting Gold Medal.) But, she'd add, that's not all. That morning, she ditched Hunky Ken for Interstellar James, and for 47 years and counting, they've lived together in an open marriage.

What happened to Dorothy Fadiman that morning? How about Francis Crick and the people with cancer in the anxiety studies? Staunch materialists might argue that exogenous, psychotropic molecules had simply transformed their three pounds of gelatinous gray head muscle into funhouses for a few hours. But Ms. Fadiman, Crick, and most study volunteers say something quite different—that the psychedelics they ingested acted as a sort of antenna, allowing them to receive rather profound transmissions that they couldn't typically access during their ordinary states of consciousness. Such a claim is not without precedent.

Ever since people first altered their surroundings with celestially aligned rocks, they've also been altering their inner landscapes. Though Albert Hofmann's recipe is entirely modern, tribes and other pre-industrial societies from Australia to Mesopotamia have long been mixing the medicine into brews, snuffs, and powders. In rituals, often of a collective nature, they've ingested these substances and then sung, drummed, and channeled to access insights, archetypal beings, and alternate realities. While these societies are as eclectic as orchids, they share at least one characteristic: Their rituals have served as an axis mundi, a psychic compass that simultaneously situates and provides direction to both individual and community. As a result, matter and consciousness are experienced as entwined, purposeful, and sacred.

On stage and page, Fadiman has argued that, in marked contrast, most members of post-industrial societies perceive themselves as happenstance cogs in a clockwork universe, and consequently, exhibit a profound and increasingly dangerous alienation. The dissociation of self is so fundamental that bioregions are sub-divided into tract housing, resources into quarterly earnings, and people into one-percenters and the rest. For Fadiman at least, even traditional Western therapy, which seeks to re-align a sick individual to this worldview, must necessarily end in a cul-de-sac.

Marlene Dobkin de Rios, a medical anthropologist, has argued that there is a strong correlation between centralized power and psychedelic prohibition as authoritarian leaders have perennially associated these substances with insurrectionary tendencies. Indeed, whether in 17th-century Europe or 19th-century America, even as proponents of church and state enclosed communal lands and subjugated the inhabitants therein, they especially targeted those deemed most resistant to ideological control—the shamans, witches, magi, occultists, and others who concocted, imbibed, and distributed psychedelic substances, and believed themselves to be in an ongoing discourse with land, non-human species, and spirits.

The !Kung (tongue-click then “kung”) is one of the psychedelically-

augmented, anarchistic societies that had survived these purges well into contemporary times. A nomadic people, they'd harmonized with the austere rhythms of the Kalahari Desert for thousands of years. Elizabeth Marshall Thomas, who lived with them during the 1950s, writes that the !Kung recognized an illness called "Star Sickness," which could overcome members of the community with a force not unlike gravity and cause profound disorientation. Unable to situate themselves in the cosmos in a meaningful way, the afflicted displayed jealousy, hostility, and a marked incapacity for gift-giving—the very symptoms that plague many Westerners, according to Fadiman (and, certainly, quite a few others).

To cure and prevent Star Sickness, the !Kung conducted all-night trance dances around a bonfire four times per month on average, often augmenting them with psychoactive plants including dagga (marijuana) and gaise noru noru (more than marijuana). As dancers sang, stomped, shook rattles, and spun, a boiling force called *n/um* collected in their abdomens and sometimes flowed out through their heads, causing them to soar over fantastical terrain. These grand vistas were said to provide the necessary perspective to re-align community members both to the stars and one other.

Surely, the !Kung's chosen mode of governance reflected these regularly-scheduled astral tune-ups. Until the 1970s, when apartheid-era colonizers irrevocably altered the flora, fauna, and flow of the Kalahari, the !Kung had organized through leaderless, consensus-based decision-making, coupled with a bawdy humor that infused even the most sacred moments to dispel tension and check the power-hungry. This sort of power-sharing sounds not dissimilar to what Occupy Wall Street protesters attempted last year with their General Assemblies and Spokes Councils. Perhaps both Occupiers and the !Kung have tapped something primordial: When researchers isolate heart cells on a Petri dish, the cells bounce to their own idiosyncratic rhythms. But placed beside one another, they self-organize into a collective beat.

