

WHICH WAY MADNESS LIES

Can psychosis be prevented?

By Rachel Aviv

Anna did not simply decide one day that people were made of paper. She came to the conclusion slowly and reluctantly, several months after she first noticed that the consistency of everything around her had subtly changed. Books and chairs and buildings were no longer solid but composed of tiny, buzzing particles. She thought if she blew on a lamppost it should disperse into air. On her way to school every morning, she was perplexed by the implausibility of the process: that she could walk along the sidewalk, her boots pressed against the concrete, without falling through.

Anna had always been the kind of student who would do anything to please her teachers, and from a young age she had single-mindedly pursued a career as a scholar.¹ But by her first semester of graduate school

¹ To protect patients' privacy, all names and a few identifying details have been changed.

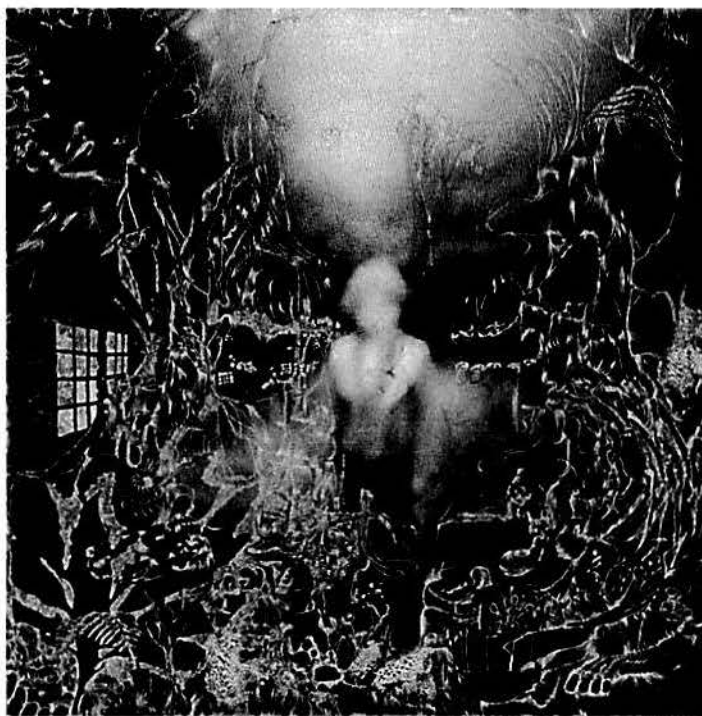
Rachel Aviv is a recipient of the 2010 Rona Jaffe Foundation Writers' Award. Her article "Like I Was Jesus" appeared in the August 2009 issue of Harper's Magazine.

three years ago, schoolwork had become daunting for the first time. She had studied Russian, German, and

overwhelmed by the task of physically forming the sounds of words that she lost the ability to speak. She knew what she wanted to say, but she couldn't will herself to make such odd little noises.

I met Anna last year at her Illinois home, a small, brightly painted town-house apartment, and she tried to pinpoint when she had stopped believing in the reality she'd contentedly inhabited all her life. A petite twenty-eight-year-old with cleanly parted blond hair, she spoke in a thin, strained voice and avoided looking at me. My lips, she said, appeared as if they were moving at a different pace than my voice, and she had to bat away the thought that she was watching a dubbed film.

Anna's mother is schizophrenic, and Anna had always found her mother's worldview—derived in part from messages she deciphered in processed-food packaging—distasteful and impossible to comprehend. She assumed that when her mother had a schizophrenic break, the delusions had taken her by force, engulfing her. But an alternate



French, yet she found herself forgetting words she'd known for years. Even English no longer felt like a native language. She sometimes examined the appearance of words, the alignment of angles and curves on the page, until she lost sight of their meaning. Once, with her friends, she became so

reality did not come to Anna fully formed. Throughout her first year of graduate school, she kept monitoring her own perceptions, wondering whether they didn't have some "tinge of unreality." She searched for a narrative that would explain why the world was being transformed. One day, wandering the halls of an academic department, she became fascinated by the physical details of the building: tiny cracks in the wall, a light switch, a rubber doorstep that looked luminous and functionless. A bust of Plato, which she had never noticed before, seemed to be calling out to her. As she gazed at Plato's mournful expression, she imagined that he had singled her out to unburden himself and shed light on the "overwhelming strangeness of the world."

