



FOR THE FIRST TIME IN 40 YEARS, THE MEDICAL COMMUNITY IS USING PSYCHEDELIC DRUGS SUCH AS LSD AS THERAPEUTIC TOOLS, DOSING COMBAT-ADDLED IRAQ VETS AND DISEASED PATIENTS COMING TO GRIPS WITH THEIR IMPENDING DEATH. THIS IS THE STORY OF MEDICAL ADVENTURERS AND THEIR HIGH-FLYING PATIENTS

BY STEVEN KOTLER



THE NEW PSYCHEDELIC RENAISSANCE



The room where they wait is a long rectangle. The floor is covered in thick green carpeting, so everyone calls it the “green room.” One wall of the green room is covered in books, the other three in paintings. In the center of the high ceiling is an old floral medallion—once the anchor point for a massive Victorian chandelier. When Mara Howell lies in bed she looks straight up at it. The flowers are braided into a wreath, and maybe it’s all that Victorian ornamentation distorting the image, or maybe the design was intentional, but either way, the results look less botanical

phone number. Then there were the meetings. At the first meeting Marilyn had several hundred questions, but Allan had several hundred answers. His knowledge was impressive, as was his willingness to take great risks for perfect strangers. Marilyn liked him immediately, which was a good thing because there were no other options.

Mara was 32 when doctors diagnosed her with colon cancer. That was a little more than a year ago, and it was an unusual diagnosis. The disease typically strikes the elderly—from 2002 to 2006 the median age was 71. On top of that, Mara is, to all who know her, “vibrant.” She rarely drinks, doesn’t do drugs, eats right, sleeps well, is

“WE ARE GOING TO HAVE AN ADVENTURE,” ALLAN SAYS. AND HE IS NOT LYING. AT 11:15 A.M. MARA SWALLOWS 110 MILLIGRAMS OF PHARMACOLOGICALLY PURE ECSTASY, LIES DOWN IN BED AND LOOKS AT THE ANGELS ON THE CEILING. “PLEASE,” HER MOTHER SAYS, “BE ANGELS OF MERCY.”

than celestial. The flowers look like angels. Mara hopes they are angels of mercy.

Marilyn Howell, Mara’s mother, and Lindsay Corliss, Mara’s close friend, are also waiting in the green room. Lindsay is nervously tidying up; Marilyn is just nervous. She walks to the window, glances into the street again and wonders, Where the hell is Allan? She doesn’t know much about Allan—though she knows he’s late and she knows that’s not his real name. Allan is an underground therapist of sorts, and the work he does, what he calls “his crimes of compassion,” remains very much illegal.

It took Marilyn some serious effort to even drum up his

ridiculously optimistic, always battles her weight but gets plenty of exercise. A month before her first major surgery she had been in Honduras gathering data on fish populations and earning a master scuba diver certification.

In the past year Mara has tried all the traditional drugs and all the alternative therapies. Wow, has she tried all the alternative therapies—massage, macrobiotics, Chinese herbs, Tibetan herbs, acupuncture, acupressure, the Feldenkrais Method, chiropractic realignment, the power of prayer. At a Catholic mass in Boston the priest read from the pulpit, “Blessed Virgin Mary, please intercede to heal Mara Howell.” Jews at the Aquarian Minyan in Berkeley chanted

"*Mi sheberakh avoteinu,*" while Buddhists in Hollywood tried "*Nam-myoho-renge-kyo.*" Twice Mara went to Brazil to meet the famed faith healer John of God. John of God has purportedly healed millions of people. But he couldn't heal Mara.

About five weeks earlier Mara was forced to leave her apartment in Oakland for the home in which she grew up. So the green room, which was really the front room of her mother Marilyn's Boston home, was converted into a sick ward.

Marilyn had heard rumors of Allan and the particular work he does, but broaching the subject with her daughter was not easy. The treatment is not only radical and illegal but also geared toward helping patients confront what's politely called "end-of-life anxiety" and known to most as "mortal terror." Mara's reaction was hostile. "I'm not interested in discussing end-of-life issues," she snapped. "Who told you about this? How could they be so insensitive?" Then she thought it through. She knew she needed a miracle, and this treatment, unlike all the others, had a history of spiritual transformation—that is, she also knew, if it didn't kill her first.

Allan is an underground psychedelic therapist. Psychedelic therapy is built on the 1960s idea that psychedelic drugs—such as LSD and psilocybin (the "magic" in magic mushrooms), which are known to radically alter cognition and perception—also have the ability to produce profound insight at low doses and cathartic, life-changing experiences at high doses. Psychedelic therapists not only provide these drugs but also act as guides throughout the journey.

The drug Allan is considering for the first session is MDMA, known on the street as ecstasy and a latecomer to the psychedelic tool kit. First synthesized by German pharmaceutical

doctors. It's dicey, they said, but doable. Marilyn and Allan decide on a low starter dose. Mara agrees to roll the dice. That was two days ago.

