

How to Change Your Mind

What the new science of psychedelics teaches us... (a summary by Pat Evert)

- A New Door

Set is the mind-set or expectation one brings to the experience, and setting is the environment in which it takes place. Compared with other drugs, psychedelics seldom affect people the same way twice, because they tend to **magnify whatever's already going on** both inside and outside one's head. Carl Jung once wrote that it is not the young but people in middle age who need to have an "experience of the numinous" to help them negotiate the second half of their lives. Several experimenters said they had lost their fear of death completely. The reasons offered for this transformation were intriguing but also somewhat elusive. "Individuals transcend their primary identification with their bodies and **experience ego-free states**," one of the researchers was quoted as saying. They "return with a new perspective and profound acceptance." LSD appears to disable such conventionalized, shorthand modes of perception and, by doing so, restores a childlike immediacy, and sense of wonder, to our experience of reality, as if we were seeing **everything for the first time**. The study demonstrated that a high dose of psilocybin could be used to safely and reliably "occasion" a mystical experience—typically described as the dissolution of one's ego followed by a sense of merging with nature or the universe. Two-thirds of the participants rated the session among the top five "most spiritually significant experiences" of their lives; one-third ranked it the most significant such experience in their lives. What is striking about this whole line of clinical research is the premise that it is not the pharmacological effect of the drug itself but the kind of mental experience it occasions—**involving the temporary dissolution of one's ego—that may be the key to changing one's mind**. The efficiencies of the adult mind, useful as they are, blind us to the present moment. We're constantly jumping ahead to the next thing. We approach experience much as an artificial intelligence (AI) program does, with our brains continually translating the data of the present into the terms of the past, reaching back in time for the relevant experience, and then using that to make its best guess as to how to predict and navigate the future. One of the things that commends travel, art, nature, work, and certain drugs to us is the way these experiences, at their best, block every mental path forward and back, immersing us in the flow of a present that is literally wonderful—**wonder being the by-product of precisely the kind of unencumbered first sight, or virginal noticing, to which the adult brain has closed itself**. The good thing is I'm seldom surprised. The bad thing is I'm seldom surprised.



If everyday waking consciousness is but one of several possible ways to construct a world, then perhaps there is value in cultivating a greater amount of what I've come to think of as neural diversity. With that in mind, *How to Change Your Mind* approaches its subject from several different perspectives. A couple of terms to note are “entheogens”—from the Greek for “the divine within” and “psychedelic” means simply “mind manifesting.”

- A Renaissance

THREE 2006 EVENTS helped bring psychedelics out of their decades-long slumber:

—Griffiths's landmark paper, “Psilocybin Can Occasion Mystical-Type Experiences Having Substantial and Sustained Personal Meaning and Spiritual Significance.” In time, what he was learning about “the mystery of consciousness and existence” in his meditation practice came to seem more compelling to him than his science. “I was going through the motions at work, much more interested in going home in the evening to meditate.” these substances had the potential to heal not only individuals but humankind as a whole and that the best path to their rehabilitation was by way of credible scientific research. So there were scattered hopeful signs in the early 1990s that conditions were ripening for a revival of psychedelic research. The tiny community that had sustained such a dream through the dark ages began, tentatively, quietly, to organize.

—The second watershed event of 2006 came when the U.S. Supreme Court, in a unanimous decision ruled that the UDV, a tiny religious sect that uses a hallucinogenic tea called ayahuasca as its sacrament, could import the drink to the United States, even though it contains the schedule 1 substance dimethyltryptamine, or DMT. The ruling was based on the Religious Freedom Restoration Act of 1993.