The urge to connect with the numinous remains strong throughout the world, including the West—even as medical experts pathologize it, monotheistic bureaucrats neuter it, and Madison Avenue spellcasters exploit it. Of course psychoactive plants, fungi, and synthetics aren't the only way to sate this urge: Sufis spin, musicians riff, and physicists formulate. And sometimes psychedelics just get in the way, according to religious scholar Huston Smith.

After surveying late-'60s counterculture, he warned that without the grounding of long-term spiritual practice, psychedelic drug use amounts to, at best, a "religion of religious experience," a series of mystical vows

decontextualized from personal and community health.

Notably, though, the plant teachers—as some shamans refer to vision-inducing flora—have been perceived by what probably amounts to a majority of human societies as a legitimate and particularly effective portal into the fabric and meaning of reality. Michael Pollan popularized what ethnobotanists have been saying for some time with his 2001 book, *The Botany of Desire*: Plants and people have been involved in a symbiotic relationship for millennia. They entice our noses, bellies, and brains; we nurture their terrain. It's a fairly open secret that not only does the Amazon contain the necessary ingredients for ayahuasca, one of the strongest and oldest psychedelic brews, but that the forest itself isn't so much a wilderness as a 10,000-year-old garden under indigenous management.

By comparison, Americans commonly perceive the wild violet as a noxious weed—though it's a rich source of Vitamins A and C, as well as antimicrobial and anti-HIV agents. The wild violet is quite hardy, too, which is why Dorothy Fadiman's prized flower was able to flourish near the Pescadero dump, the ass-end of civilization. But for homeowners intent on turning their parcel of property into a monochromatic green sheet, that simply means repeated applications of a particularly strong herbicide along with, as one website advises, "persistence." Such an approach to land use, which views private property as so inviolable and autonomous that it's above even the laws of nature, surely reflects how many Americans perceive not only their surroundings but also themselves. You've heard the one about the rugged, entirely self-made individual?

Albert Einstein, who navigated the twilight turf between consciousness and matter for much of his life, argued that "Man" suffers from an "optical delusion of consciousness" as he "experiences himself, his thoughts and feelings as something separated from the rest." His cure? Get some *n/um*. "The most beautiful thing we can experience is the mysterious," he said. "It is the source of all true art and science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: His eyes are closed."

Though scientists are more typically seen as killers of myth, not its creators, Einstein and many of his more visionary contemporaries sound as trippy as any of yesterday's mystics. They say that the time-space continuum warps like the surface of a trampoline. They say that we are stardust. That there is no "in the beginning." That things are not things at all, but relations. That the observer tweaks the observed, at least on a sub-atomic level, just by observing.

Who knows, their latest findings may one day affirm some ancient hypotheses. If reality isn't shaped with the psychically aware, self-organizing units that Giordano Bruno called monads in the sixteenth century, then perhaps it's woven with Indra's net, the jeweled nodes of which stretch into infinity, each one a reflection of all others. To entertain such ontologies is to re-contextualize one's self as a marvelous conduit in a timeless whole, through which molecules and meaning flow, from nebulae to neurons and back again. If certain of these molecules connect with our serotonin receptors like a key in a pin tumbler, and open a door to extraordinary vistas, why shouldn't we peek?

Fadiman had another question for the audience: "How many of you have heard about micro-dosing?" He adjusted his bifocals to a groovy sight: two-dozen uplifted hands. "Whoa!"

Despite the 45-year government ban, Fadiman had never stopped longing to tinker with LSD, to catalogue what we might be capable of with this byproduct of mold. Of all the possible forays into this psychic terra incognita, he was most eager to explore micro-dosing—specifically its long-term effects. And he didn't have another 45 years for the feds to get hip to the plan.