Today, the doorbell rings. Allan and that starter dose have arrived. Mara is excited. Lindsay is hopeful. Marilyn thinks she may throw up. Her mind won't stop racing. This starter dose is just a best guess, right? Can she even trust Allan? But Allan is buoyant, gloriously optimistic, not patronizing like other therapists Mara has met. His demeanor calms everyone. As he walks into the room Allan takes the pills from his pocket and holds them up.

"We are going to have an adventure," he says.

And he is not lying.

At 11:15 A.M. Mara swallows 110 milligrams of pharmacologically pure ecstasy, lies down in bed and looks at the angels on the ceiling. Marilyn follows her daughter's upward gaze. She too spots the medallion and utters one final prayer.

"Please be angels of mercy," she says. "Please, please, please."

Though the work Allan does remains underground, that is now starting to change. We are teetering on the threshold of a major psychedelic renaissance. For the first time in 40 years, without resistance from the law, in countries all over the world and cities all over America, some of the most infamous substances in history are again being put to the test.

Scientists in Israel, Jordan and Canada are looking at the therapeutic potential of MDMA. In Brazil, Germany and Spain, researchers have begun untangling ayahuasca, a plant



AFTER TAKING ECSTASY, IRAQ VETERAN JOHN THOMPSON SAYS. "I WAS SHOCKED BY THE ACCESS I HAD TO MY MEMORY. THE NEXT DAY THE NIGHTMARES WERE GONE. I WAS GLOWING AND EXTROVERTED—FOR THE FIRST TIME SINCE GETTING BLOWN UP."

company Merck in 1912, MDMA didn't hit the therapeutic world until the mid-1970s, when pharmacologist Alexander Shulgin heard from his students that it helped one of them get over a stutter. Shulgin dosed himself, reporting "altered states of consciousness with emotional and sexual overtones." He also noticed the drug "opened people up, both to other people and to inner thoughts." Ecstasy was criminalized in 1985 but not before it had been introduced to thousands of therapists.

Because Allan and Marilyn don't want to compromise Mara's palliative care, the MDMA will have to be administered in addition to all her other medications, and this is where the danger lies. Chemically, MDMA is an amphetamine. Because amphetamines increase heart rate and blood pressure and because Mara is already suffering palpitations, there's a chance of inducing a heart attack. Neurotoxicity is another concern. A third problem is diminishing her emotional and physical reserves, triggering a slide from which there would be no return. But the greatest threat is ignorance. Allan consulted outside



that contains DMT—arguably the most potent hallucinogen on earth. In Switzerland, LSD is being used as a treatment for end-of-life anxiety. In Mexico and Canada it's ibogaine (another powerful plant-derived psychedelic) for opiate addiction. Here at home, scientists at Johns Hopkins have concluded a long-term psilocybin study that examined the purported "mystical experience" people have while hallucinating. At UCLA researchers have completed an end-of-life-anxiety psilocybin study, and teams at NYU and Johns Hopkins are beginning studies of their own. At the University of Arizona it's psilocybin as a treatment for obsessive-compulsive disorder. Researchers at Harvard have finished neurotoxicity studies on MDMA and peyote, plus LSD for cluster headaches and MDMA for end-of-life anxiety. In South Carolina researchers working with combat veterans returning from Iraq and Afghanistan, among other trauma victims, have completed one study of MDMA as a treatment for post-traumatic stress disorder and are about to begin another. (continued on page 114)

PSYCHEDELIC

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Moreover, the majority of scientists involved say the government no longer frowns on their work, and entering the field is no longer the easiest way to be denied tenure. "For three decades, just proposing human research with a psychedelic was an academic career ender—the electric third rail for any serious scientist," says Roland Griffiths, a Johns Hopkins professor of behavioral biology and neuroscience, and a psychedelic researcher himself. "But that's just no longer true."

"The difference," says Rick Doblin, "is we're getting it right this time." And Doblin would know. With a Harvard Ph.D. and as founder of the Multidisciplinary Association for Psychedelic Studies, or MAPS—a nonprofit drug company whose goal is the eventual manufacture of psychedelics—Doblin sits at the forefront of this new movement. For the past 27 years he has worked to get governments to reconsider their stance on psychedelics, to get these drugs back into the laboratory and to help design experiments rigorous enough to force even the most adamant opponents to reevaluate their position. Doblin is 56 years old, with a strong, stocky frame, curly brown hair, a wide forehead and a face creased with laugh lines. His demeanor is mostly high school guidance counselor, but his stories are often Burning Man.

What Doblin means by "getting it right" is not just a reference to experimental execution but also to overall attitude. "We lost this battle the first time around because of arrogance," he says. "Tim Leary wanted LSD to bring down the establishment. Terence McKenna said psychedelics are inherently opposed to culture. That was the arrogance. Theirs was an entirely romantic notion but also isolationist and uncomfortably superior. I'm trying to reverse that trend. I want to mainstream psychedelic medicine. My motto is 'Tune in, turn on and go to the bake sale.'"

On the day I meet Doblin, just after getting breakfast at the local bagel shop, we walk back to his house. He lives in Belmont, Massachusetts, a town so idyllically quaint that neighboring Cambridge—home of Harvard and MIT—seems I.M. Pei-modern by comparison. Belmont is tree-lined and plaid-friendly, one of the last places one could describe as revolutionary. But looks can be deceiving. A woman stops Doblin. She's in her late 40s, well dressed, a poster child for overprotective suburban mothers.