—Thirdly, Bob Jesse and his colleagues would eventually lead to their collaboration on the 2006 study of psilocybin and mystical experience at Johns Hopkins. They believed “it would be a big mistake if medicalization is all that happens.” Why a mistake? Because Bob Jesse was ultimately less interested in people's mental problems than with their spiritual well-being—in using entheogens for the betterment of well people. **Descriptions of such psychedelic experiences always sound a little thin.**

“You have to imagine a caveman transported into the middle of Manhattan. He sees buses, cell phones, skyscrapers, airplanes. Then zap him back to his cave. What does he say about the experience? ‘It was big, it was impressive, it was loud.’ He doesn't have the vocabulary for ‘skyscraper,’ ‘elevator,’ ‘cell phone.’ Maybe he has an intuitive sense there was some sort of significance or order to the scene. But there are words we need that don't yet exist. We've got five crayons when we need fifty thousand different shades.”

Many of the volunteers I spoke to reported initial episodes of intense fear and anxiety before surrendering themselves to the experience—as the sitters encourage them to do. **Safest way to return to normal is to entrust self unconditionally to the emerging experiences.** Guides are instructed to remind volunteers they'll never be left alone and not to worry about the body while journeying because the guides are there to keep an eye on it. If you feel as if you are “dying, melting, dissolving, exploding, going crazy etc.—go ahead.” Volunteers are quizzed: “If you see a door, what do you do? If you see a staircase, what do you do?” “Open it” and “climb up it” are of course the right answers.

I could feel my body dissolving, beginning with my feet, until it all disappeared but the left side of my jaw. It was really unpleasant; I could count only a few teeth left and the bottom part of my jaw. I knew that if that went away I would be gone. Then I remembered what they told me, that whenever you encounter anything scary, go toward it. So instead of being afraid of dying I got curious about what was going on. I was no longer trying to avoid dying.

Instead of recoiling from the experience, I began to interrogate it. And with that, the whole situation dissolved into this pleasant floaty feeling, and I became the music for a while.

The supreme importance of surrendering to the experience, however frightening or bizarre, is stressed in the preparatory sessions and figures largely in many people's journeys, and beyond. Boothby, the philosopher, took the advice to heart and found that he could use the idea as a kind of tool to shape the experience in real time. He wrote: Early on I began to perceive that the effects of the drug respond strikingly to my own subjective determination. If, in response to the swelling intensity of the whole experience, I began to tense up with anxiety, the whole scene appears to tighten in some way. **But if I then consciously remind myself to relax, to let myself go into the experience, the effect is dramatic.** The space in which I seem to find myself, already enormous, suddenly yawns open even further and the shapes that undulate before my eyes appear to explode with new and even more extravagant patterns. Over and over again I had the overwhelming sense of infinity being multiplied by another infinity. Now it is hardwired in my brain so I can connect to it and do often. He had had a meditation practice before psilocybin, but "now I had the motivation, because I had tasted the destination"; he was willing to do the hard work of Zen now that he had gotten a preview of the new modes of consciousness it could make available to him. The idea that we can now approach mystical states of consciousness with the tools of science is what gets Roland Griffiths out of bed in the morning. "As a scientific phenomenon, if you can create a condition in which 70 percent of people will say they have had one of the most meaningful experiences of their lives . . . well, as a scientist that's just incredible."

- Bemushroomed (natural history)

Where did these mushrooms grow, and how? Why did they evolve the ability to produce a chemical compound so closely related to serotonin, the neurotransmitter, that it can slip across the blood-brain barrier and temporarily take charge of the mammalian brain? If the experience of transcendence is mediated by molecules that flow through both our brains and the natural world of plants and fungi, then perhaps nature is not as mute as Science has told us. In the process may we begin to unpack the mystery of their existence and spooky powers.

Paul Stamets acknowledges the challenges of ever proving it to anyone's satisfaction yet deems it "more likely than not" that psilocybin "was pivotal in human evolution." Now consider all this from the mushroom's point of view: what might have started as a biochemical accident has turned into an ingenious strategy for enlarging the species' range and number, by winning the fervent devotion of an animal as ingenious and well traveled (and well spoken!) as Homo sapiens. In McKenna's vision, it is the mushroom itself that helped form precisely the kind of mind—endowed with the tools of language and fired by imagination—that could best advance its interests. How diabolically brilliant! No wonder Paul Stamets is convinced of their intelligence.