But after she left campus and returned to her apartment that day, the electricity of her mood passed, and she wanted nothing to do with Plato's secrets. She blamed herself for attending too avidly to the stream of her own consciousness. "It wasn't as if this bust suddenly started talking to me out of thin air," she told me. "I wanted him to, and then I sort of convinced myself that he did. It didn't feel like I was passively being subjected to another reality. It felt like I somehow actively engaged in creating it."

P sychiatry has many names for the symptoms of florid psychoses but almost no language that describes the anomalous experiences that gradually lead up to this state. The psychoanalyst Harry Stack Sullivan, who worked with hundreds of people with schizophrenia, proclaimed as early as 1927, "I feel certain that many incipient cases might be arrested before the efficient contact with reality is completely suspended." But doctors had no means of finding and recruiting patients who were, for all intents and purposes, still healthy.

It is impossible to predict the precise moment when a person has embarked on a path toward madness, since there is no quantifiable point at which healthy thoughts become insane. It is only in retrospect that the prelude to psychosis can be di-

agnosed with certainty. Yet in the past decade, doctors have begun to trace the illness back to its earliest signs. The place where Anna receives therapy, the First Episode Psychosis Clinic at the University of Illinois Medical Center (she began treatment in April 2008, shortly after she noticed the particles surrounding her), is one of about sixty clinics in the United States that work to help people experiencing early psychotic symptoms maintain a grasp on reality. About a third of these programs focus exclusively on patients who appear to be in what is known as the prodrome, the aura that precedes a psychotic break by up to two or three years. During this phase, people often have mild hallucinations—they might spot a nonexistent cat out of the corner of their eye or hear their name in the sound of the wind—yet they doubt that these sensations are real. They still have "insight"—a pivotal word in psychiatric literature, indicating that a patient can recognize an altered worldview as a sign of illness, not a revelation.

By working with people when they are still skeptical of their own delusions, doctors hope to stop the disease before it has really begun. Three years ago, the results of a study of nearly 300 patients who sought treatment because of "recurring unusual thoughts," "unusual sensory experiences," or "increased suspiciousness" were published by the North American Prodrome Longitudinal Study, a collaboration of eight prodromal outpatient clinics. The researchers found that 35 percent of patients had a psychotic break within two and a half years of enrolling at a clinic.² (If symptoms continue, the patients will eventually be diagnosed with schizophrenia or another psychotic disorder.) This line of research may promise the closest thing there has ever been to a "cure" for psychosis, but because of the high false-positive rate, the work has been tempered by ethical dilem-

² The others found that their symptoms passed or plateaued. For patients who used cannabis, amphetamines, opiates, or hallucinogens, the risk of psychosis rose to 43 percent.

mas. Many psychiatrists worry that young patients will become fatalistic about their future and define themselves in relation to a chronic disease they may never develop. Yet once people have a full-blown psychotic episode—the schizophrenia diagnosis requires a month of psychotic behavior—there may be irreversible changes in the brain. Studies have shown that the longer someone is unhinged from reality before getting treatment for the first time, the worse their long-term prognosis.

Based in part on the findings of the Prodrome Longitudinal Study, a new diagnosis, the psychosis risk syndrome, was proposed last year for the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (forthcoming in 2013), psychiatry's central reference text. Symptoms would include

feeling perplexed, confused, or strange, thinking that the self, the world, and time has changed (often in ways that cannot be described), having ideas of reference that are not perceived as directly threatening to the individual, unusual ideas (about the body, guilt, nihilism), overvalued beliefs (about philosophy, religion, magic) ...

Once patients believe in their delusions with full conviction, they are said to have crossed the threshold to psychosis—a process commonly called "conversion."