"Rick," she shouts from down the block, "did you see that great special on LSD on the History Channel the other night?"

What follows is a 10-minute discussion about the current state of psychedelic affairs. The woman knows much about this work. After she leaves, Doblin tells me he belongs to one of the most popular temples in town.

"And that," he says with a smile, "was the rabbi's wife."

"The who?"

"I don't ever hide what I do. It's a small

community. Everybody knows everybody's business. Most people are really supportive."

Doblin believes the support he gets is the best kind. "It's based on knowledge, compassion and social justice," he says. "OCD and end-of-life anxiety—these are very difficult conditions to cure—but the research clearly shows that psychedelics can help with both. We've got vets coming back from Iraq with intractable post-traumatic stress syndrome. The government doesn't know what to do for these people. But MDMA-assisted psychotherapy works for them as well. Cluster headaches are also called 'suicide headaches' for the level of pain they produce and their frequency of occurrence. They're another incurable. But treating them with LSD looks really promising right now."

Doblin raises a hand and sweeps it around the neighborhood.

"People around here know all this. Belmont is a small part of the future I'm working toward. This may be the only town in America where it's not unusual to find people discussing the benefits of psychedelic therapy at a PTA meeting."

Mara grits her teeth and stares at the angels. It's been more than an hour since she took ecstasy, and all that's happened since has not been pleasant. Her pain level has risen. Her noon dose of methadone didn't help. It's now one P.M. Everyone in the green room begins to discuss options. At 110 milligrams, Mara's starter pill is 15 milligrams shy of the standard therapeutic dose. In most studies patients are given an initial hit of 125 milligrams and 75 more an hour later. Allan believes that doubling that starter would be safe. Mara swallows another 110 milligrams of MDMA and asks, "Is spiritual transformation ever easy?"

The reason Mara believes psychedelics can produce spiritual transformation has little to do with her own story and everything to do with her mother's. Marilyn had been born with a congenital deformity known as pectus excavatum, a dent in the center of her chest roughly the size of a golf ball. Her organs were pushed to one side and her rib cage jutted out. In her early 30s Marilyn met psychotherapist and pioneer of mind-body medicine Ron Kurtz. He opined that the dent was the result of trapped childhood emotion. Release the emotion, he said, and the dent goes away.

Marilyn tried everything to release the emotion, and then she tried LSD therapy. Her session also took place in the green room, also beneath the angels. She had a blindfold across her face and a "sitter"—the technical term for someone who stays sober and guides the trip (a scaled-down version of the job Allan now does)—by her side. Half an hour after taking the drug and much to her surprise, Marilyn began to wail. Primal screams came pouring out. Eventually the screams softened to chants, and for the next four hours Marilyn made spontaneous repetitions of the sound *aaaaah*—though, in those moments, calling her Marilyn may have been something of a misnomer. "I no longer perceived any boundaries separating

me from my surroundings. I was sound and love and peace. Every emotion I had ever felt seemed insignificant by comparison. At that moment I knew what was meant by mystical experience, by transcendence. For me it had nothing to do with faith or religion or belief in God. I had experienced God."

And when she was done, the dent in her chest was almost gone. Her rib cage flattened, her organs shifted toward their proper spots. What Marilyn experienced is known as spontaneous healing, and it is classified, at least in the Judeo-Western traditions, as a miracle. This was why Mara dropped that second pill; this was the kind of miracle she was after.

On a small side table in the green room, Lindsay has arranged a display of gifts from Mara's former students, a seabed of crystals, carved stones, colorful beads, all encircling a bronze statue of Ganesh, the elephant-headed god regarded as the "remover of obstacles" in the Hindu canon. Ganesh carries an umbrella. An hour after Mara takes her second pill the afternoon begins to slant through the windows. Sunlight spotlights the umbrella. Ganesh glows gold. Maybe it's a sign, maybe it's the drugs, but for the first time in a year, Mara's pain is gone.

George Winston is on the stereo. Mara closes her eyes and floats off with the music. Lindsay sees peace on her friend's face for the first time in...well, she doesn't remember how long. Marilyn glances at the angels on the ceiling.

"Thank you," she says. "Thank you, thank you, thank you."

Just over an hour later the MDMA's effects are fading. Mara doesn't think she needs Allan's help any longer.

"That was great," she says. "I think I'm ready to go deeper next time."

Everybody hugs, and Allan walks out the front door. Mara watches him go, the sight of sunlight giving her an idea. It's been more than a month since she's been outside, and she now wants to go for a walk. She and Lindsay cross the street and sit on an iron bench in a small park, under the shade of a towering oak. They talk about boys, their first sexual experiences and Lindsay's upcoming wedding. Mara doesn't feel sick. She just feels like herself—a feeling she was not sure she would ever have again. Lindsay has something of a contact high.

