Skiing in my family was a completely normal recreation, when available, passed down to me by my father; the women in my family being more likely to favor ice skating. Norwegian miners had brought skiing to Butte, and working-class kids, as well as the mine bosses and their families, kept it going. Evel Knievel, for example, who was raised by a grandmother who happened to be a friend of my own maternal grandmother, had excelled in ski jumping at Butte High and worked as a copper miner before becoming a famous motorcycle daredevil. My father had also learned ski jumping at Butte High, and it was he who taught me to ski when I was about twelve. It wasn’t difficult: Get to the top of the hill, either by rope tow or, in the early days, climbing sideways step by step, bend your elbows and your knees, point the skis downhill, then lean on into it—and woe to anyone who failed to get out of the way, because swerving or stopping were not among my secure skills.

I imagine that this is more or less how he learned ski jumping at Butte High School—get up, go down, get up again. No special clothes were required in those days; we wore flannel pajama pants under our jeans and layered sweaters under our Windbreakers, since parkas, so far as I know, were not widely available to civilians. Yes, there was an aspect of the suicidal in the way my family approached skiing. But that was part of the attraction, as I wrote in my journal a little before we left Lowell and just after a ski trip to Vermont, though I was embarrassed to mention anything as trivial as a sport in those pages otherwise reserved for the most high-minded speculations:

I have become an ardent devotee of a sport, something unexpected. I love skiing. There is no sport comparable to it, no pastime or entertainment rivals it. In perfect honesty I can say the greatest pleasure (as distinguished perhaps from happiness) I have ever ex-
experienced has been while skiing. What I like is the speed and, even more keenly felt, the danger.

It must have been Uncle Dave who suggested the trip, because otherwise, given the available information technologies, I don't see how we could have known that the snow was still deep on Mammoth at the beginning of May. Dave, my mother's only brother, was my favorite of the two surviving uncles, always quick, sarcastic, and teasing. He thought it was hilarious, for example, on one of the occasions my mother and siblings and I drove the seven hours up Lee Vining for a visit, to let me drive his California Highway Patrol car while he sat in the passenger seat, just to see the looks on the faces of other drivers when they noticed that a sixteen-year-old girl with a ponytail had apparently seized state power, or at least one of the state's own cars. All that avuncular jolliness would come to an end a couple of years later when his oldest son, who was about eleven at the time, got swept off in a spring-swollen river and drowned. Dave got mean after that, starting to use words like "nigger" and "spic" to describe the people he stopped on the highway and eventually becoming estranged from his mother, his sisters, and the rest of us.

I brought up the possibility of a skiing trip sometime in April in a conversation with Dick, who was the only one of my little circle of friends who showed any interest in outdoor adventure. He had thrilling stories to tell of road trips and hitchhiking, ranging all the way down to Mexico, undertaken without any adult participation. One day, in a burst of unwonted expansiveness, possibly inspired by the approaching end of the school year and all the associated tests, I mentioned that I had an uncle who lived not too far from Mammoth, and the plan moved on from there. Dick would have to do the driving or most of it, since, whether due to inat-
tention or sloth, I still had only a learner's permit. My parents, or maybe Dick, provided the car, a decrepit black Volkswagen, and my brother came along with us, either enlisted as some sort of chaperone or because he was eager to ski—possibly both. I didn't know Dick well and suppose I could have prevailed on my mother to do the driving, but I was exhilarated by the idea of traveling a long distance on the open road without any grown-ups in the car.

We hadn't gone thirty miles beyond L.A., though, when things began to go wrong. Dick had been excited by the prospect of the trip and still friendly enough when he arrived at our house in the morning. But once we got going he seemed to wrap himself up in some kind of personal rage, as if he were being abducted to a destination he didn't approve of by people he found morally objectionable. If I'd known him better, or if I'd had the confidence and skill, I might have said, "Hey, what's the matter? This was your idea too." But his anger shamed me into silence, suggestive as it was of some sort of intimacy. As far as I had ever been able to determine, anger was the principal emotional bond between husbands and wives and possibly the only thing that held them together. How would they maintain their mutual interest without the daily drama of resentful silences, screaming arguments, and vicious put-downs? But between me and this boy, whom I had never even talked to alone except to plan this trip and who was, after all, a half year behind me in school, anger was shockingly inappropriate and totally mortifying.

So a very short way into the trip I revised my expectations downward from comradely adventure to another long, solitary exercise in endurance. Any anger I felt was directed not at my inscrutable companion, but at Joseph Conrad and all the other novelists who had been urging me to reach out, take a chance, carpe diem, and so forth. I should have stayed home and read
Kafka, whom I'd just discovered in a paperback bookstore and found agreeably disorienting. The pleasures of human company had been exaggerated, I realized, like "only connect," which may suggest something cozy like hand-holding, but should more accurately bring to mind the hazard involved in putting one wet hand on the anode while the other reaches for the cathode.

I dealt with my disappointment by sheer force of mind. I erased Dick. I suspended belief in him. Who knows if any other person really exists? The great advantage of my slippery, on-and-off form of solipsism was that I did not have to live with the burden of other people's inexplicable anger or rejection. During the next few hours I gave myself over to the remorselessly flat, dun-colored Mojave Desert and the familiar question: What is the point? I mean, if you tried to put it all together—the imaginary numbers and probably equally imaginary electrons, the mystery of antimatter, my mother's unending frustration, The Magic Mountain, my first exposures to rock and roll, and all the other data coming my way—what did you get? Because this is what it would mean to find "the truth"—to discover or fashion a mental vessel capable of containing the whole thing in its entirety, every part of it, every loose end and ephemeral impression. In other words, I was looking at the job of condensing the universe into a form compact enough to fit in my head, maybe as some kind of equation or—who knows?—an unforgettable melody or gorgeously intricate mandala. This was the great challenge before me, to make things small enough to get a grip on, while leaving nothing out.

But the desert stood in the way of this project. It was too big to be compacted down into anything manageable, too smooth and slippery to be stored in words. I wanted to file it under "terrain," for example, and move on to some livelier topic, but whatever category I tried to squeeze it into, the desert just kept leaking out and forcing itself on my attention. Even numbers seemed to evaporate here, because there was nothing around to count. That whole long ride, no one spoke unless it was my brother in the backseat, demanding a restroom or a Coke.

We must have been a pretty surly bunch when we got past the desert and into the mountains and arrived at the confusion of Dave and Gina's little house in Lee Vining. They had three kids then between the ages of about three and nine and, I seem to recall, some dogs. There were hugs for my brother and me and handshakes for Dick. I poured the milk and set the table while Gina fried up burgers or whatever we ate, all crowded around the kitchen table. All this has a certain glow in retrospect, because it was the last time I would see Davy, the oldest of these cousins, alive. There was some talk about the snow on Mammoth, which Dave assured us was still adequately deep despite the late date. Then we went to bed, my brother and Dick on the floor of my male cousins' room, me in the same room as my three-year-old cousin Cathy.