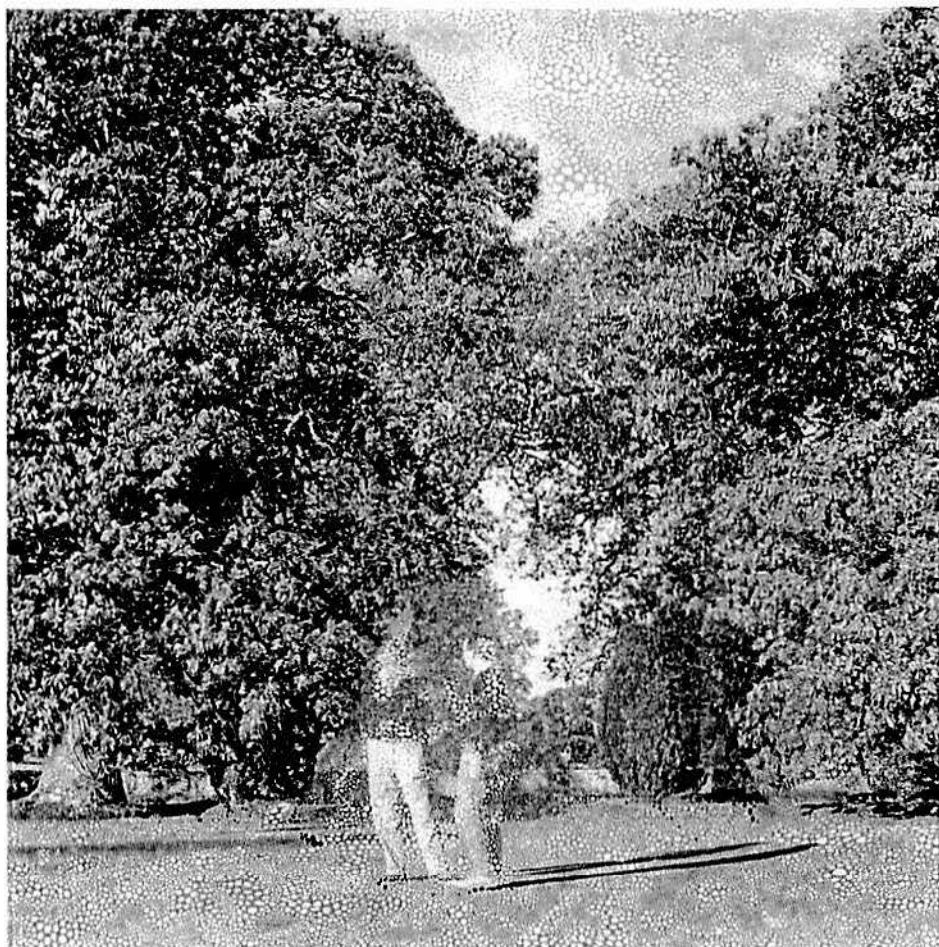
Although the DSM is written by the country's leading psychiatrists, the neurological mechanisms behind mental disorders are too poorly understood to have much bearing on the way the manual separates health from pathology. Instead, the fifty-eight-year-old book guides psychiatrists toward diagnoses with checklists of behavioral signs that require a "minimal amount of inference on the part of the observer" (according to the 1987 edition). The outer limits of normality are decided by committee, with definitions of illness deferring to consensus opinion. A "delusion," one of the five key symptoms listed for schizophrenia, is a "false belief ... firmly sustained despite what almost everyone else believes." A "bizarre delusion," a more severe symptom, has gone

through numerous revisions. In one edition of the manual, it had to have “patently absurd” content with “no possible basis in fact”; in the next, it involved “a phenomenon that the person’s culture would regard as totally implausible.” After the revision, 10 percent of patients who were previously deemed schizophrenic were given a new diagnosis, the majority of them because their delusions were no longer bizarre.³

The DSM is designed to avoid the slippery spaces between disorders, the complaints not easily named or seen. Perhaps more than any other disorder, the psychosis risk syndrome puts pressure on the logic of the entire enterprise, as it forces doctors to break down the process of losing one’s mind. They have to identify delusions before the patient really believes in them. When does a strong idea take on a pathological flavor? How does a metaphysical crisis morph into a medical one? At what point does our interpretation of the world become so fixed that it no longer matters “what almost everyone else believes”? Even William James admitted that he struggled to distinguish a schizophrenic break from a mystical experience.