Two hours pass, and they head back inside the house. Mara has an appetite for the first time in weeks. She eats a large meal, takes her pain meds and, a little later, feels a slight jolt—either a wave of anxiety or her heart skipping a beat. She begins to sweat. Nausea comes next. And then pain. Marilyn helps her upstairs to the bath. Warm water doesn't help. More methadone doesn't help. Mara's palpitations return. Tics and twitches arrive. Now her body feels like a marionette, some madman pulling the strings.

A bad night passes. In the early morning, Lindsay heads to the airport. She lives in Oakland and has to fly home to get married. Mara can barely say good-bye. Ten minutes later Marilyn checks Mara's heart rate again—which is when she decides to take her daughter to the emergency room.

When they leave the house both of them wonder, Will Mara come home again?

We now suspect humans learned about psychedelics the same way we learned about most early medicines—by copying animal behavior. Everywhere scientists have looked they've found animals who love to party. Bees stoned on orchid nectar, goats gobbling magic mushrooms, birds chomping marijuana seeds, rats on opium, mice, lizards, flies, spiders and cockroaches on opium, moths preferring the incredibly hallucinogenic datura flower, mandrills taking the even stronger iboga root. So prevalent is this behavior that many researchers now believe "the pursuit of intoxication with drugs is a primary motivational force in the behavior of organisms," as UCLA psychopharmacologist Ronald Siegel writes in his book *Intoxication: The Universal Drive for Mind-Altering Substances*.

For millennia, psychedelics sat at the center of most spiritual traditions. The Eleusinian rituals of the Greeks, for example, required drinking *kykeon*—a grainy beverage containing the rye ergot from which LSD was later derived. The Aztecs prayed to Teonanácatl, literally the "god mushroom," while the sacred Hindu text the Rig Veda contains 120 verses devoted to the rootless, leafless plant (a.k.a. "mushroom") soma, including, "We have drunk soma; we have become immortal; we have gone to the light; we have found the gods."

All of which is to say that one of the least understood facts about psychedelics is how well understood these drugs actually are. Ralph Metzner, psychologist and pioneering LSD explorer, points out, "Anthropologists now know that by the time our modern inquiry into psychedelics began, humanity had already accumulated an encyclopedia's worth of knowledge on the subject."

In 1887 Parke, Davis & Company began distributing peyote to doctors who were curious. Many were curious. By the turn of the century mescaline—the psychoactive inside of peyote—had been isolated, jump-starting three decades of phenomenological investigations into what Hunter S. Thompson called "zang." As in, "Good mescaline comes on slow. The first hour is all waiting, then about halfway through the second hour you start cursing the creep who burned you because

nothing is happening...and then ZANG!"

In 1938 Albert Hofmann, a Swiss chemist working for Sandoz Laboratories, went looking for a new way to boost circulation and ended up synthesizing LSD. Sandoz began distributing LSD free of charge to scientists around the world, listing two possible uses in the accompanying literature. First, LSD had potential as a psychotomimetic—a drug that mimics psychosis, thus giving researchers a better way to understand the schizoid state. And second, perhaps it could be used as a therapeutic tool.

By the mid-1950s, not long after Aldous Huxley told the world about mescaline in *The Doors of Perception*, psychiatrist Oscar Janiger—appropriately nicknamed Oz—was giving acid to such celebrities as Cary Grant and Jack Nicholson in hopes of learn-

after taking these mushrooms [than] in the preceding 15 years of doing research in psychology." Over the next few years, Leary dosed hundreds, maybe thousands of people, including author Ken Kesey and the rest of the Merry Pranksters. By the time that party was over—LSD and psilocybin were federally banned in 1968, though most point to the 1970 Controlled Substance Act (and the resulting export of U.S. drug policy to the rest of the world) as the real end—dozens of books had been written and more than 1,000 papers published about research conducted on more than 40,000 patients.

"Nixon shut it all down," says Doblin. "He called Leary the most dangerous man in America. That's what we remember. But all this work was the beginning of modern brain science: the serotonin revolution, our first real picture of the subconscious, potential cures for some of the most serious conditions in the world. It's kind of incredible most people don't know this."

Marilyn takes Mara to Brigham and Women's Hospital in Boston. By the time she checks in most of her symptoms have subsided. The initial ER examination report reads, "Awake, alert and in no obvious distress." But tests come back with problems, and she ends up staying two weeks. When she's finally discharged, she's 14 pounds lighter and on 15 different meds. The first thing she wants to do is take more ecstasy.

Her mother isn't so sure, though she understands the logic. "Some of this is Mara's search for a miracle, but mostly it's about the pain. On MDMA, she didn't hurt. She

could move; she got to be herself."