Fadiman claims the "normal range" of an LSD dose varies, based on whether one is seeking a recreational experience (50 mcg), creative boost (100 mcg), therapeutic session (100-250 mcg) or face-to-face with "the Divine" (400 mcg). But, he cautions, a higher dose is a riskier dose.

First things first: Fadiman defines a micro-dose as 10 micrograms of LSD (or one-fifth the usual dose of mushrooms). Because he cannot set up perfect lab conditions due to the likelihood of criminal prosecution, he has instead crafted a study in which volunteers self-administer and self-report. Which means that they must acquire their own supply of the Schedule 1 drug and separate a standard hit of 50 to 100 micrograms into micro-doses. (Hint: LSD is entirely water-soluble.)

Beginning in 2010, an unspecified but growing number of volunteers have taken a micro-dose every third day, while conducting their typical daily routines and maintaining logbooks of their observations. Study enrollment may last for several weeks or longer: There doesn't appear to be a brightly

drawn finish line. After several weeks (or, um...), participants send their logbooks to an email address on Fadiman's personal website, preferably accompanied by a summary of their overall impressions.

"Micro-dosing turns out to be a totally different world," Fadiman extolled. "As someone said, the rocks don't glow, even a little bit. But what many people are reporting is, at the end of the day, they say, 'That was a really good day.' You know, that kind of day when things kind of work. You're doing a task you normally couldn't stand for two hours, but you do it for three or four. You eat properly. Maybe you do one more set of reps. Just a good day. That seems to be what we're discovering."

Elsewhere Fadiman has been more specific about the logbooks he's received. One physician reported that micro-dosing got him "in touch with a deep place of ease and beauty." A vocalist said she could better hear and channel music. In general, study participants functioned normally in their work and relationships, Fadiman has said, but with increased focus, creativity, and emotional clarity. Until he releases his data archive in a comprehensive manner, it is, of course, not possible to scrutinize the validity of his claim.

Perhaps the micro-dose study offers Fadiman the opportunity to follow the recommendation of a longtime, now-deceased friend, Albert Hofmann, who, according to Fadiman, called micro-dosing "the most under-researched area of psychedelics." Word on the street is that Hofmann had also surmised that micro-doses of LSD would be a viable market alternative to Ritalin. It's an intriguing claim. After all, if Fadiman had administered Ritalin to the scientists in his creativity study, they might have focused on their problems just as intently as they had on LSD, but they probably wouldn't have had as many breakthroughs. Even as Ritalin boosts attention, it has a tendency to create tunnel vision, which, more often than not, stymies imagination.

"I just got a report from someone who did this for six weeks," Fadiman said. "And his question to me was, 'Is there any reason to stop?'" More laughter throughout the hall, another adjustment of bifocals.

Is Fadiman reckless, irresponsible, a mad corrupter of youth? Most of today's politicians, law enforcement officials, cable news hosts, and medical practitioners—whom, collectively, Fadiman might refer to as "the establishment"—would undoubtedly level these charges and more against him if only they knew of his research. But these sorts of accusations have long been aimed at those who posit opinions so dissident that, if taken seriously, they threaten not just how society operates, but, perhaps more

fundamentally disturbing to both reigning authorities and the general public, how we perceive ourselves.

Regardless of whether heretics are visionaries, cranks, or people to whom both labels apply, if their ideas have a certain traction, the powers that be—aka establishments throughout the ages—attempt to silence them through exile, thumbscrews, the stake, incarceration, public ridicule, etc. Such tactics are terribly effective. Which is to say that most accused heretics suffer and are forgotten. But not always. Every once in a while, posthumously or otherwise, one of them topples a paradigm.

During an afternoon break, a handful of younger Horizons attendees—dressed, to greater and lesser effect, in daring colors and cuts—clumped together on the front stairs of Judson Church and worked through the logistics of micro-dosing. No scale required, they said. Paper blotter, Pez, whatever, just plop it in a water bottle, draw some ticks on the side. A little trial and error of course, but do mind the chlorine.