For Anna, early symptoms were nearly impossible to describe, and the only way to communicate them was by making up new phrases: she wrote in her journal that she was struggling with “migrating electrical sensations” and the sense that “words were alive.” The first therapist Anna went to see didn’t know what to make of her disparate symptoms and, after a few sessions, told Anna she didn’t know how to help her. Anna left without a referral. Two months later, she became a pa-

³ Michel Cermolacce, Louis Sass, and Josef Parnas, writing in *Schizophrenia Bulletin*, offer a detailed account of the evolution and uses of this descriptor. Non-bizarre delusions are easier to pin down: according to the DSM-IV they include “situations that occur in real life, such as being followed, poisoned, infected, loved at a distance, deceived by spouse or lover, or having a disease.”



tient at the Psychosis Clinic, after finding it online. She was still getting A’s in school, and there was no one symptom that bothered her most—it was only the sum total of these nameless experiences.

Anna’s psychologist, Cherise Rosen, would not speak to me directly about Anna’s treatment, but Anna said that she was initially told that her symptoms were mild and her prognosis good. Although she never received an official diagnosis, Anna tentatively concluded, after scouring psychiatric literature on psychosis and recognizing herself in the descriptions, that she was in the prodrome to schizophrenia. (The clinic accepts some prodromal patients but primarily works with people soon after a first psychotic break.)

Anna and I spoke several times over the past year, and she always approached her symptoms with critical distance. As an adolescent, she

had vigorously argued that the fantastical stories her mother told were logically impossible: there was no global conspiracy, the phones weren’t tapped, there was no need to put all their belongings on the sidewalk. Anna was terrified of becoming schizophrenic herself—more than 10 percent of people with a schizophrenic parent develop the disease, compared with about 1 percent in the rest of the population—but by the time she reached her early twenties, she was so socially and intellectually at ease that she assumed the window of risk had passed. “I defined myself in opposition to that backdrop of illogicality,” she said.

Yet in the course of a few months, she had become too suggestible: she would come up with sweeping theories about the structure of reality—that time no longer existed, that the world was made entirely of gasses—and then, moments later, scold her-

self for allowing the experience when there was “not a shred of scientific evidence.” She kept waiting for the particles to vanish on their own. When they didn’t, she worried she was “addicted to an idea.” She felt that by wondering about the properties of matter—by blowing on books to see whether they would disintegrate—she had taken some irrevocable step toward illness.

Anna’s doctors urged her to take antipsychotic medication, but Anna did so only sporadically, rarely at a therapeutic dose, primarily because the drugs made her feel too tired and mentally cloudy. During her weekly sessions, the psychiatrist at the clinic would check up on her with a stream of standard queries: Do you think your thoughts are not your own? Do you ever hear voices? For months, Anna said no, but she became increasingly uncertain. The boundary between fantasy and lived reality had become too porous. When she focused closely enough on her thoughts, she could make herself hear a soft voice behind them. More and more, her thoughts began to feel like “things,” she said. They had their own location and sentence: she could feel them circling around her brain.

For the past two centuries, schizophrenia has been defined in part by its incomprehensibility. The psychiatrist Karl Jaspers wrote that schizophrenic symptoms embody “something inaccessible and foreign which, for this very reason, language defines as *deranged*.” In the 1940s, doctors turned their own sense of alienation into a diagnostic marker. If they could not feel empathy for their patients, they would get a cold, vertiginous sensation known as the “*praecox feeling*” (schizophrenia used to be known as *dementia praecox*). Sigmund Freud apparently got this feeling and gave up on talk therapy with schizophrenics. “Ultimately I had to confess to myself,” he wrote to a colleague, “that I do not care for these patients, that they annoy me, and that I find them alien to me and to everything human.”

The pessimism surrounding

schizophrenia is so deeply entrenched in psychiatric practice that when patients recover, they’re occasionally told that they must have had a different disorder all along. People with schizophrenia take up 25 percent of the nation’s hospital beds, and 10 percent of them eventually commit suicide. Over the past century, doctors have tended to grasp at anything resembling a cure, allowing little time to elapse between a new theory and its practical application. They injected patients with blood drawn from epileptics; put them into insulin-induced comas so that they might wake up renewed and transformed; and carved out parts of their prefrontal cortices—where unhealthy fixations were thought to reside—with ice picks.