Our own species and the challenging circumstances in which we find ourselves today. Homo sapiens might have arrived at one of those periods of crisis that calls for some mental and behavioral depatterning. **Could that be why nature has sent us these psychedelic molecules now?** Alexander von Humboldt believed it is only with our feelings, our senses, and our imaginations—that is, **with the faculties of human subjectivity—that we can ever penetrate nature’s secrets.** “Nature everywhere speaks to man in a voice” that is “familiar to his soul.” I’m thinking, for example, of the “earth’s Internet,” “the neurological network of nature,” and the “forest’s immune system”—three Romantic-sounding metaphors that it would be foolish to bet against. Instead of seeing nature as a collection of discrete objects, the Romantic scientists—and I include Stamets in their number—saw a densely tangled web of subjects, each acting on the other in the great dance that would come to be called coevolution. “Everything,” Humboldt said, “is interaction and reciprocal.”

I and my wife ingested the psychedelic mushrooms:

I felt as though whatever it is that usually divides me from the world out there had begun to fall away. Not completely: the battlements of ego had not fallen; this was not what the researchers would deem a “complete” mystical experience, because I retained the sense of an observing I. **But the doors and windows of perception had opened wide,** and they were admitting more of the world and its myriad nonhuman personalities than ever before. In one way I knew this scene well—the garden coming briefly back to life after the heat of a summer day has relented—but never had **I felt so integral to it.** I was no longer the alienated human observer, gazing at the garden from a distance, whether literal or figural, but rather felt part and parcel of all that was transpiring here. I had felt the personhood of other beings in a way I hadn’t before; whatever it is that keeps us from feeling our full implication in nature had been temporarily in abeyance. There had also been, I felt, an opening of the heart, toward my parents, yes, and toward Judith, but also, weirdly, toward some of the plants and trees and birds and even the damn bugs on our property.

Some of this openness has persisted. I think back on it now as an experience of wonder and immanence. The fact that this transformation of my familiar world into something I can only describe as numinous was occasioned by the eating of a little brown mushroom that Stamets and I had found growing on the edge of a parking lot in a state park on the Pacific coast. **This disclosed the wonder that is always there in a garden or wood, hidden in plain sight—**another form of consciousness “parted from [us],” as William James put it. **It is only the human ego,** with its imagined monopoly on subjectivity, **that keeps us from recognizing them all,** our kith and kin. In this sense, I guess Paul Stamets is right to think the mushrooms are bringing us messages from nature, or at least helping us to open up and read them. Maybe to be in a garden and feel awe, or wonder, in the presence of an astonishing mystery, is nothing more than a recovery of a misplaced perspective, perhaps the child’s-eye view; maybe we regain it by means of a neurochemical change that disables the filters (of convention, of ego) that prevent us in ordinary hours from seeing what is.

- The first wave (history)

Part I: The Promise - Volunteers on LSD appeared to be losing their minds. Humphry Osmond wrote that the extraordinary promise of LSD was to allow the therapist who took it to “enter the illness and see with a madman’s eyes, hear with his ears, and feel with his skin.” Cohen came to think of it instead as something he called “unsanity”: “a state beyond the control of the ego.” In half a dozen or so papers published in the early 1960s, the foundation’s researchers reported some **provocative “results.”** Seventy-eight percent of clients said the experience had increased their ability to love, 71 percent registered an increase in self-esteem, and 83 percent said that during their sessions they had glimpsed “a higher power, or ultimate reality.” Those who had such an experience were the ones who reported the most lasting benefits from their session. Don Allen told me that most clients emerged with “notable and fairly **sustainable changes** in beliefs, attitudes, and behavior, way above statistical probability.” Specifically, they became “much less judgmental, much less rigid, more open, and less defended.” But it wasn’t all sweetness and light: several clients abruptly broke off marriages after their sessions, now believing they were mismatched or trapped in destructive patterns of behavior. “I have no doubt that all that LSD all of us had taken had a big effect on the birth of Silicon Valley.”