Again Marilyn consults with Allan. Together they try to backtrack the crisis. MDMA could have triggered Mara's symptoms, but they both feel methadone is the more likely culprit. Mara is now taking significantly less methadone, which seems to be a good sign, but she's on twice as many meds as before. Allan consults outside doctors. The main issue is Lovenox, an anticoagulant. MDMA increases blood pressure, and combining it with Lovenox increases the chance of a hemorrhage. They think stopping Lovenox the night before the session should cure the problem, but there's another concern: Mara still wants to go deeper, which means a stronger dose of MDMA. Could it kill her? No one knows for sure.

ing more about creativity. At the same time Humphrey Osmond, a British psychiatrist who coined the word *psychedelic*, first suggested LSD might be used to treat alcoholism. Says NYU's Dr. Stephen Ross, "Addiction was the number one reason psychedelics were administered during this period. Thousands of people were involved. All the research showed the same thing: Afterward, addicts tended toward abstinence. Sometimes sobriety lasted weeks, sometimes months." Addiction remains the primary public health concern in America, and yet most of this research has been buried for 40 years.

Most date that burial to 1960, when Harvard psychologist Timothy Leary traveled to Mexico to try magic mushrooms for the first time. He would later say he learned more about the brain "in the five hours

In her master's thesis on outdoor adventure education, Mara wrote, "Risk is an essential element in adventure programming.... To shelter youth from reality, with all its dangers and uncertainties, is to deny them real life." And she practices what she preaches.

A week after checking out of the hospital, as June sweeps into July, at 10:45 A.M., Mara drops 130 milligrams of MDMA, adding a booster pill of another 55 milligrams a couple of hours later.

"Buy the ticket," said Hunter Thompson, "take the ride."

Rick Doblin was born Jewish, in Oak Park, Illinois and raised, he says, "under the shadow of the Holocaust." This produced a teenager who eschewed sports and girls for books about civil disobedience. By the age of 14 he had already devoted his life to social justice. By the age of 17, he had decided to become a draft resister, meaning he would always have a criminal record and "couldn't be a lawyer or a doctor or do most of the things a good Jewish boy was supposed to do."

Instead, Doblin enrolled in New College of Florida. "I had yet to speak to a girl," he says. "I thought the Beatles wrote silly love songs." To this day he has never

drunk alcohol or coffee, smoked a cigarette or tasted a fizzy drink. Back in 1971 Doblin believed the hype. "Acid scared me," he says. "I was sure one hit made you crazy." Then he got to school and discovered a nudist colony at the campus pool and psychedelic dance parties going on all night. It didn't take him long to get over his fear.

"LSD was an eye-opener," he says, laughing. "When I was younger, like everything else, I took my bar mitzvah very seriously. I had all these questions about religion that I wanted answered. I expected a spiritually transformative experience. When it didn't happen I got really pissed off at God. A decade later I did psychedelics for the first time, and all I could think was that LSD is what my bar mitzvah should have been like. This was what I wanted."

Doblin was instantly obsessed. There were more trips and more research. He stumbled across Dr. John Lilly's *Programming and Metaprogramming in the Human Biocomputer*—Lilly's attempt to map the mind while on acid and inside an isolation tank—and Dr. Stanislav Grof's *Realms of the Human Unconscious: Observations From LSD Research* (Grof was one of the main LSD researchers during the 1950s and 1960s). "Psychedelics were exactly what I was looking for," Doblin says. "Here was a scientific way of bringing

together spirituality, therapy and values. You could journey deep into the psyche and come back with important moral lessons free from prejudice. Talk about a tool for social justice. I thought then, and think now, psychedelics, used properly, are a powerful antidote to Hitler."

Antidote or not, Doblin was too late for that trip. "The drug war had shut everything down. Researchers were moving on to dreaming, meditation, fasting, chanting, holotropic breath work—ways to alter your consciousness without drugs. And it wasn't the establishment's fault; it was our fault, the counterculture's fault. We had it in our grasp and lost it." So Doblin dropped out of college, took more drugs, raised a wolf as a pet, underwent intensive primal scream therapy, learned to build houses for grounding purposes—whatever he could do to distract himself from the fact that psychedelic research was the only thing he wanted to pursue.

In 1982 he caught a break. MDMA had just arrived on the scene, and Doblin was enthralled. "It was a great tool to liberate inner love, to promote self-acceptance and deep honesty. I knew immediately it had amazing therapeutic potential, but it was already being sold in bars. Too many people were doing it. Obviously, a government crackdown was coming. But I knew that if we could get out ahead of that, this was our chance to make up for all that arrogance; this was our chance to do something different."

The DEA's MDMA crackdown began in early 1984, but Doblin was ready. He had met Laura Huxley, the widow of Aldous, and through her he learned about a psychedelic community he never knew existed. "It was then I realized psychedelic researchers hadn't disappeared, they had merely gone underground." He used these newfound connections to initiate a number of serious research studies and, in hopes of winning the PR battle, began sending MDMA to the world's spiritual leaders. About a dozen of them tried it. A 1985 *Newsweek* story titled "Getting High on Ecstasy" quotes famed Roman Catholic theologian brother David Steindl-Rast about his experience: "A monk spends his whole life cultivating this same awakened attitude MDMA gives you."

One of the studies Doblin was then trying to get the government to approve involved his own grandmother. She was dying and suffering from unipolar depression along the way. He wanted to try treating her with MDMA, but his parents refused to let him break the law. "Here was this very sick old woman who desperately needed help," recalls Doblin. "We had a drug that could help her—a drug that thousands of other people had already taken safely—and a law that prohibited it."