Then, for decades, the prevailing treatment model called for no physical contact. Patients reclined on leather couches while psychiatrists plumbed their childhoods for hints of abuse or neglect, for mothers who had been too frigid or overprotective or needy. “We were just building castles, sand castles,” Thomas McGlashan, the first American doctor to open a prodromal clinic, told me. He spent fifteen years as an analyst at Chestnut Lodge, a famous psychiatric asylum in Maryland, until he was overwhelmed by the sense that the disease had eluded him and his colleagues. “We can’t just sit there and guess why someone has gone mad,” he said. “We have to watch it happen.”

McGlashan was inspired by the work of the New Zealand psychiatrist Ian Falloon, who, in the late 1980s, had attempted to treat all the people in two towns north of London who showed possible signs of impending psychosis. After giving these patients low doses of antipsychotics and home-based therapy for four years, Falloon reported that the two towns had one tenth as many new cases of psychosis as the rest of the country. More recent studies have shown that in the years before people have a psychotic break, they struggle to identify tastes and smells—a banana no longer tastes like a banana, or fresh water begins to carry the odor of mold—and they lose gray-matter vol-

ume in certain parts of their brains, particularly the hippocampus, which is crucial for learning and memory. (These findings are too rough to serve as a diagnostic tool.) In one study, McGlashan and other researchers had patients listen to recordings of several people speaking simultaneously so that their words were indecipherable. Those patients who could detect meaning—they heard the words “the children,” “bombing,” “the administration,” “seem to have trouble,” “practice dancing”—were more likely to become psychotic within one year.

McGlashan and his team at Yale are among those who have pushed for the psychosis risk syndrome (or, more recently, the “attenuated psychotic symptoms syndrome”) to be included in the *DSM*, so that psychiatrists won’t turn away patients simply because they haven’t fulfilled diagnostic criteria. McGlashan has compared the historical importance of prodromal research to Freud’s discovery that dreams reveal the unconscious. But many of his colleagues object to adding the diagnosis, since even the best clinics predict psychosis with less than 40 percent accuracy and there is no clearly established method for preventing conversion. It’s impossible to know whether early intervention has prevented a psychotic break or whether the patient was never going to have one in the first place.

A few prodromal clinics prescribe antipsychotics to the majority of patients but most, including McGlashan’s, treat patients for the symptoms they have, not the ones they may eventually develop.⁴ Therapy, psychosocial education, and anti-anxiety and antidepressant medications are used. But if the diagnosis is administered by clinicians not specially trained in the field, the possibility of overmedication is much greater—a potential “public health

⁴ In one early experiment, McGlashan examined the efficacy of the antipsychotic drug olanzapine, but the study produced mixed results. It also prompted an investigation by the federal Office for Human Research Protections, in part because McGlashan had not adequately informed his patients that the drug has side effects: participants gained an average of twenty pounds.

catastrophe," in the words of Allen Frances, chair of the *DSM-IV* Task Force. In a letter to the board of the American Psychiatric Association last year, he and Robert Spitzer, the architect of *DSM-III*, warned that if the psychosis risk syndrome were included in the manual, the association would run the risk of "medicalizing normality, and of trivializing the whole concept of psychiatric diagnosis."

Over the course of several months last winter, I visited the Center of Prevention & Evaluation (COPE), a prodromal outpatient clinic on the fourth floor of the New York State Psychiatric Institute in Manhattan's Washington Heights neighborhood. The clinic's director, Cheryl Corcoran, a compassionate, soft-spoken psychiatrist who has studied schizophrenia for her entire career, does not think the "risk" diagnosis is ready for unrestricted use, because of the difficulty of reliably identifying inchoate psychotic symptoms. Some patients can still hold down jobs, excel at school, or lead full social lives, yet they complain of transformations in their moods or perceptions. They often come to the six-year-old clinic (by referral or Internet search) because other doctors aren't sure how to classify what they are going through. In a paper in *Psychiatric Quarterly*, Corcoran published excerpts of interviews with patients' parents, many of whom relied on non-medical explanations to articulate what had changed: "I didn't know if he was possessed by the devil, because he was himself one day and then dramatically different and not coming back." "She is like a vessel that is never full." "It's hard because I don't even know this person." "It's not good to go against God—you can lose your soul."