I woke in a sleeping bag to a sense of alarm and the faint scent of urine from Cathy's direction. I knew I should get straight up if I wanted to take a shower before a line formed for the bathroom, because this was to be the big day of skiing, but I was impaled to the floor by the residue of a shocking dream. The dream consisted of a single image: the human brain, my brain in fact, projected onto a screen in what appeared to be a classroom. There it was—the whole thing, the only instrument I had, all that I really was, in fact—a densely corrugated bulb attached to a stem. And this is what I expected to contain the universe in? Just in case the message wasn't clear enough, there was a caption or maybe a voice-over, saying: This is what you are—a sac of tissue enclosed in membrane, a thing like anything else.
Ordinarily I was well defended against this kind of insult, which, as I would later come to understand, has been taunting Western thinkers since the rise of science and the alleged “disenchantment” of the world: the idea that all lofty thoughts and noble ambitions aside, we are nothing but clusters of particles and charges, tissues and cells. This is the crushing downside of science, at least for those who get so bedazzled by it that they lose sight of their own subjective existence. Why should we—the observers and scientists—be different, in any important way, from the objects we observe? It was my intermittent solipsism that generally saved me from the horror of this thought and, at some hard, rational kernel of myself, saves me still. If someone were to come along and say, “You, Barbara, are nothing but a collection of atoms and cells,” I would have said, “Fine, but understand that those cells and atoms are themselves nothing but concepts in my mind. And so, for that matter, are you.” A solipsist can never be reduced to “nothing but”—“nothing but” atoms or electrons or synaptic firings—because she knows that all these are flickerings of the mind and that she alone is mind.

But in my weakened state, exhausted by the daylong effort to levitate out of that tense and silent car and then by a lack of sleep, I could not summon the solipsistic arrogance to refute the dream. And the worst thing about it, which I could not even acknowledge in my journal, is that the dream-brain was pink, not gray, lacking only a fringe of pubic hair to identify it as a probable vulva. So this is what I was—not just a thing, an object, an intersection of particles in motion—but a big, dumb, multilobed reproductive apparatus, destined to have babies and die, exactly like everyone else. I had done what the poets and novelists were always urging me to do, I had reached out to another human with some companionable intent, and look what happened. My entire life’s quest for

“the truth” was probably just another example of what Freud dismissed as “sublimation”—an effort to project base genital longings onto a cosmic screen. What made me imagine that I might ever know the hidden truth behind all things or that such a truth even existed? I lay there watching for stirrings in Cathy’s bed, facing the possibility that my parents had been right all along, that what you see is all there is and all you’ll ever get. The answer to the question put to me by the Mojave Desert now rang clear: There is no point, so just get up and get dressed and get on with the agenda.

We got to Mammoth Mountain just as the chairlift opened. I don’t know about Dick, but neither my brother nor I had ever skied on a serious mountain before, compared to which New England has nothing to offer except what amount to foothills, suitable for the display of fall foliage but offering no life-threatening thrills. Mammoth, in contrast, seemed to erupt right out of the earth, and had in fact been created by a volcanic blowout a mere fifty-seven thousand years ago, which might as well have still been going on, so fiercely were the snow-covered peaks, some of them actually called “minarets,” puncturing the deep blue sky all around us. I mostly stuck with my brother, a sturdy enough, self-reliant kid, but who was after all only thirteen, and it seemed wiser to keep him in sight than to spend the last few hours of the day searching for him on unfamiliar trails. Other than this vague sense of sororal responsibility, though, I felt not the slightest connection to my species. The point was to go up and down, up and down, at maximum speed, celebrating and reenacting the violence that had created the mountain in the first place.

It was an unnaturally warm day to be skiing, maybe all the way up to seventy degrees by midafternoon, so we took off our jackets and tied the sleeves around our waists. We couldn’t stop, nor was it easy to remember what our lives had been like before we strapped
our skis on that morning. Of course the chairlift made stopping unnecessary, returning us again and again to the brink of disaster, the ecstatic liftoff, and then—for minutes on end—the obliteration of everything complicated and demeaning in the perfection of speed and snow. Only when the sun began to sink behind the ridge and the wind got cold did we regroup and think about leaving. The idea, at least as I understood it, was to drive straight back to L.A., arriving in the early hours of the morning.

But we got no farther than the town of Lone Pine, where we parked at the side of the road and spent the night in the car. My brother stretched out in the backseat while Dick and I sat straight upright in the front side by side like two crash test dummies, since the seats in this old car did not recline. No dreams intruded, and no cops knocked on the windows to check on whether we were runaways.

Why did we spend that night in the car? The question is important, because if we had driven straight on to L.A. I would have ended the night in my bed and none of the rest might have happened. I would have gone back to being a normal, shy, alienated adolescent and this book could end right here or dribble off into a standard coming-of-age story, culminating, within a couple of decades, in the coffin of “maturity.” For years I filled the gap in the narrative with car troubles: The car must have broken down; we couldn’t get it fixed till the morning; we had no money for a motel. The fact that I couldn’t remember any details of this supposed car trouble—any sputtering, any towing, any long wait at a service station—I attributed to my lack of interest in all things car-related. But when fifty years later I asked my brother about it, he couldn’t remember any mechanical problems either. In fact, one of the few things he could remember was that Dick had impressed our uncle Dave with his knowledge of cars.

It wasn’t too easy to track down Dick—the old man Dick, that is—because I hadn’t remembered his name right, but I did recall that his mother had been a published writer, and that led me eventually, through the Internet and a book about her, to a voice on the other end of the phone who claimed to remember me, some of our mutual friends in high school, and our trip in 1959. Like my brother, he denied any car trouble and insisted that there was nothing odd, at least not for him as a teenager, about sleeping in a car on the side of the road. He had done so many times during his adventures with other boys, or even slept outdoors on the ground. The problem was, he told me, that I had been overly “sheltered,” even for a girl. Before I could muster any sort of protest, he was already off on an old man’s tirade on the subject of “young people today,” who, though strikingly overindulged, are mostly to be found in violent, drug-dealing gangs.

His remark about my having been “sheltered” may offer a clue about what made Dick so angry almost from the moment we started driving out of L.A. I think something must have happened offstage, just as we were about to set out on the trip, perhaps when I ran back into the house to get something, leaving my father alone for a few minutes with him, and my guess is that what happened is that my father took the opportunity to warn Dick against any attempts at tomfoolery. Why this sudden concern for my virtue from a parent who had had me to that moment shown no hesitation about sending two of his children off on an overnight trip with a stranger to engage in a risky sport? My guess is that my father was alarmed by the mere sight of Dick, who was not the scrawny teenager he may have been expecting, but a darkly good-looking young man at least an inch taller than my father. Dick’s looks were not lost on me, but I didn’t aspire to be his or anyone’s girlfriend. If anything, my secret, inadmissible craving
many experiences of dissociation finally made themselves useful; a world drained of referents and connotations—the world as it is—held no terrors for me.

The town of Lone Pine offered no complexities to explore, and at the time very little even in the way of side streets, so I just headed east to where the sky was lightest. The street I was walking on held a few grudging concessions to commercialism—an auto parts store, for example—but nothing was open and there were no humans or moving cars to be seen. I moved through a haphazard assemblage of surfaces, still gray in the opalescent predawn light. The amazing thing about the world, it struck me then in my radically dissociated state, was that I could walk into it. And thanks to my history of dissociation, which had accustomed me to strange and scary places, I was not afraid to go right on into it, one foot in front of the other. In ordinary life, we don't make enough of this three-dimensionality. We don't pause to appreciate the softness of air and the way it parts before us without our having to resort to a machete or shovel. The fact that the world as we find it is permeable and that even slight muscular exertion can lead to sudden changes in scene, as from rounding a corner or climbing a hill—well, we just take it for granted. But on this particular morning I was sufficiently drained of all conventional expectations that it seemed astounding just to be moving forward on my own strength, unimpaired, pulled toward the light.