In 1986 Doblin started MAPS and, in an attempt to keep ecstasy legally available to doctors, helped sue the government. He lost that battle. In 1988 the DEA added MDMA to Schedule I of the Controlled Substances Act, alongside heroin, PCP and other drugs "with high potential for abuse" and "no currently accepted medical use in treatment in the United States." This meant that if Doblin wanted to reverse that decision, he had

to convince the FDA that MDMA was both safe and medically useful.

Doblin finished college and decided to go to graduate school. But this was 1988, and no graduate schools were interested in letting him study psychedelic research. “I realized the politics were in the way of the science,” he says, “so I decided to study the politics.” He enrolled in Harvard’s Kennedy School of Public Policy, eventually getting his Ph.D. But before that, in 1989, the FDA had made an internal decision that forever changed the fate of psychedelic research. “The agency underwent a sea change,” says Doblin. “It decided to depoliticize its work and review psychedelic drugs based strictly on scientific merit.”

“Rick figured out the secret,” says Mark Kleiman, director of the Drug Policy Analysis Program at UCLA and, before he switched universities, one of Doblin’s professors at Harvard. “He discovered that the FDA was going to play it straight.” And for the first time in decades, psychedelic research was no longer a pipe dream—suddenly it was in the pipeline.

Mara’s second MDMA experience goes deeper than her first. She talks about her issues with intimacy, her fear of losing control, her dread of betrayal. She begins to speak about her recent refusal of medical updates. “I could find out, but I don’t want to be defined in those terms—as a lost cause. Whatever happens, cancer gave me an opportunity to seek God.”

But the MDMA does not help her find God. By early evening the drug is wearing off. Allan will be out of town for a few weeks, so more work is on hold—but Mara’s disease is not. She is two months away from the date doctors do not expect her to live past. Allan and his psychedelics seem like her only hope, but MDMA isn’t getting the job done. Mara wants to switch to stronger stuff.

Allan has LSD, but he feels the kind of breakthrough Mara desires requires a breakdown of her emotional defenses—and that could trigger a greater fear of death. Mara has rarely spoken of that fear, though she once told Lindsay her concern wasn’t dying. “I’m an only child,” she had said. “I’m terrified of leaving my parents. I’m terrified about what will happen to them if I die.” Even so, for their next session, Allan feels mushrooms are the better idea.

Though there remains quite a bit scientists don’t know about the medical uses for psilocybin, one surer thing is its efficacy in treating end-of-life anxiety. Freud believed existential anxiety is a primary motivational force in humans. In 1974 Ernest Becker won the Pulitzer Prize for arguing that the flip side, which he called the “denial of death,” is the reason for all our behavior—the reason we created society in the first place. A long line of scientists have also pointed out that there’s only one cure to end-of-life anxiety: Attach the finite self to an infinite other. This, they believe, is one of the biological purposes of religion—a way to ease our fear of death. It may also explain why psychedelics can ease the human condition. Psychedelics are known to produce a mystical experience known as “unity.” Exactly

as it sounds, unity is the undeniable feeling of being one with everything. If you’re one with everything, death becomes irrelevant.

Mara drops mushrooms for the first time on a muggy day in early August. An hour passes. Two hours pass. Not much is happening. Mara wants more mushrooms, but Allan has a suggestion. He’s also brought along marijuana, which can enhance the effects of psilocybin. Mara decides to try it but can’t tolerate hot smoke in her feeble lungs. So Marilyn becomes her daughter’s “water pipe.” She takes sips of cold water, breathes marijuana smoke into her mouth, then puts her lips onto Mara’s and blows. Suddenly, for the first time since their last MDMA session, Mara’s pain is nearly gone.

“There is some pain,” she says, “but I don’t feel so uptight about it. It’s there, but it’s not me.”

Then Allan asks about her disease.

“There’s a snake in my house,” is her chilling response.

The rest of the session passes without incident. Mara is disappointed. She wants more, wants to try LSD, but Allan has to leave town again. Mara will have to wait until he returns for that session. The waiting is difficult. There is, after all, a snake in her house.

It took 10 years for Doblin and his associates to convince the government that ecstasy may have therapeutic potential. That victory came in 1992 when the FDA approved the first basic safety and efficacy study in humans. At roughly the same time, Doblin had more ambitious plans. He’d teamed with Dr. Michael Mithoefer, a psychiatrist with a specialty in trauma and an interest in psychedelic therapy, to explore a radical idea. “Therapists had already figured out that MDMA helps people confront traumatic memories—memories with a deep component of fear and anxiety—and get past them,” says Doblin. “Michael already had experience with post-traumatic stress disorder, and PTSD is exactly that kind of problem. It seemed like a perfect fit.”

Doblin wrote the first paper to appear in the scientific literature about MDMA and PTSD. It ran in the *Journal of Psychoactive Drugs* in April 2002. That was also the year Mithoefer received permission to begin his formal study—which is how he met John Thompson (not his real name).