Part II: The Crack-Up - “I learned that the brain is an underutilized biocomputer . . . I learned that normal consciousness is one drop in an ocean of intelligence. That consciousness and intelligence can be systematically expanded. That the brain can be reprogrammed.” Timothy Leary said, Listen! Wake up! You are God! You have the Divine plan engraved in cellular script within you. Listen! Take this sacrament! You’ll see! You’ll get the revelation! It will change your life! As with Hubbard and Huxley and Osmond before him, psychedelics had convinced Leary that **they had the power not just to heal people but to change society and save humankind**, and it was his mission to serve as their prophet.

Academic psychiatrists were also made uncomfortable by the spiritual trappings of psychedelic therapy. Charles Grob, the UCLA psychiatrist who would play an important role in the revival of research, wrote in a 1998 article on the history of psychedelics that “by blurring the boundaries between religion and science, between sickness and health, and between healer and sufferer, the psychedelic model entered the realm of applied mysticism”—a realm where psychiatry, increasingly committed to a biochemical understanding of the mind, was reluctant to venture. With its emphasis on set and setting—what Grob calls “the critical extra-pharmacological variables”—psychedelic therapy was also a little too close to shamanism for comfort. For so-called shrinks not entirely secure in their identity as scientists (the slang is short for “headshrinkers,” conjuring images of witch doctors in loincloths), this was perhaps too far to go. Many of the scientific camp objected to the researchers taking the drug also and called them “disqualified as competent investigators, rendering their conclusions biased by their own ecstasy.” In 1965, Bellevue Hospital in Manhattan admitted sixty-five people for what it called LSD-induced psychoses. **With the media now in full panic mode**, urban legends about the perils of LSD spread more rapidly than facts. With pictures of crazed people cowering in corners, the story warned that “an LSD trip is not always a round trip” but rather could be “a one-way trip to an asylum, a prison or a grave.” LSD truly was an acid, dissolving almost everything with which it came into contact, beginning with the hierarchies of the mind (the superego, ego, and

unconscious) and going on from there to society's various structures of authority and then to lines of every imaginable kind: between patient and therapist, research and recreation, sickness and health, self and other, subject and object, the spiritual and the material. What is the story of the first-wave researchers if not a story about searching for **an appropriate container for these powerful chemicals**? They tested several different possibilities: the psychotomimetic, the psycholytic, the psychedelic, and, still later, the entheogenic. None were perfect, but each represented a different way to regulate the power of these compounds, by proposing a set of protocols for their use as well as a theoretical framework. Where Leary and the counterculture ultimately parted ways with the first generation of researchers was in deciding that no such container—**whether medical, religious, or scientific**—was needed and that an unguided, do-it-yourself approach to psychedelics was just fine.

- Journeying Underground (travelogue)

The psychedelic world had gone underground, therapists, working with a variety of psychedelic substances in a carefully prescribed manner, with the intention of healing the ill or bettering the well by helping them fulfill their spiritual, creative, or emotional potential. Many of these guides are credentialed therapists, so by doing this work they are risking not only their freedom but also their professional licenses.

Trip One: LSD

The otherworldly experiences of Leo Zeff had humbled him, opening him up to possibilities and mysteries without closing him to skepticism—or to the pleasures of everyday life on this earth. Instead of turning away from any monster that appears, move toward it, stand your ground, and demand to know, “What are you doing in my mind? What do you have to teach me?” Hallucinations = to wander in one's mind. **Love is everything** is most often the take away lesson, when the ego's grip on the mind is relaxed but not eliminated. I had survived! Had roused no sleeping monsters in my unconscious! and grateful it had been productive. All that day and well into the next, a high-pressure system of well-being dominated my psychological weather. Being in no hurry to move on to the next thing and then the thing after that. I had been granted a taste of a slightly other way to be—**less defended, I would say, and so more present**.