In the next few minutes, on that empty street, I found whatever I had been looking for since the articulation of my quest, or perhaps, given my mental passivity at the moment, whatever had been looking for me. Here we leave the jurisdiction of language, where nothing is left but the vague gurgles of surrender expressed in words like "ineffable" and "transcendent." For most of the intervening years, my general thought has been: If there are no words for it, then
don't say anything about it. Otherwise you risk slopping into "spirituality," which is, in addition to being a crime against reason, of no more interest to other people than your dreams.

But there is one image, handed down over the centuries, that seems to apply, and that is the image of fire, as in the "burning bush." At some point in my predawn walk—not at the top of a hill or the exact moment of sunrise, but in its own good time—the world flamed into life. How else to describe it? There were no visions, no prophetic voices or visits by totemic animals, just this blazing everywhere. Something poured into me and I poured out into it. This was not the passive beatific merger with "the All," as promised by the Eastern mystics. It was a furious encounter with a living substance that was coming at me through all things at once, and one reason for the terrible wordlessness of the experience is that you cannot observe fire really closely without becoming part of it. Whether you start as a twig or a gorgeous tapestry, you will be recruited into the flame and made indistinguishable from the rest of the blaze.

I stopped at some point in front of a secondhand store, transfixed by the blinding glow of the most mundane objects, teacups and toasters. I could not contain it, this onrush: The dream in my uncle's house had been right about that. Nothing could contain it. Everywhere, "inside" and out, the only condition was overflow. "Ecstasy" would be the word for this, but only if you are willing to acknowledge that ecstasy does not occupy the same spectrum as happiness or euphoria, that it participates in the anguish of loss and can resemble an outbreak of violence. At no time did I lose physical control of myself. I may have leaned against a building at some point, but I never fell down. Whatever else was going on—whatever cyclones raged in my brain—the neuromuscular system remained functional throughout.

There is a gap here, a brief period of overload in which no long-
term memories were laid down. Somehow I got back to the car, too stunned to feel anything but hunger. In the next scene I can recall we are sitting in a diner eating breakfast. Actually we could afford to buy only one breakfast, which my brother ate while Dick and I each made do with a piece of his toast. I was astonished by the multicolored busyness of the restaurant, the impeccable logic of the menu, the waitress moving purposefully from one table to the other. The mundane was back to its old business of turning out copies of itself—one moment pretty much like the one before it—but anyone could see that the effort was hopeless, that the clunky old reality machine would never work the same way again. I knew that the heavens had opened and poured into me, and I into them, but there was no way to describe it, even to myself. As for trying to tell anyone else, should anyone ask where I had disappeared to at dawn—what would I have said? That I had been savaged by a flock of invisible angels—lifted up in a glorious flutter of iridescent feathers, then mauled, emptied of all intent and purpose, and pretty much left for dead?

Over breakfast, Dick suddenly became animated. Spreading a map out on the counter, he started making the case for a scenic detour into Death Valley on our way south. He had been there before and it was on the way home or near enough, so we might as well go. If he had proposed a tour of the circles of hell, I would have agreed to that too—let the good times roll. We could do anything, as far as I was concerned: Drive over a cliff or just sit in the diner until they asked us to leave. In my post-Damascene moment, these were indistinguishable options.

My memories of the rest of that day, of the things that actually happened, are pretty badly decayed, if they were ever formed in the first place. We drove south, stopping somewhere on the way to use our last couple of dollars on milk shakes, and then turned
east into Death Valley, which made the Mojave Desert seem lush by comparison. After a while we turned north onto a rugged dirt road, as if we had a destination. There was a stop now and then when we'd get out of the car and peek down into an abandoned mine shaft or just stumble around in the creosote and dust, flinching against the afternoon sun. Death Valley wasn't only incomprehensibly large, it was actively hostile. Maybe this was just part of the natural evolution of exhaustion, but the insane beauty of the morning had drained completely away, and what remained was not easy to look at. Everything, every rock and shrub, came framed in its own outline of black, like a formal rebuke of heartbreaking severity. I strained to make the dead world burst back into life, but no effort of mine could revive it. Every now and then the mountains to the east would form themselves synesthetically into a line of music, and ever so briefly try to pull me back into their dance, but then they would just as suddenly harden back into indifference. The function of the desert was to cauterize an open wound.

I should have died that day, or—to give it a nice Buddy Holly ring—that should have been the day that I died. I don't mean by this that the rest of my life has been a weary slog; far from it. But the story seemed to end here, or at least that was my strong sense for years to come, into my early twenties anyway, when I carried on with the mechanics of living in the jaded spirit of someone who knows she has overstayed her visit: seen all the sights and can find no further way to make herself useful. A girl searches for "the truth." She tries every avenue she can think of—poetry, philosophy, science—all the while remaining open to odd perceptual alterations for whatever clues they may hold. She even wrestles with the question of whether she would want to know it even if the truth turned out to be ugly or in some way ignoble, even if the knowledge ruins her life forever, and decides that, yes, she would want to know. Then one day, apparently selected on the basis of incidental physiological factors like exhaustion and hypoglycemia, the truth arrives in all its blinding glory, but with two conditions attached to it: one, that you can never speak of it, even to yourself, and two, that you can never fully recapture it ever again.

At least those were the terms as I understood them at the time, and if it took years before I questioned them, that was because I saw them as disabilities peculiar to myself rather than as rules that could be challenged like any others. I could not speak of it because I lacked the words, and I could not recapture the experience any more than a burned-out filament could be used to light a fresh bulb. Something had happened, but it seemed to have happened to me rather than for me or for my edification. Maybe, from some unimaginable vantage point, I had served my purpose, which was to let this nameless force flow through me so that a circuit could be completed and the universe, for a moment anyway, made whole again. Having accomplished that, there was no good reason to go on.

In fact I should have died that day, and rather spectacularly, if my old traveling companion Dick is to be believed. Toward the end of my call to him in 2011, when I had begun to make sounds preliminary to sign-off, like "hmm" and "well, then…," he said, in a suddenly energized voice, "I have a secret." He said he meant a secret about our long-ago skiing trip, and asked if I could remember our detour into Death Valley.

Of course I could, I said, trying not to display an unseemly level of interest. Well, there was a reason for that part of our trip, he told me now. He'd been to Death Valley with some friends, about a year before our trip. They'd poked around ghost towns and abandoned mine shafts and come across a box of unexploded dynamite, which they'd left where they found it. Then, at some point during the trip with my brother and me, Dick had fastened on the idea of
retrieving the dynamite and taking it home with him. Hence our apparently rambling tour of Death Valley, where he had finally located the treasure, probably while my brother was sleeping in the car and I was lost in a personal existential zone. It was really old dynamite, Dick told me with evident pride, so old that some of it was oozing liquid nitroglycerine, which, he didn’t have to tell me, is one of the most improbable chemical compounds there is: just the ordinary ingredients of living things—carbon, oxygen, nitrogen, and hydrogen—but bonded together in such an unnaturally painful arrangement that it flies apart at the slightest vibration.