I met with six patients individually in a small therapist's office overlooking the Hudson River and with photographs of serene scenery on the walls: Central Park in autumn, a dock overlooking the sea. They rarely used the word "schizophrenia," but they all spoke of the fear of losing their minds. "This whole thing has turned me into a philosopher," said

Jorge, a peppy high school junior who was referred to the program two years ago after walking across the George Washington Bridge with a four-foot samurai sword wrapped in a blanket. He had become obsessed with black magic, spending hours a day on a website for occult researchers. At the time, he felt like he was on the brink of tapping into his own mystical powers. "I need to control myself when I study something," he told me, swiveling around in an office chair. "It sticks on me too hard. I get so dragged into the subject that I become it."

Like nearly all American prodromal clinics, COPE admits patients based on their responses to the Structured Interview for Psychosis-Risk Syndromes, a two-hour exam developed by McGlashan—modeled on a similar test authored by psychiatrists in Melbourne—that evaluates genetic risk, cognitive deterioration, social withdrawal, and the earliest flickers of psychosis.

Do you daydream a lot or find yourself preoccupied with stories, fantasies, or ideas?

Do you think others ever say that your interests are unusual or that you are eccentric?

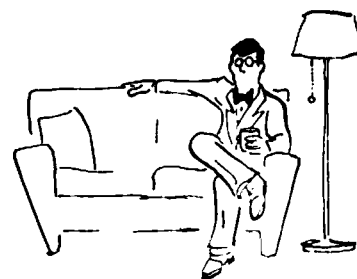
Do familiar people or surroundings ever seem strange? Confusing? Unreal? Not a part of the living world? Alien? Inhuman?

Have you ever felt that you might not actually exist? Do you ever think that the world might not exist?

Another part of the exam assesses people's capacity for abstract thought. They are asked to interpret proverbs, such as "Don't count your chickens before they hatch," and to describe the similarities between an apple and a banana. The correct response—"Both are fruit"—eludes some of the sicker patients, who instead home in on concrete characteristics. The psychologist who administers the exam told me that one of the most common wrong answers is "Both have skin."

At the clinic, health is measured by degrees of conviction. Corcoran routinely checks up on her patients to see how compelling (on a scale of 1 to 10) they find their unusual beliefs. How do you think people are reading your mind? she asks gently.

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Are they reading it right now? Do you ever think it could be your imagination? As they flesh out their stories, people sometimes dismiss their fears as “crazy” or “goofy” or “absurd.” Treatment becomes a process of reinterpreting and naming experiences that once felt too private and ineffable to share. “The man on the subway may know what I’m thinking” is translated as “I’m feeling paranoid.” “When people are not entirely convinced, you can work with that insight,” Corcoran said. “The experience doesn’t have to impose a change on their identity.”

Although people with schizophrenia are born with a biological vulnerability that predisposes them to the disease, the theory that psychosis arises from psychological turmoil is not as anachronistic as many have been led to believe. (As if to compensate for the psychoanalytic era, when a generation of parents were made to feel responsible for their children’s suffering, psychiatrists have become squeamish about en-

gaging with questions of cause and effect.) Studies have shown that people’s chances of developing the disorder increase after demoralizing events—sexual or physical abuse, emotional neglect, witnessing a bombing or shooting, a mother’s death. Other factors include poverty, growing up with more than three siblings, living in an urban area, and immigration. When people move to a neighborhood where they are the ethnic minority, their chances of becoming schizophrenic increase. As the anthropologist T. M. Luhrmann put it, “If your skin is dark, your risk for schizophrenia rises as your neighborhood whitens.”

About a third of the patients at COPE immigrated to the United States. Chloe, a glamorous, well-dressed twenty-four-year-old Japanese American who worked as a writer’s assistant, told me that many of her symptoms stemmed from “this constant questioning of what my true self is—even though that sounds really cheesy.” She kept her

black peacoat buttoned up to her chin for the length of our conversation. Each time she described a particularly troublesome symptom, she would laugh at herself, a soft, low, infectious giggle. “I think too much about every action I take. Like, ‘I’m moving my hand right now! That’s so magical!’” She wiggled her fingers in the air.