Thompson, 40, now lives in Missouri, but in his younger days he was an Army Ranger. During the second Gulf war he was chasing insurgents in Iraq when an IED blew up beneath him. He broke his back and both his feet and suffered traumatic head injury. “I’ve been in fights,” he says. “I’ve been shot before, but the trauma of getting blown up—it’s a soul shaker.”

Almost immediately, Thompson developed PTSD. He had nightmares every night. Every piece of trash on the road was enough to set off an episode. After about a year, with no respite, he was searching the Internet for cures and found a link on the MAPS website to upcoming studies, including Mithoefer’s PTSD trial. “I’d never done MDMA before,” says Thompson. “I smoked a little pot when I was younger and when I was in my early

20s tried acid once. At the time I was already a Ranger, already a well-trained, hardened killer, but on LSD I thought I was a disciple of Christ. That was pretty unusual.”

Mithoefer’s study was intensive. Patients were given lengthy pretrial counseling. This was followed by three eight-hour MDMA sessions, each with two therapists present (most psychedelic therapy sessions involve two therapists, one male, one female). For a week after each session, for integration purposes, there was daily phone contact and a weekly in-person meeting.

“Almost immediately,” Thompson says, “I was shocked by the access I had to my memory. I started recalling parts of the experience I didn’t remember. I really went deep. It was completely cathartic. The next day [after just one session] the nightmares were gone. I was glowing and extroverted—for the first time since getting blown up. MDMA gave me back my life. I hesitate to use the word *miracle*, but I’d definitely call it a sacred molecule.”

And Thompson wasn’t the only subject to find relief. Mithoefer’s patient population included war veterans, crime victims and child abuse victims. Although he has yet to publish his data, Mithoefer has already presented it at conferences, saying, “With MDMA (instead of placebo) we had a very

clear reduction of PTSD—well into statistical significance. And it’s been a year or more after the last MDMA session—in some cases up to five years—so the effects appear to last, at least for many of the people. I think the treatment holds a lot of promise.”

Doblin will go further. “Eighty-three point three percent of our patients saw their PTSD cured. It took 22 years to get this study done. If that’s all MAPS ever does, it’s enough.”

Thompson goes the furthest. “I think MDMA is a gift to mankind. I think every vet, when they leave the service, should go through MDMA therapy. I think it should be part of the formal discharge process.”

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It is late August. The phone rings. Allan is back in town, and he has quite a cocktail in mind. The next day Mara, Marilyn and Allan are again assembled in the green room. Allan has brought LSD, MDMA and marijuana. LSD is one of the most powerful mind-altering substances ever discovered. The fear is still that a bad trip could increase Mara’s anxiety, but Allan explains, “When MDMA combines with LSD, it can soften the experience, smooth out the overwhelming visuals and help maintain a train of thought.” He also says marijuana deepens the trip, allowing them to use a lower dose of

the psychedelic. Mara is game. At 4:20 P.M. she swallows 300 micrograms of LSD.

By six P.M. Mara says that not much is happening. At 6:30 she wants to try more LSD, but 300 milligrams is already a substantial dose. Allan decides to go with the MDMA instead. An hour later Mara’s pain has diminished slightly but is still not completely gone. At eight P.M. Mara smokes pot through a vaporizer. Within minutes she begins to shake. Tremors are now ripping through her body.

“The pain,” she says, “it’s burning, it’s burning. But it’s amazing how good the rest of my body feels.”

Not much happens after that. At nine P.M. Mara wants to go to sleep. The session is over. Marilyn can’t hide her disappointment.

“No glorious cure,” she says. No dramatic end to the pain, no spark of enlightenment and no talk of what to do next.

A week later Mara tells her nurse she’s losing her resolve. “I’m worried about my parents,” she says. “I suck at good-byes.” A week after that her will has broken. “I can’t do this anymore. I want to go fast.” But there is one thing she wants to do before she goes—more MDMA.

That session takes place in early September. At 2:35 P.M. Mara lies in bed, stares at the angels and swallows 135 milligrams of MDMA. An hour later she doubles down and takes another pill. Soon afterward, her breathing calms, the spasms subside and her pain is gone. By 4:30 Mara is alert.

“Call Dad,” she says.

Marilyn and David Howell divorced years ago, but David lives in the area and has always been close to his daughter. Most nights he comes by and reads to her. Most nights Mara worries about him, worries about him more than she worries about her mom. Tonight, the moment he arrives, she starts to well up.

“It’s so special,” she stammers. “I get to have my mother and father with me....”

But Mara can’t finish the sentence.

Instead, she decides, if there was ever a time for indulgence.... She sends her father to the store for chocolate. Marilyn goes to the kitchen for a moment. With her parents out of the room, Mara looks at Allan and starts to cry.

“I’m their only child....” But she can’t finish that sentence.

David returns with Dove bars. Such a glorious indulgence. The music is lively. The Temptations are singing “My Girl,” and Mara wants to dance. Her mother lifts one arm; her father takes the other. They move her body to the beat, swaying in time, one family together, one last dance. Finally Mara can finish that sentence.

“How beautiful it is to die,” she says, “with my mother and father with me.”