Trip Two: Psilocybin

I would need a whole new first-person pronoun. For what was observing the scene was a vantage and mode of awareness entirely distinct from my accustomed self; in fact I hesitate to use the “I” to denote the presiding awareness, it was so different from my usual first person. Where that self had always been a subject encapsulated in this body, **this one seemed unbounded by any body, even though I now had access to its perspective**. That perspective was supremely indifferent, neutral on all questions of interpretation, and **unperturbed even in the face of what should by all rights have been an unmitigated personal disaster**. Yet the “personal” had been obliterated. Everything I once was and called me, this self six decades in the making, had been liquefied and dispersed over the scene. What had always been a thinking, feeling, perceiving subject based in here was now an object out there. I was paint! **The sovereign ego**, with all its armaments and

fears, its backward-looking resentments and forward-looking worries, **was simply no more**, and there was no one left to mourn its passing. Yet something had succeeded it: this bare disembodied awareness, which gazed upon the scene of the self's dissolution with benign indifference. I was present to reality but as something other than my self. And although there was no self left to feel, exactly, there was a feeling tone, which was calm, unburdened, content. There was life after the death of the ego. This was big news. Yet this by itself strikes me as a remarkable gift: that **we can let go of so much**—the desires, fears, and defenses of a lifetime!—**without suffering complete annihilation.**

Trip Three: 5-MeO-DMT (or, The Toad)

Yes, “the toad,” or to be more precise, the smoked venom of the Sonoran Desert toad (*Incilius alvarius*), also called the Colorado River toad, which contains a molecule called 5-MeO-DMT that is one of the most potent and fast-acting psychotropic drugs there is. I had the feeling—no, the knowledge—that every single thing there is is made of love. “After what seemed like an eternity but was probably only minutes, you start to reassemble and come back into your body. I managed, barely, to squeeze out the words I had prepared, “trust” and “surrender.” These words became my mantra. **I was no more.** Unfortunately, the terror didn't disappear with the extinction of my “I.” Every touchstone that tells us “I exist” was annihilated, and yet I remained conscious. “Is this what death feels like? Could this be it?” That was the thought, though there was no longer a thinker to have it. **I felt for the first time gratitude for the very fact of being**, that there is anything whatsoever. I decided I needed to practice being with stillness, being with other people as I find them (imperfect), and being with my own unimproved self. To savor whatever is at this very moment, without trying to change it or even describe it. The journeys have shown me what the Buddhists try to tell us but I have never really understood: that **there is much more to consciousness than the ego, as we would see if it would just shut up.** And that its dissolution (or transcendence) is nothing to fear; in fact, it is a prerequisite for making any spiritual progress.

- Your Brain on Psychedelics (the neuroscience)

How do you get from the ingestion of a compound created by a fungus or a toad (or a human chemist) to a novel state of consciousness with the power to change one's perspective on things, not just during the journey, but long after the molecule has left the body? How did that chemical opening lead, ultimately, to what I felt and experienced? **To the dissolution of my ego, for example, and the collapse of any distinction between subject and object?**

The default mode network is the place where our minds go to wander—to daydream, ruminate, travel in time, reflect on ourselves, and worry. All these functions may belong exclusively to humans, and specifically to adult humans, for the default mode network isn't operational until late in a child's development. Robin Carhart-Harris has described the DMN variously as the brain's “orchestra conductor,” “corporate executive,” or “capital city,” charged with managing and “holding the whole system together.” And with keeping the brain's unrulier tendencies in check, nodes in the default network are thought to be responsible for autobiographical memory, the material from which we compose **the story of who we are**, by linking our past experiences with what happens to us and with projections of our future goals. The price of the sense of an

individual identity is a sense of separation from others and nature. But, **the loss of the sense of self**, experienced by meditators, is where the usual boundaries we experience between self and world, subject and object, all melt away. This sense of merging into some larger totality is of course one of the hallmarks of the mystical experience. It deactivates the brain's default mode network. This can be achieved any number of ways: through psychedelics and meditation. One of the brain's main functions is to reduce uncertainty by telling itself stories. Think of the mind as an uncertainty-reducing machine with a few serious bugs in it. This is where psychedelics come in. By quieting the default mode network, these compounds can **loosen the ego's grip on the machinery of the mind**. The brain operates with greater flexibility and interconnectedness under hallucinogens. Communications within the brain are radically reorganized when the default mode network goes off-line. One of the most interesting things about a psychedelic experience is that it sharpens one's sensitivity to one's own mental states, especially in the days immediately following.