What did he want the dynamite for? I asked, imagining for a moment that I was dealing with some kind of a terrorist. Oh, nothing much, he said. He was just “a dumb kid” who liked to take sticks of dynamite up to the fire road that bounded the city and shoot at them with a shotgun. It was better than fireworks. So that’s why we had driven home from the mountains and the desert, on bumpy dirt roads and eventually crowded highways, with a box of unexploded ordnance in the trunk.

This is not an impulse I can claim to understand. Not only am I fairly fastidious about avoiding injury to others, but I’m afraid of loud noises and have been since early childhood, when a popped balloon could ruin a birthday party for me. Which probably explains why the next thing I said was so stunned and lame. Like a social worker who has just realized that the client sitting across from her is not only out of his mind but probably armed, I ventured to Dick that he seemed to have been a little “self-destructive” in his youth, which was stupid because of course self-destructiveness was not the issue here. The issue was depraved indifference to the lives of others, in particular those of my brother and myself, not to mention anyone who might have been on the highway at the same times as us or live near the fire roads in the L.A. hills. I had imagined that

I was the consummate teenage solipsist, capable of deleting people at will from my field of consciousness, but he had apparently had no qualms about actually killing them if they happened to be in the way.

However inept and patronizing my remark about being self-destructive, it didn’t deserve what came next. He blew up, like the chemical compound under discussion. How dare I attempt to “psychoanalyze” him? Who did I think I was? He hated that kind of talk, he hated Freud (although nothing even vaguely “Freudian” had come up), he hated people who talked that way, people who thought they were better than other people. Now he was even angrier than when he had gone off on “young people today,” suggesting that he had been subject to some unwelcome therapeutic interventions in the past, for which I was now taking the heat. There was nothing to do but thank him, in the obligatory, journalistic way, for talking to me, and hang up, grateful for the passage of years and the breadth of the continent that separated us.

At least I found out from that phone call why we had spent the night in the car in Lone Pine. If we had driven straight home from Mammoth we would have passed Death Valley in the dark of night when it would have been impossible to conduct a search. Maybe Dick’s entire motivation for going on the trip was to get to Death Valley and the dynamite. Maybe there had been no incident with my father and Dick hadn’t been angry at anyone in particular at all; it was just that once he got behind the wheel he saw no reason to keep up the pretense of friendliness. If that was the case, I would have to say I at least admire his determination. I was on a secret mission and he was on a secret mission, and our paths just happened to coincide. My mission was to find the truth, the complete and absolute truth. His was to experience the maximum possible fireworks, even at the risk of being extinguished himself. You don’t need any advanced training in the detection of metaphors to see a parallel here.
CHAPTER 12

The Nature of the Other

It took an inexcusably long time for me to figure out that what happened to me when I was seventeen represents a widespread, if not exactly respectable, category of human experience. For what they are worth, some surveys find that almost half of Americans report having had a “mystical experience,” and if the category is expanded to “religious experience,” the number is even larger. In a culture where a routine observation can be judged “awesome” or an unusually good meal deemed a “religious experience,” I doubt that such surveys have much to tell us except that many otherwise ordinary people have had powerful and unusual experiences for which they cannot easily find words. But every now and then I come across something that rings true to me, such as this, which I should mention is from fellow writer and atheist Daniel Quinn:

Everything was on fire....Every blade of grass, every single tree was radiant, was blazing—in candescent with a raging power that was unmistakably divine....But there was no violence or hatred in this rage. This was a rage of joy, of exuberance. This was creation’s everlasting, silent hallelujah.

Of course all such experiences can be seen as “symptoms” of one sort or another, and that is the way psychiatry has traditionally disposed of the mystically adept: The shaman was simply the local schizophrenic, Saint Teresa of Ávila a clear hysteric (although it should be noted that she was also an able and busy administrator). The Delphic oracles may have been inhaling intoxicants; all of the great Christian mystics showed clear signs of temporal lobe epilepsy; indigenous people possessed by spirits are succumbing to “regressive id drives.” A recent paper from Harvard Medical School proposes that the revelations experienced by Abraham, Moses, Jesus, and Paul can all be attributed to “primary or mood disorder—associated psychotic disorders.”

It’s also possible that some reported mystical experiences never happened at all. Paul’s vision on the road to Damascus seems sincere enough—at least if it’s true that he was temporarily blinded and rendered mute—but later, when he starts boasting to the Corinthians about his ability to fall into trances and speak in tongues, it’s hard not to suspect some jostling over status in the emerging Christian hierarchy. I have always been a little suspicious as well of Saint Hildegard of Bingen’s career-advancing revelation that she should found a convent—which she did indeed go on to do. Between the possibilities of mental illness, fakery, and opportunism, we are on slippery ground here.

There has been a certain amount of scientific interest in mystical states in recent decades, piqued by psychoactive drugs in the sixties and later spurred by the development of brain-scanning techniques showing, for example, metabolic changes associated with prayer and meditation. But for subjective accounts of naturally occurring, as opposed to drug-induced, experiences, the most useful work remains the psychologist William James’s chapter on “Mysticism” in The Varieties of Religious Experience, now more than a
century old. I wish I had found it many years ago, but I acquired the book just in the last decade, and then for narrow historical research purposes, only turning to the "Mysticism" chapter in the last couple of years, when I fell upon it with almost prurient interest. Here are more than a dozen personal accounts of "cosmic consciousness," "the ineffable," even a consuming "fire," and James judges none of them insane or unreliable. In fact, he seems to respect his informants, who include philosophers and psychiatrists, women and men, atheists and believers, and, it has been suggested, possibly also James himself, disguised as an anonymous source.

The accounts vary widely in emotional tone, from reported bliss to terror, but what strikes me on closer reading is that so many of them involve an encounter with some other form of being or entity, usually identified as "God," though sometimes more neutrally as "the Infinite" or "a living Presence." Neuroscientists today see anomalous mental experiences as entirely internal events, involving only the interactions of neurons and networks of neurons. In the subjective accounts curated by America's first psychologist, however, whatever happens to a person in a mystical experience does not seem to be the work of that person alone.

I could not seriously entertain the possibility of an "encounter" in my own case until two things had happened. One is that I had emerged, in my early twenties, from solipsism. Starting on that night in the lab with Jack, when I got the idea that there was a mind behind his plain face, when I took the further imaginative leap to sense the human torment behind the headlines, and then, beyond any doubt, when my own children arrived in the world, I came to accept the idea of other minds as rich, complex, and tangled with emotion as my own. Once you have accepted the reality of other human minds, you open yourself up, for better or for worse, to the possibility of still other locations for consciousness, whether in animals or in things normally thought of as "things."