Chloe described her father as the “town nut” and then quickly apologized for saying it. As a child, she had struggled to understand that the stories he told about ghosts from the Civil War were no more real than the fairy tales she read before bed. When she went home to visit her family recently, she sat in the back yard with her father, who had refused treatment his whole life, and played house with figures he had made out of sticks. “I never want to be one of those people,” she said softly.

At times, she imagined that the act of having a bad thought—and then thinking about that act—would cause blood to leak from her brain.

The fear was new to her and, like Anna, she struggled to hold on to the experience. "Sometimes I'll just sit there and be like, 'Is there really anything wrong with me? What if I am making these things up because I'm so attention-starved?'" She managed a polite smile. "Or what if it's the fact that I'm making these things up that makes me mentally ill?" When I asked which experiences she may have invented, she put her chin in her palms and shook her head. "There are no words. It's like trying to explain what a bark sounds like to someone who's never heard of a dog."

Although the psychiatric literature describes a premorbid personality common to those who later develop schizophrenia—withdrawn, self-conscious, alienated—few of the patients I spoke with at COPE or at the Aware Program in Bangor, Maine, another prodromal clinic where I interviewed patients, fit that description. The only commonalities were that nearly all of them had moved through childhood and adolescence feeling more thoughtful, intelligent, or probing than their family and peers and that there had been an existential tinge to their preoccupations years before their symptoms emerged. Aaron, a patient at Aware who had been the president of his high school class, said that he and the others in his therapy group had "all gotten caught up on the deep, fundamental questions—religion, morality, ethics—and sucked in by them."

The raw material of delusions tends to evolve with the times, and over the past century, literature about psychosis reflects a steady thematic progression: delusions about communing with prophets and kings gave way to fears of being manipulated by the secret powers of factories, UFOs, radio DJs, fax machines, Al Qaeda, the Internet. Jessica Pollard, the director of the Aware Program, said that a few of her patients have become consumed by the fear that their private thoughts are being chronicled online. "I'll say, 'Okay, you really think there's a website about you? Well,

then let's look for it,'" and they go on the Web together. (When patients can't find the site, Pollard says, they are usually able to accept that it doesn't exist.) Whether about all-knowing blogs or guiding angels, there's a uniformity to many delusions. They offer an explanation for an unfamiliar feeling: the experience of losing control over one's mind.

The terror of this loss was described most vividly to me by one of the oldest patients at COPE, a slim twenty-eight-year-old named Melanie, who wore khakis, penny loafers, and a turtleneck to our meeting. She seemed to have come closer to psychosis than any other patient I interviewed there, but she used a few shreds of logic to tether herself to reality. Her symptoms began in January 2009, shortly after US Airways Flight 1549 hit a flock of geese and landed in the Hudson River. As she watched the footage of passengers huddling on the wings of the floating aircraft, she recalled a status update she'd recently posted online that referred to the saying "A bird in the hand is worth two in the bush." "I felt a huge jolt," she told me, speaking rapidly. Her pale face flushed. "I've never been one to say I predicted anything, but—for one thing, birds. Birds had taken down the plane. And then bush—President Bush. I thought, 'Oh my God, this is another 9/11, and I predicted the whole thing.'"

Although raised Mormon, Melanie had been an atheist since college, and in the days after the crash she was dismayed to find the God of her childhood reentering her life. Every encounter seemed to have been orchestrated by Him. "When I heard a car honk out in the street, I remembered that there are supposed to be two trumpets announcing the Second Coming," she said, sitting upright at the edge of her chair. "The first trumpet calls for the good people, and the second trumpet is for everyone else. There was a part of me that wondered"—she lowered her voice to a whisper—"Is that one of the trumpets?" She felt like an "alien on this earth" and decid-

ed to check herself into the hospital, but the first cab she flagged down had an advertisement for the Broadway play *Wicked* on its roof. "I knew it might be crazy, but there was a part of me that felt that if I got into a cab that says 'Wicked,' it would take me to Hell. Because I'm wicked!"

Eventually she got into another cab. This one had an advertisement for Absolut Vodka. "I thought, 'Oh, Mormonism says you can't drink alcohol! But that's lesser. A smaller sin. All right, I'll get in the cab.'" As she drove to the hospital, she had a kind of double awareness: she felt crazed and terrified, and yet she also saw herself as crazed and terrified—a person she couldn't quite relate to. "I have a science background," she told me. "I was thinking, Why are you having these religious feelings? You are an atheist now. Richard Dawkins! *The God Delusion*! You're misinterpreting! There's something wrong with your brain!"