Baby consciousness is so different from adult consciousness as to constitute a mental country of its own, one from which we are expelled sometime early in adolescence. Is there a way back in? The closest we can come to visiting that foreign land as adults may be during the psychedelic journey. Both focused attention and self-reflection are absent in young children. In *The Philosophical Baby*, Alison Gopnik draws a useful distinction between the "spotlight consciousness" of adults and the "lantern consciousness" of young children. The first mode gives adults the ability **to narrowly focus attention on a goal**. (In his own remarks, Carhart-Harris called this "ego consciousness" or "consciousness with a point.") In the second mode—lantern consciousness—attention is more widely diffused, allowing the child to take in information from virtually anywhere in her field of awareness, which is quite wide, wider than that of most adults. (By this measure, children are more conscious than adults, rather than less.) The adult brain directs the spotlight of its attention where it will and then relies on predictive coding to make sense of what it perceives. This is not at all the child's approach, Gopnik has discovered. Being inexperienced in the way of the world, the mind of the young child has comparatively few priors, or preconceptions, to guide her perceptions down the predictable tracks. Instead, the child approaches reality with the **astonishment** of an adult on psychedelics. Gopnik believes that both the young child (five and under) and the adult on a psychedelic have a stronger predilection for the high-temperature search; in their quest to make sense of things, their minds explore not just the nearby and most likely but "the entire space of possibilities." These high-temperature searches might be inefficient, incurring a higher rate of error and requiring more time and mental energy to perform. High-temperature searches can yield answers that are **more magical than realistic**. "Children are better learners than adults in many cases when the solutions are nonobvious" or, as she puts it, "further out in the space of possibilities," a realm where they are more at home than we are. "We have the longest childhood of any species," Gopnik says. "This extended period of learning and exploration is what's distinctive about us. I think of childhood as the R&D stage of the species, concerned exclusively with learning and exploring. "The child's brain is extremely plastic, **good for learning, not accomplishing**—**better for "exploring rather than exploiting**. Consciousness narrows as we get older," Gopnik says. "Adults have congealed in their beliefs and are hard to shift," she has written, whereas "children are more fluid

and consequently more willing to entertain new ideas. If you want to understand what an expanded consciousness looks like, all you have to do is have tea with a four-year-old, or drop a tab of LSD. “The short summary is, babies and children are basically tripping all the time.” Psychedelics make us **more open and boost creativity**. As for the unwell, the patients who stand to gain the most are probably those suffering from the kinds of mental disorders characterized by mental rigidity: addiction, depression, obsession. It seems plausible to me that **the psychedelic experience could help us get out of those states, create an opportunity in which the old stories of who we are might be rewritten.**

- Psychedelics in Psychotherapy (the trip treatment)

One: Dying

This is precisely where psychedelic therapy seems to be operating: on a frontier between spirituality and science that is as provocative as it is uncomfortable. The pharmacological toolbox for treating depression—which afflicts nearly a tenth of all Americans and, worldwide, is the leading cause of disability—has little in it today. There are almost forty-three thousand suicides every year in America (more than the number of deaths from either breast cancer or auto accidents). People who had been palpably scared of death—**they lost their fear**. The fact that a drug given once could have such an effect for so long is an unprecedented finding. **Our fear of death is a function of our egos**, which burden us with a sense of separateness that can become unbearable as we approach death.