The other development that nudged me in the direction of acknowledging an actual encounter was that in my early fifties I rather abruptly immersed myself in nature. That's a dumb, anthropocentric word—"nature"—implying as it does that what is not man-made is somehow residual, which was far from the case in my new setting. For almost twenty years I had endured the aesthetic deprivations of a lower-middle-class suburb so that my children could go to the town's first-rate public schools. Then the kids grew up and moved out and, independently of that, my second marriage came to an end. I made a midlife dash to Key West, where I had a few friends from our past vacations, and soon took up with a good-looking local who shared my love of the water. We liked our Old Town apartment building well enough, but eventually, worn down by the all-night pool parties in the guesthouses next door, decided to look for a place of our own "up the Keys," where the houses were cheaper and the nights still as death.

The second, and last, place we looked at was in Sugarloaf Key, a patch of land jutting out into the Gulf of Mexico from the lone highway connecting the necklace of islands that make up the Keys. We drove to the end of the paved road, then onto a dirt road cutting through a low jungle of indigenous buttonwoods, poisonwoods, sea grapes, and thatch palms. At the end of that was a pleasant gray house linked to the water by a boardwalk and a dock, and at the end of the dock was a kind of revelation: more than 180 degrees of turquoise water dotted with a series of tiny emerald mangrove islands. Live here, said a voice from the blue-green vastness—whatever it takes.

It took far less than it might have, because the former owner had the interior decorating tastes of a serial killer. All floor space
was occupied by mounds of old newspapers, receipts, porn magazines, and crusty Styrofoam containers. We had the place cleaned out and painted, hauled up some used furniture from a store in Key West, and settled back to savor the gaudy sunsets and try to figure out what kind of a wild place we were settling.

Down in Key West, you can imagine you are in a patch of urban civilization, slightly shiftless and louche, but well stocked with restaurants, supermarkets, gossip, and thick human drama. In fact you could live your whole life on Key West, if you chose, without bothering to notice that you were on an island suspended more than a hundred miles below the Florida peninsula in the middle of the Caribbean. But on Sugarloaf there was no evading the fragility of our existence. Under us, a thin uprising of fossilized coral; to the south, the Atlantic; to the north, the Gulf. Here, you don't think of global warming just as an "issue" but as the vivid, if remote possibility of being eaten by sharks in bed.

The very idea of an Atlantic and Gulf side is a conceit more appropriate to continent-dwellers, because there is of course just one all-surrounding sea. But our side, the Gulf side, a.k.a. the "back country," is different in ways that can make town folks a little uneasy. Before moving up there, I remember talking to a sponger—that is, a man who fished for sponges in the shallow transparent waters of the back country, living for days in his motorboat—and he said a lot about the velvet silence of the tropical nights, the smooth, undulating traffic of the stingrays and sharks. But then he faltered as if there were something he couldn't figure out how or even whether to say it.

I worked, in my usual disciplined, Calvinist way, at a desk facing a wall, but the outdoors was always tugging at me. If your idea of "nature" was formed in, say, the Catskills or the Cotswolds, you may think of it as a kind of absence or quiet, a soothing alternative to highways and cities. But here there was just so much going on, especially in the spring and summer when the water cycle goes into overdrive. All day the sky sucks steam from the warm seas, dumping it back in the psychotic violence of a late afternoon squall, then finishing up with a sweet, consoling rainbow. You might get waterspouts skidding across the Gulf in late summer, miniature tornadoes that mainly bother the birds but can peel off a roof. There may be almost too much to take in at one time—a sunset in the west, the rising moon in the east, a black storm riven with lightning moving in from the Gulf. One July night we stepped outside to find the horizon ringed with at least six discrete lightning storms, each in its own separate sphere of pyrotechnics, leading my friend—a man not known for metaphysical pronouncements—to mutter, "There is a God."

Neither of us actually thought it was a "god," but I began to understand that I was being drawn into something, maybe into that very thing that the sponger had hesitated to describe. I came to think of it as the Presence, what scientists call an "emergent quality," something greater than the sum of all the parts—the birds and cloudscape and glittering Milky Way—that begins to feel like a single living, breathing Other. There was nothing mystical about this Presence, or so I told myself. It was just a matter of being alert enough to put things together, to catch the drift. And when it succeeded in gathering itself together out of all the bits and pieces—from the glasslike calm of the water at dawn to the ear-splitting afternoon thunder—there was a sense of great freedom and uplift, whether on my part or on its.

It is not always benevolent, this Presence. Oh, it can be as seductive as the scent of joewood flowers riding on a warm November breeze, as uplifting as the towering pink, self-important, Maxfield Parrish-type cumulus clouds that line up to worship the rising
sun. But then, just like that, it can turn on you. I've gone out in my kayak on a perfectly inviting day, only to find myself fighting for my life against a sudden wind and the boiling chaos of the sea. I learned to keep going when survival was not guaranteed, did not even seem likely, by uttering a loud, guttural "unhht" with each stroke of the paddle as a way of postponing exhaustion and defeat. I was not afraid of dying, because it was obvious that the Other, the Presence, whose face I could almost begin to make out in the foam, would continue just fine without me.

I know the currently popular scientific response to this kind of wild talk: that it is a mistake to see spirits in trees or to interpret certain states of mind as "encounters," and it is, regrettably enough, a mistake that we humans are hardwired to make. But why would evolution favor an innate propensity to error? Here the cognitive biologists invoke the archaic threat of animal predators. Nothing is lost if you interpret that rustling sound in the night as the approach of a lion and there turns out to be no lion there. But the opposite mistake—dismissing the sound of an approaching lion as a wind in the trees—would be fatal.

So, according to the cognitive scientists, our brains are afflicted with a "Hyperactive Agency Detection Device," predisposing us to imagine gods, faces in clouds, divine beings in rocks. This has become, in just the last decade or so, the killer argument against religion, as if we needed another one: that it is an odd relic of our evolutionary history as prey, this tendency to imagine "agents" where there are none. (Though I should mention that the ability to imagine other humans as conscious beings or "agents," rather than as, say, androids, is never attributed to an oversensitive mental "device." That ability is deemed healthy and normal.)

What the cognitive biological account tends to downplay, or rush right past in its hurry to get to a thoroughly anthropocentric conclusion, is that there actually were lions in the night, bears in the forest, and snakes in the grass. Suppose that of all the mystical experiences reported over the centuries, some actually were encounters with another sort of being or beings. Wouldn't it be wise to investigate? After all, these other beings appear to be, at least for the duration of the encounter, more powerful than a human and at least as awe-inspiring as lions. They can even leave people temporarily unhinged, as I was in the months after May 1959. Saint Teresa reported that her revelations were sometimes accompanied by "great pain" or "an agony carrying with it so great a joy" as to leave one "ground to pieces." Her contemporary Saint John of the Cross likened the Other he encountered in his mystic transports, who was presumably the Christian deity, to a "savage beast." In our own time, the science fiction writer Philip K. Dick experienced a theophany—a "self-disclosure by the divine"—which left him feeling more like "a hit-and-run accident victim than a Buddha." He disintegrated into what was diagnosed as mental illness, to the point of earning a bed in a locked psychiatric ward for several weeks. If only from a public health perspective, we need to know whether there is some sort of etiological agent at work here other than the vague pall of "mental illness."