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It’s a cold October night in 2009. Rick Doblin is in his kitchen, eating dinner with his wife and their three children. He’s telling a story about the time Lilah, his 13-year-old daughter, won a writing contest at school that was sponsored by DARE (as in, “DARE to Keep Your Kids Off Drugs”). His youngest, Eliora, 11, was concerned about him. “She thought everything was going wrong

in my life," he remembers. "My teenage son wasn't doing drugs. My eldest daughter had just won a DARE contest. She took my hand and looked me in the eye and said, 'Daddy, I don't want to do it now, but in the future, I promise, I'll smoke lots of pot.'"

Then the conversation turns to Mara Howell and her treatment. Because the psychedelic community is small, Doblin has heard about Mara's story. "I wish it was legal," he says, "but I like the fact they're doing it in the home, that it's integrated into her hospice care, that they have co-therapists and are not limited by treatment protocols to one substance at one specific dose. They're using the entire psychedelic tool kit at the levels the situation demands. That's the future."

How long until we get to the future is another open question. The majority of current research is in phase II trials, but phase III trials are required to actually legalize these drugs. These are multi-centered trials with large patient populations. The main reason trials take so much time has nothing to do with the government. "The greatest problem," says Grof, "has always been recruiting patients." Doblin points out that while a few scientists may be aware that a psychedelic sea change has occurred, that information has yet to trickle down to mainstream doctors. But it will, and soon.

Doblin finishes his dinner in a hurry. He needs to pack. Tomorrow he leaves for Israel, where he's consulting on a PTSD/MDMA study, and then to Jordan, where—"Talk about peace in the Middle East," he jokes—they're doing more of the same. On his way out of the kitchen he tells a story about an aerobics class he used to attend, where the teacher always showed up stoned and encouraged her students to do the same. His 11-year-old interrupts him.

"But, Daddy," she shouts, "I don't want to do stoned aerobics."

Doblin shakes his head and smiles.

"Story of my life," he says.

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An hour after Marilyn and David dance with their daughter, the ecstasy begins to wear off and Mara's symptoms return. Everyone in the green room tries to figure out what to do next. MDMA's effects can be prolonged, so some psychedelic therapists will provide ongoing low doses during life's final stages

both for pain relief and lucidity. Marilyn and Allan go a different route. They decide to alternate sedation days with drug days, for what they believe is the maximum physical, emotional and spiritual benefit. On his way out the door, Allan leaves enough MDMA for another session.

Mara spends the next day asleep. She can no longer eat or drink. The following morning Marilyn can't wake her, but her daughter's pain is obvious. At noon Mara awakens slightly. Marilyn asks if she wants more MDMA. It takes Mara a long time to answer.

"Yes," is all she says.

Marilyn puts a tablet under her tongue. Mara falls back asleep. After two hours her breathing steadies and her muscle spasms cease, but Mara still isn't awake.

Marilyn calls Allan for advice, and he suggests giving her a second tablet. Marilyn takes his advice, but two more hours pass and Mara remains comatose. Marilyn calls David and tells him to come over. When he arrives, she says, "I don't think she's going to wake up again."

They spend the next few hours holding their daughter's hands, telling her stories. Then Marilyn is seized by a peculiar notion. On his deathbed Aldous Huxley had himself injected with LSD, believing the drug would facilitate "a good death." His wife, Laura, administered the dose. A few weeks back Allan had dropped off a copy of Laura Huxley's *This Timeless Moment*, her memoir of Aldous's life and his passing. Marilyn picks up the book and begins to read aloud.

"All too often, unconscious or dying people are treated as 'things,' as though they were not there. But often they are very much there. Although a dying person has fewer and fewer means of expressing what he feels, he is still open to receiving communication. In this sense the very sick or the dying person is much like a child: He cannot tell us how he feels, but he is absorbing our feeling, our voice and, most of all, our touch.... To the 'nobly born' as to the 'nobly dying,' skin and voice communication may make an immeasurable difference."

Nobly born is a phrase from the Tibetan Book of the Dead, which argues for the great importance of one's state of consciousness and transcendence at the time of death. Back then Marilyn didn't know what to think. She was in the green room, beneath "those fucking angels," beside her dying daughter. "And for reasons I still can't fathom," she says, "I'm reading to her from Laura Huxley."

And then her daughter starts to move.

Mara slides her right hand out from beneath the covers and places it inside her father's palm. Then she lifts her chin, opens her eyes and turns straight toward him. In the past year she has lost so much weight that her skeletal aspects have been showing through, but in that moment they vanish. David watches the transformation and can't believe what he's seeing.

"She became angelic," he says later. "She looked radiant." He also says, "I knew exactly what was going on. She held my hand for about 15 seconds, and then

this look of absolute relief came over her face. Absolute peace. And then she died."

David had experimented with drugs in his younger days and was never too keen about Mara's decision to try psychedelic therapy. "I'll be honest, I had a lot of misgivings about the whole thing," he says.

But not anymore.

"It was a gift," he says, "to get to spend that little bit of time with her."

And her death?

"I don't know what to say about that. I think her death was a miracle."

Special thank-you to Marilyn Howell, who is completing her own memoir of these events, Honor Thy Daughter.