I sat up and spoke with Tony and Krystallia. I mentioned that everyone deserved to have this experience . . . that if everyone did, no one could ever do harm to another again . . . wars would be impossible to wage. The room and everything in it was beautiful. Tony and Krystallia, sitting on [their] pillows, were radiant! They helped him to the bathroom. Even the germs (if there were any present) were beautiful, as was everything in our world and universe. I know I’ve had no earthly pleasure that’s ever come close to this feeling . . . no sensation, no image of beauty, nothing during my time on earth has felt as pure and joyful and glorious as the height of this journey. Aloud, he said, “Never had an orgasm of the soul before.” Many also described an encounter with their cancer (or their fear of it) that had the effect of shrinking its power over them. The cancer is something completely out of my control, but the fear, I realized, is not. Dinah’s epiphany gave way to feelings of “overwhelming love.” The uncanny authority of the psychedelic experience might help explain why so many cancer patients in the trials reported that their fear of death had lifted or at least abated: they had stared directly at death and come to know something about it, in a kind of dress rehearsal. A high-dose psychedelic experience is death practice, says Katherine MacLean, the former Hopkins psychologist. You’re losing everything you know to be real, letting go of your ego and your body, and that process can feel like dying. And yet the experience brings the comforting news that there is something on the other side of that death. Both the NYU and the Hopkins trials, some 80 percent of cancer patients showed clinically significant reductions in standard measures of anxiety and depression, an effect that endured for at least six months after their psilocybin session. There was a **shift from feelings of separateness to interconnectedness**. In most cases, this shift was accompanied by a repertoire of powerful emotions, **including “exalted feelings of joy, bliss, and love.”** Difficult

passages during the journey were typically followed by positive feelings of surrender and acceptance (even of their cancers) as people's fears fell away. The ego is a mental construct that performs certain functions on behalf of the self. Chief among these are maintaining the boundary between the conscious and the unconscious realms of the mind and the boundary between self and other, or subject and object. It is only when these boundaries fade or disappear, as they seem to do under the influence of psychedelics, that we can "let go of rigid patterns of thought, allowing us to perceive new meanings with less fear." At first, the falling away of the self feels threatening, but **if one can let go and surrender, powerful and usually positive emotions flow in**—along with formerly inaccessible memories and sense impressions and meanings. No longer defended by the ego, the gate between self and other—Huxley's reducing valve—is thrown wide open. And what comes through that opening for many people, in **a great flood, is love**. Love for specific individuals, yes, but also, as Patrick Mettes came to feel (to know!), love for everyone and everything—love as the meaning and purpose of life, the key to the universe, and the ultimate truth. So it may be that the loss of self leads to a gain in meaning. Patrick Mettes lived seventeen months after his psilocybin session, and according to Lisa those months were filled with a great many unexpected satisfactions, alongside Patrick's dawning acceptance that he was going to die. Patrick had changed.

Two: Addiction

As one lifetime smoker put it to me in terms so simple I found it hard to believe, "**Smoking became irrelevant, so I stopped.**" Psychedelics had returned me to the child's wider sense of wonder. A part of my brain that had gone to sleep was awakened, a feeling of connectedness to everything. These sessions deprive people of the luxury of mindlessness—our default state, and one in which addictions like smoking can flourish. It's literally a reboot of the system. Albert Einstein called the modern human's sense of separateness "a kind of optical delusion of his consciousness." Peyote is not harmful to these people . . . It is a better antidote to alcohol than anything the missionaries, the white man, the American Medical Association, and the public health services have come up with. I have more self-acceptance, and that is a gift. Do you see the world as a prison or a playground? People come out of these experiences seeing the world a little more like a playground. We are descendants of those who found the experience of awe blissful, because it's advantageous for the species to have an emotion that makes us feel part of something much larger than ourselves. Awe promotes a sense of the 'small self' that directs our attention away from the individual to the group and the greater good. An experience of awe appears to be an excellent antidote for egotism.