Here is a humble analogy—some would say too humble and hence completely out of place in any discussion that touches on the "divine." Until a little under two hundred years ago, most human cultures blamed disease on supernatural forces like spirits, curses, or the wrath of God or gods. More sophisticated societies traced illness to imbalanced "humors" or impediments in the flow of qi. As late as the mid-1800s, enlightened Europeans were focusing on invisible airborne "miasmas" as the source of diseases like cholera. If you had proposed in, say, 1800 that many of the most virulent diseases are in fact caused by tiny living creatures, similar
to the “animalcules” detected by Leeuwenhoek’s microscope, your contemporaries would probably have judged you mad. It would be like suggesting that the love between people is mediated by a species of very small love bugs.

We forget now, after the easy triumph of the germ theory of disease at the end of the nineteenth century, how improbable the theory must have originally seemed. Humans had thought themselves alone on the earth, except for the animals and any spirits or gods, but we are an insignificant minority on a planet thickly populated by the invisible living beings we call microbes, leading biologist Stephen Jay Gould to call this the “Planet of the Bacteria.” Some are benign or even judged to be “good,” like *Saccharomyces cerevisiae*, which gives us wine, beer, and leavened bread. Others, like the smallpox virus or *Yersinia pestis*, the agent of bubonic plague, are vicious predators and, some argue, worthy targets for eradication.

Most accounts of mystical experiences—at least of those I have read, which by no means amount to a representative sample—insist that the Other in the encounter appears to be “living” or alive, as in “living God.” But is it alive in any biological sense? Does it eat and metabolize? Does it reproduce—an option that monotheism would seem to foreclose? Every now and then a whiff of the biological breaks through the incense-ridden atmosphere of recorded mystical thought. Meister Eckhart, for example, the thirteenth- and fourteenth-century German monk who is often considered the greatest of the Christian mystics, proposed what could be interpreted as a shockingly zoomorphic God, one whose “nature...is to give birth,” over and over, eternally, in every human soul that will make room for him. In order to prepare a perfect setting for the divine birth—a sort of nest, or as Eckhart sometimes put it, a “manger”—a person must empty his or her soul of all ego and attachments and turn the resulting space over entirely to God.

The Other who appeared in Philip K. Dick’s theophany was even more overtly creaturelike. As related in his novel *VALIS*, in which the author figures as the main character, Dick fought his way back from inpatient status by working obsessively to understand and communicate his encounter with a deity of extraterrestrial origin that is “*in no way like mortal creature*” (his italics). This deity or deities—for there may be at least a half dozen of them in Dick’s idiosyncratic cosmogony—bear some resemblance to biological creatures: They have their own agendas, and what they seek, through their self-disclosures to humans, is, according to Dick, “interspecies symbiosis.”

Ideally, for further insights into the nature of this Other—its properties, its powers and possible intentions—we would turn here to a vast database of all recorded mystical, spiritual, and religious experiences, not just those of monks and writers but of anonymous adolescents, street-corner prophets, indigenous shamans, peyote-eaters, and so forth. But no such database exists, nor is there any reason to think that an exhaustive one is possible. How could we know what proportion of mystical experiences ever get recorded in one form or another? Maybe the recorded ones are only a small and unrepresentative minority of the total. And how could we correct for the possibility that many recorded experiences have been censored or at least recorded in a form designed not to offend any of the prevailing deities or their human representatives? The intended audience for Saint Teresa’s autobiography, for example, was the Inquisitors who were investigating her for signs of heresy, so she may have redacted any visions or insights that could possibly be interpreted as diabolical in origin. The twentieth-century Jesuit mystic and scientist Teilhard de Chardin struggled mightily to imbue his insights with a “Christic sense” lest they be seen as “godless pantheism”—and still his superiors often forbade him to publish.
But we do know enough to say that this Other who appears in mystical experiences is not benevolent, or at least not consistently so. Here I am not talking about the monotheistic God, or whatever entity can be blamed for natural disasters and birth defects—just about that Other whose existence could be inferred from reported mystical experiences or, for that matter, from close attention to natural phenomena like tropical weather. The early-twentieth-century theologian Rudolf Otto surveyed the works of (mostly Christian) mystics for clues as to the nature of the _mysterium tremendum_, as he termed it, a.k.a. the "Wholly Other," and concluded that it was "beyond all question something quite other than the 'good.'" It was more like a "consuming fire," he said, perhaps from personal experience, and "must be gravely disturbing to those persons who will recognize nothing in the divine nature but goodness, gentleness, love, and a sort of confidential intimacy." As Eckhart, one of Otto's many sources, had asserted centuries earlier, referring to the Other as "God," the religious seeker must set aside "any idea about God as being good, wise, [or] compassionate."

This of course poses a nearly insoluble problem: Mysticism often reveals a wild, amoral Other, while religion insists on conventional codes of ethics enforced by an ethical supernatural being. The obvious solution would be to admit that ethical systems are a human invention and that the Other is something else entirely. After all, human conceptions of morality derive from the intensely social nature of the human species: Our young require years of caretaking and we have, over the course of evolution, depended on one another's cooperation for mutual defense. Thus we have lived, for most of our existence as a species, in highly interdependent bands that had good reasons to emphasize the values of loyalty and heroism, even altruism and compassion. But why should a being whose purview supposedly includes the entire universe share the tribal values of a particular group of terrestrial primates? The God of religion, the enforcer of ethics, is one thing, the "Wholly Other" revealed in mystical experiences quite another.

Otto, good Protestant that he was, refused to make this distinction. Religions, especially of the highest, so-called world religion rank, seem to require their founding revelations—annunciations, Damascene moments, visits from Allah in a cave—to convince us of their nonhuman, "divine" origin. Presumably the Hebrews would not have accepted the Ten Commandments if they came in the form of a memo. The commandments had to be delivered by a bearded prophet whose mystic credibility had been conferred by the burning bush and who came down from the mountain accompanied by a terrifying display of thunder and lightning. Somehow human authority is never enough; we must have special effects. Otto, too, wanted his Christian ethics to be grounded in the "numinous" as glimpsed by the mystics, so he perpetuated the confusion. Even some of our more scientifically grounded philosophical thinkers today, like the Canadian philosopher John Leslie, struggle mightily to detect some ethical principle infusing the natural world.

If the Other as perceived by mystics is not benevolent, neither is it necessarily malevolent; in fact both descriptions are flagrantly anthropocentric. Why should it be "for" us or "against" us any more than the God of monotheism should favor the antelope over the lion? A creature of some kind, an alternative life form, as suggested by Dick, would have its own agenda, sometimes working to our advantage and sometimes against us—as in the lowly case of _E. coli_, which plays an important role in human digestion but can also be an agent of mortal illness—but we do not know what that creature is, if "creature" is even the right word.

Barred from more respectable realms of speculation, the idea of a powerful invisible being or beings has been pretty much left to
the realm of science fiction, where, as it happens, I spent some of the happiest hours of my youth. In some classic sci-fi, the being in question is a god or a kind of god. Olaf Stapledon's 1937 novel Star Maker, for example, ends with its far-traveling human protagonist finally encountering the eponymous “eternal spirit,” who has been allowing one planetary civilization after another to flourish and die out, for no evident reason: “Here was no pity, no proffer of salvation, no kindly aid. Or here were all pity and all love, but mastered by a frosty ecstasy.” In Arthur C. Clarke’s short story “The Nine Billion Names of God,” Tibetan monks who have set themselves the task of generating all the possible names of God finally get some assistance from a computer brought to them by Western technicians. As the technicians make their way back down the mountainside from the monastery, they look up at the night sky to see that, “without any fuss, the stars were going out.” The monks had been right: The universe existed for the sole purpose of listing the names of God, and once this exercise in divine vanity was accomplished, there was no reason for the universe to go on.