Occupy Wall Street protestors streamed by, sleep-deprived, scruffy, grinning, keffiyehs knotted around necks; several held aloft a golden bull, “FALSE IDOL” painted on its flanks. They were rallying across the street in Washington Square Park before attempting an evening takeover of Times Square, on this, the 29th day after sleeping bags were first planted in the Financial District. Heavily armored police surrounded them and covertly amassed on adjacent streets where the media cameras weren’t focused. “We are unstoppable!” a thousand Occupiers chanted. “Another world is possible!”

History has proven the fallibility of their first line. But as to their second? For starters, this other world depends on visioning at least as much as active resistance, and that’s where, historically, psychedelics come in. Long before the mathematicians and scientists in Fadiman’s creativity study utilized LSD to better envision formulas, materials, and the interstices between, traditional societies tripped to comprehend and commune with people, animals, plants, bioregions, and the spirits they felt moved through all things.

Which brings us to the next point: It’s not just one world that is possible, but many. The American Psychiatric Association could recognize Star Sick as a pathology. The U.S. government could tether progress to Gross National Happiness as is done in Bhutan, or follow the lead of Evo Morales, Bolivia’s first indigenous leader, and implement the Law of Mother Earth, so that “the balance of ecosystems and local inhabitant communities” are granted the legal right “to not be affected by mega-

infrastructure and development projects.” Many enlightening policies emanate from societies like the above, where non-ordinary states of consciousness are prized.

If these ideas seem far out to you, that’s precisely the problem. Or so thought Einstein. Capitalism, he argued, simultaneously creates a “huge community of producers” who are “unceasingly striving to deprive each other of the fruits of their collective labor” and an “oligarchy” that “cannot be effectively checked even by a democratically organized society.” He believes this subjugation is largely accomplished “not by force” but because “the privileged class” had long ago established a “system of values by which the people were thenceforth, to a large extent unconsciously, guided in their social behavior.”

In other words, cops don’t just hide on side streets—they sneak into heads, too. And so Mitt Romney, the Republican presidential hopeful, can declare with patrician matter-of-factness, “Corporations are people, my friend.” He’s absolutely correct, too, as far as U.S. law is concerned. Corporations have the rights that bioregions don’t. And they have far better legal representation than you.

We’re always evolving, one way or another, as we play for keeps on what William James called the “field of consciousness.” While countless questions remain as to the parameters of this field, one thing is certain. Fadiman and his far-flung colleagues have provided the means through which contemporary Westerners can visit areas once thought to be out-of-bounds, or accessible only to a select few, through divine grace, a near-death experience, or 10,000 hours of meditation. Under the right circumstances, these psychic dérives are far less dangerous than, say, a lunar landing, and may ultimately prove as rewarding, if not more so.

So then, why the hysteria?

It’s a question Fadiman asks and attempts to answer. “Why did our drug research frighten the establishment so profoundly? Why does it still frighten them?” he writes. “Perhaps because we were able to step off (or were tossed off) the treadmill of daily stuff and saw the whole system of life-death-life. We had discovered that love is the fundamental energy of the universe. And we wouldn’t shut up about it.”

At first glance (and maybe second and third), his answer may sound maddeningly, well, Californian. But that doesn’t mean he’s not onto something. After all, to experience self and surroundings as entwined and enchanted, which those engaged in a guided psychedelic session have a

statistically significant chance of doing, is to extend the very definition of self outward, so that one is far more apt to behave like heart cells. Jesus is said to have overturned moneychangers' tables in the name of sacred turf. Just imagine what a critical mass of formerly upright citizens might do if they suddenly saw the whole earth as a temple. "No wonder," Fadiman writes, "enlightenment is always a crime."

Recommend

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Tim Doody is a New York City-based writer. *Nightline* once included him in a list of "particularly troublesome, even dangerous, anarchists." He's online at timdoody.me. More by Tim Doody

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