Three: Depression

My mind works differently. I ruminate much less, and my thoughts feel ordered, contextualized. I had this overwhelming feeling—it wasn't even a thought—that everything and everyone needs to be approached with love, including myself. The default mode network appears to be the seat not only of the ego, or self, but of the mental faculty of time travel as well. The two are of course closely related: without the ability to remember our past and imagine a future, the notion of a coherent self could hardly be said to exist; we define ourselves with reference to our personal history and future objectives. **As meditators eventually discover, if we can manage to stop thinking about the past or future and sink into the present, the self seems to disappear.**

“This is who I am.” “I don’t deserve to be loved.” “I’m the kind of person without the willpower to break this addiction.” Getting overly attached to these narratives, taking them as fixed truths about ourselves rather than as stories subject to revision, contributes mightily to addiction, depression, and anxiety. Of all the phenomenological effects that people on psychedelics report, the dissolution of the ego seems to me by far the most important and the most therapeutic. The loss of ego or self (what Jung called “psychic death”) they’re suggesting is the key psychological driver of the experience. It is this that gives us the mystical experience, the death rehearsal process, the overview effect, the notion of a mental reboot, the making of new meanings, and the experience of awe. When the ego dissolves, so does a bounded conception not only of our self but of our self-interest. What emerges in its place is invariably a broader, more openhearted and altruistic—that is, more spiritual—idea of what matters in life. One in which a new sense of connection, or love, however defined, seems to figure prominently. **“The psychedelic journey may not give you what you want,” as more than one guide memorably warned me, “but it will give you what you need.”**

The posterior cingulate cortex (PCC) is believed to be the locus of the experiential or narrative self; it appears to generate the narratives that link what happens to us to our abiding sense of who we are. Brewer believes that this particular operation, when it goes awry, is at the root of several forms of mental suffering, including addiction. “It’s one thing to have cravings,” as Brewer points out, “but quite another to get caught up in your cravings.” When we take something that happens to us personally, that’s the PCC doing its (egotistical) thing. Brewer thinks that by diminishing its activity, whether by means of meditation or psychedelics, we can learn **“to be with our thoughts and cravings without getting caught up in them.”** Achieving such a detachment from our thoughts, feelings, and desires is what Buddhism (along with several other wisdom traditions) teaches is the surest path out of human suffering. I discovered my trips had made it easier for me to drop into a mentally quiet place, something that in the past had always eluded me. Maybe it was the specific content of the image, and the mere thought of bidding adieu to my ego, watching it float away like a hot-air balloon, that had the power to silence my default mode network. We remain a long way from understanding exactly what happens to consciousness when we alter it, either with a molecule or with meditation.

- In Praise of Neural Diversity (epilogue)

Several of the researchers and therapists I’ve interviewed nevertheless look forward to a time, not far off, when psychedelic therapy is routine and widely available, in the form of a novel hybrid of pharmacology and psychotherapy. George Goldsmith envisions a network of psychedelic treatment centers, facilities in attractive natural settings where patients will go for their guided sessions. I, for one, sincerely hope that the kinds of experiences I’ve had on psychedelics will not be limited to sick people and will someday become more widely available. Not only did my guides create a setting in which I felt safe enough to surrender to the psychedelic experience, but they also helped me to make sense of it afterward. Just as important, they helped me to see there was something here worth making sense of. This is by no means self-evident. For much like the depressed patients I interviewed in London, who described being nourished and even inspired by their furloughs from the cage of depression, the experience of

by Michael Pollan

some other way of being in the world survives in memory, as a possibility and a destination. One of the gifts of psychedelics is the way they reanimate the world, as if they were distributing the blessings of consciousness more widely and evenly over the landscape, in **the process breaking the human monopoly on subjectivity** that we moderns take as a given. To us, we are the world's only conscious subjects, with the rest of creation made up of objects; to the more egotistical among us, even other people count as objects. Psychedelic consciousness overturns that view, by granting us a wider, more generous lens through which we can glimpse the subjecthood—the spirit!—of everything, animal, vegetable, even mineral, all of it now somehow returning our gaze. Spirits, it seems, are everywhere.