Clarke’s novel Childhood’s End more fully develops the theme of an über-being that uses humans for its own inscrutable purposes. Clark was no New Age fluffhead; he was an avowed atheist with a background in physics and rocket science. Yet the plot centers on an unseen “over-mind” of remote extraterrestrial provenance, which sends its agents to essentially domesticate humankind. War is ended, along with many of the more obvious forms of injustice, leading to an era of peace and harmony that Clarke, with typical Cold War contempt for utopias, portrays as comfortable but dull. Meanwhile, the over-mind’s agents seek out the more mystically adept members of humanity, who are eventually recruited into a kind of trance culminating in mass spiritual unity with the over-mind. When that has been achieved, the earth blows itself up, along with the last human on it, after which the over-mind presumably moves on to find a fresh planet—and species—to fulfill its peculiar cravings.

Science fiction, like religious mythology, can only be a stimulant to the imagination, but it is worth considering the suggestion it offers, which is the possibility of a being (or beings) that in some sense “feeds” off of human consciousness, a being no more visible to us than microbes were to Aristotle, that roams the universe seeking minds open enough for it to enter or otherwise contact. We are not talking about God, that great mash-up of human yearnings and projections, or about some eternal “mystery” before which we can only bow down in awe. I have no patience with Goethe when he wrote, “The highest happiness of man is to have probed what is knowable, and to quietly revere what is unknowable.” Why “revere” the unknowable? Why not find out what it is?

Science could of course continue to dismiss anomalous “mystical” experiences as symptoms of mental illness, but the merest chance that they represent some sort of contact or encounter justifies investigation. After all, rational people support SETI, or the Search for Extraterrestrial Intelligence, despite what is so far a resounding silence from the skies. Similarly, scientists prowl the earth looking for “weird life,” meaning not just the “extremophiles” that inhabit hot springs and glaciers, but organisms that may be based on silicon instead of carbon or arsenic instead of phosphorus. It is not unscientific to search for what may not be there—from intelligent aliens to Higgs bosons or a vast “theory of everything” underlying all physical phenomena. It is something we may be innately compelled to do.

The fact that this being or beings is so far undetectable to us and our instruments does not mean that it is made out of some supernatural “mind-stuff” unlike familiar matter and energy (not,
I should note, that “familiar” matter and energy any longer seem to comprise very much of the “stuff” in the universe). Whether this being is alive, in a biological sense, as Dick proposed, is of course entirely conjectural, if only for the simple taxonomic reason than that biologists themselves are not agreed on a definition of life: Does life involve metabolism, meaning eating and respiring, or is it enough to be able to reproduce, as in the case of viruses? Monotheism inhibits us from imagining anything involved with the “numinous” or “holy” as part of a species, since a species generally has more than one member. But if the hypothesized beings are “alive,” that is, technically speaking, what we are dealing with.

As for those who insist on a singular deity, I would note that the line we draw between an individual and a multitude is not always clear: Slime molds can exist as individual cells or join together to form a single body; bacterial colonies can exhibit a kind of intelligence unavailable to individual bacterial cells. Humans can live alone or in small clusters and then suddenly, in the face of a common enemy, band together and begin to act like a single unit, which in turn just as readily disperses. If there seems to be some confusion here on the subject of case—whether to say Other or Others, deity or deities—it grows out of the limits of our biological imagination.

One possible biological analogy for the relationship between humans and the Other or Others would be symbiosis, as Dick proposed. This is the kind of relationship that exists between humans and the trillions of microbes that inhabit our guts. The microbes get a comfortable place to live, regularly bathed in nutritious fluids; the human gets digestive assistance, some defense against foreign bacteria, and useful microbial products like vitamin K. To scale up, rather joltingly, from intestinal flora to the God of monotheism, there have even been suggestions that he exists in a symbiotic relationship to humans. The twentieth-century theologian Abraham Heschel wrote that Jewish mystics were historically “inspired by a bold and dangerously paradoxical idea that not only is God necessary to man but man is also necessary to God, to the unfolding of his plans in this world,” although Heschel gives us no reason to suspect that God’s plans are in any way biologically self-serving.

There are far uglier possible relationships between disparate species. When I was a girl just setting out on my quest, I asked myself whether I would want to know the “truth” even if I was given the “foreknowledge that it would only be a bitter disillusionment.” This possibility had been impressed on me at a very young age by a radio drama, long ago, when there were such things in America, with actors and scripts. Four mostly paralyzed veterans occupy a hospital room, where only one can see out the window. He whiles away the hours by describing the outside world to his roommates—the comings and goings, the laughing children, the pretty girls—until one of the other men demands that he get a turn in the bed by the window. The switch is made. The new guy gets the window and discovers that what actually lies outside is nothing but a brick wall—no comings and goings, no laughter or sunshine. Would I want to know a truth like that? Courageously, or so I thought at the time, I decided that I would.

Well, here it is: The worst possible relationship between humans and some mystically potent being or beings, at least the worst that I can imagine, would be not symbiosis but parasitism. Plenty of familiar creatures cannot live on their own; they require hosts, and, interestingly, some of them are capable of modifying the behavior, and possibly also the thoughts and feelings, of their hosts. For example, a flatworm, *Leucochloridium paradoxum*, infects normally shade-loving snails and prompts them to crawl into the sunlight.
where they may be eaten by a bird, which then becomes the flatworm's next host. A parasitic wasp compels its spider host to spin an unnatural kind of web that will be used to house the wasp's progeny, not the spider's. Some parasites even manufacture hormones and neurotransmitters that can act on their hosts, perhaps even inducing an insect version of ecstasy. Certainly the highly asymmetrical arrangement proposed by Eckhart—a relentlessly procreative God and the humans who serve as its hosts—looks very much like parasitism. If so, those who think of themselves as "enlightened" may in fact have been infected and, in some hideously intimate way, used.

Do I believe that there exist invisible beings capable of making mental contact with us to produce what humans call mystical experiences? No, I believe nothing. Belief is intellectual surrender; "faith" a state of willed self-delusion. I do not believe in the existence of vampire-spirit-creatures capable of digging deep into our limbic systems while simultaneously messing with our cognitive faculties, whether we experience the result as madness or unbearable beauty. But experience—empirical experience—requires me to keep an open mind. And human solidarity, which is the only reason for writing a book, requires that I call on others to do so also.

There are other possibilities than "creatures" or "beings" of any kind. Science has always wrestled with the idea of an immaterial will, or agency, at work in the universe, and for centuries it was thought to be expressed through the "laws of nature." God might be dead, but he rules on, or so it was thought, through his immutable laws. It turns out, however, that those laws are at best crude averages, rough generalizations. Take a more fine-grained look, or develop more sensitive instruments, and things get more interesting. At the smallest, quantum, level, there are no laws at all, only probabilities. An electron can be here, there, or both places at once, very much as if it had a choice in the matter. At the macroscopic level, the meteorologist Edward Lorenz found that rounding off the number .506127 to .506—for simplicity, and because of the crudeness of his computer—he came out with wildly different weather predictions: the so-called butterfly effect. This is not to say that electrons make reasoned decisions or that winged insects govern the weather—just that the natural world has gotten a lot livelier than it was when I first came on the scene as a young student of science.

A hint of—dare I say?—animism has entered into the scientific worldview. The physical world is no longer either dead or passively obedient to the "laws." It can surprise us, as for example, when an electron-positron pair springs out of total vacuum, an ordinary summer storm whips itself into a tornado, or a simple circuit develops the power to oscillate. Nothing supernatural is involved in any of these cases; even the oscillating electrode is following old-fashioned laws of electrodynamics. It's just following them in ways we could not have predicted, ways that give rise to an "emergent" pattern that seems to come out of nowhere. As for the emergence of matter out of nothing, which tormented me so much as a child, we are coming to see that there is no Nothing. Even the most austere vacuum is a happening place, bursting with possibility and constantly giving birth to bits of Something, even if they're only fleeting particles of matter and antimatter. To quote the polymathic and determinedly rationalist Howard Bloom, "We have vastly underrated the cosmos that gave us birth. We have understated her achievements, her capacities, and her creativity. We've set aside will, purpose, and persistence in a magic enclosure and have claimed that...[they] do not belong to nature, they belong solely to us human beings."
We have, in other words, made ourselves far lonelier than we have any reason to be. My adolescent solipsism is incidental compared to the collective solipsism our species has embraced for the last few centuries in the name of modernity and rationality, a worldview in which there exists no consciousness or agency other than our own, where nonhuman animals are dumb mechanisms, driven by instinct, where all other deities and spirits have been eliminated in favor of the unapproachable God of monotheism, a worldview in which, as the famed twentieth-century biochemist Jacques Monod put it, “Man at last knows he is alone in the unfeeling immensity of the universe.” If I was, when I entered adulthood, a little bit nuts, it was because I was struggling to fully accept that view of the world.

For all that I had learned since middle age about science and new science, religion and the old religion, I would never have committed myself to the project that became this book if not for a couple of disasters. First was the cancer that disposed me to thoughts of imminent mortality at exactly the time I was sorting through my papers with a librarian in 2001. I was prepared to die, at least as the freakish older person I had become, bald and enfeebled by the cancer treatments, but I was not ready to let go of my younger self, which is why I snatched up my journal and saved it from permanent incarceration in a library basement.

Still, I was not moved to any kind of follow-up for another four years, and then only by an “act of God.” By this time I had more or less relocated to the mainland, with the intention of selling my house in the Keys. Then, in October 2005, a few weeks after the far more catastrophic Katrina, Hurricane Wilma struck the Keys, generating a storm surge five feet high. When I traveled down a few weeks after the storm to survey the damage, bringing along friends to help with salvage and repair, I discovered that most of the evidence of my existence—the paper traces anyway—had been swept away. My study, located at ground level, was a soggy ruin, already encrusted with mold. This was my Ozymandias moment: Gone were the files containing all the articles I had ever published, financial records, computer disks, along with the books I was using for the research I was doing at the time.

My journal survived only because, in some uncharacteristic act of foresight, probably at the time of the librarian’s visit in 2001, I had moved it to a second-floor storage space, where the flood was not able to find it. When I flew back to where I was living near my daughter and grandchildren in Virginia, the journal came with me in my carry-on bag, and shortly after my return I dismissed the last of my male companions for a number of compelling reasons, topped by my need to be alone, which had become far more urgent than any romantic attraction. Then, in the midst of so many other serious and worldly obligations, I began to transcribe the journal, a few hours a day for a couple of weeks, and eventually coming across the question I had addressed to my older self when I was about sixteen: “What have you learned since you wrote this?”

This is the challenge that comes hurtling out at me from across the decades like a final exam or an exit debriefing: What have I learned? And of course it does not mean what did I learn about protein conformational changes or military history or even about the roots of systematic human cruelty and how we could go about creating kinder social arrangements. It means, What did you learn about all of this? What is going on here? Why is this happening?

Well, I have to admit to my child-self: not enough, not anywhere near enough. To please you I would have had to devote my life to neuroscience and philosophy, possibly also ashrams and spiritual discipline. I would have studied cosmology and math. I would have passed many hours with fellow seekers, perhaps in
scenically magnificent settings, debating, sharing, comparing. But I came of age in a time of turmoil and, naturally enough, I took a side. The time I could have spent carrying on the quest went instead into meetings and protests; my research interests turned to wages and poverty, war and the mechanisms of social change. I would not expect my sixteen-year-old self to understand this redirection, she who did not even fully acknowledge the autonomous existence of other human beings. But this is how it turned out: I fell in love with my comrades, my children, my species.

I learned this much, though, which, given the poverty of metaphysical speculation in our time, an atheist admits only at some risk to her public integrity: You first have to revise the question. To ask why is to ask for a motive or a purpose, and a motive has to arise from an apparatus capable of framing an intention, which is what we normally call a mind. Thus the question why is always really the question who.

Since we have long since outgrown the easy answer—God—along with theism of any kind, we have to look for our who within what actually exists. No one is saying that the universe, as an entity, is alive, and certainly not that it has motives or desires. But the closer and more carefully we probe, the more it seethes with what looks like life—runaway processes driven by positive feedback loops, emergent patterns, violent attractions, quantum leaps, and always, as far ahead as we can see, more surprises. There may be no invisible creaturely “beings” afoot, either symbionts, parasites, or predators. But there are uncountable algorithms at work in the physical world, writhing and reaching, pulling matter and energy into their schemes, acting out of what almost seems to be an unquenchable playfulness. Sometimes, out of all this static and confusion, the Other assembles itself and takes form before our very eyes.

In my case, this continues to happen right up to the present, although mercifully in much less cataclysmic form than when I was a teenager. Just a few days ago, for example, I found myself downtown a little after noon in a grassy space lined with food trucks. I wasn’t hungry but I wasn’t in a rush to get anywhere either, so I fell into the line for one of the trucks, attracted by the great flow of people out of their office buildings queuing up patiently as if for the distribution of some sort of blessing. It was the first genuinely springlike day of the season, sunny and disheveled. As I got closer to the truck I had chosen to wait in line for, my eye was caught by something inside it, semicircular and brassy, maybe a knob or a handle, gleaming with its own personal supply of sunlight, and I lost it there for a moment, stunned by the audacity of this object trying to condense the light of a star into its little circumference, stunned by the whole arrangement—buildings, lines, trucks—like some paleoastronomical structure designed to capture the first rays of the solstice sunrise so that the ceremony can begin, the mass inpouring and outpouring of ecstasy from the heavens and back...

Ah, you say, this is all in your mind. And you are right to be skeptical; I expect no less. It is in my mind, which I have acknowledged from the beginning is a less than perfect instrument. But this is what appears to be the purpose of my mind, and no doubt yours as well, its designated function beyond all the mundane calculations: to condense all the chaos and mystery of the world into a palpable Other or Others, not necessarily because we love it, and certainly not out of any intention to “worship” it. But because ultimately we may have no choice in this matter. I have the impression, growing out of the experiences chronicled here, that it may be seeking us out.