If Melanie had waited longer before she went to the hospital, if her symptoms had persisted for another few weeks (the religious thoughts lasted for about two days), she might have been diagnosed with schizophrenia. But she began taking a low dose of antipsychotics and almost immediately stopped worrying about Hell. A few days later, she went back to work and recently received a promotion. She's not sure whether the medication and therapy cures psychosis or just delays it forever, or whether the distinction even matters. In the past year, she has occasionally wondered whether people are tracking her, but she's usually able to ignore the fear. "I can catch it right at the beginning—before it becomes so intense that the only thought that matches up with those brain signals is: *It's the Apocalypse, your soul is suffering.*"

Melanie said that her grandfather, a former aerospace engineer, had a schizophrenic break while he was testing missiles for the government. When he began to have delusions that his coworkers were spying on him, the fantasy was close enough to his everyday life that it did not

strike him as obviously implausible. Melanie, on the other hand, was at a point in her life where the concept of a religious awakening was clearly out of context. "I was like, *Ha!*" she said. "My atheism saved me."

The course of psychosis is much more variable than the DSM's definitions allow, and one of the dangers of including the risk syndrome in the manual is that this subtle state of mind is not easily expressed as a list of behavioral signs. Thomas McGlashan says psychiatric diagnosis is "just as completely primitive as it's always been," yet if he wants prodromal intervention to be widely practiced he will have no choice but to adhere to diagnostic standards. *The Psychosis-Risk Syndrome*, his new guidebook for clinicians, features a series of tables with a list of his patients' symptoms and a corresponding interpretation, but with no speculation as to what gave rise to a particular behavior or belief, the analysis is circular. The symptom is essentially the interpretation and the disorder itself. A critique in *Schizophrenia Bulletin* describes such methods as "akin to predicting extreme heat by an increase in temperature, without identifying the fire."

Case: Trinity presented at the interview in a lovely spring dress, wearing a straw hat that was completely lined with aluminum foil. She had plastic wrap around her hands and her shoes and large wads of cotton protruding from her ears.

Interpretation: Grossly strange appearance

Case: Mike reported that he thinks people think negatively about him and are plotting to make him confess everything that he has ever done wrong.

Interpretation: Concern about plots

Case: Dexter stated that he spends an increasing amount of time thinking about different ideas and is becoming preoccupied with these ideas.... He feels that it is important to write these ideas down and to encode them in a private codebook. He carried the codebook with him,

showed it to the interviewer and translated the title to the interviewer as "The Book of Ideas."

Interpretation: Preoccupation with unusually valued ideas

Case: Larry reported that he was not his usual self, as if part of him was missing. He reported feeling disconnected from everything but found people's concern for him strange.

Interpretation: Missing self

What it means to have a self—and then to lose it—is central to any attempt to understand psychosis, but the DSM (and the reams of psychiatric literature it has spawned) do not encourage doctors to probe their patients' subjective experiences. The manual is so concerned with statistical reliability (the book was meant to show "psychiatry becoming more of a science," as one editor put it) that the brain is portrayed as a kind of black box: only behavioral output is charted. For a person who feels that her thoughts are implanted by the gods, or broadcast on the radio, or stolen by her own cat, the standard medical model—which treats symptoms as something external and discrete, independent of the self—fails to capture the core of the illness.

Psychiatrists hope that soon a neurological explanation will make terms like "self" and "reality" irrelevant for diagnosis, but in the absence of a cure, even the most nuanced neuroscientific theory can go only so far in explaining someone's altered sense of the world. Aaron, at Aware, struggled with the delusion that he was attracted to young children and would be persecuted for his desires. He said he was assured that these beliefs were "chemical" and "brain-based." "What happens if there's some truth to your delusion? What if it is tied to reality?" he said. "They don't want you to come up with mythical explanations. So they keep telling you over and over again: it's just your brain."

Thirty years ago, people with psychotic symptoms might have explained their problems by talking about the mixed messages they had received at home. "It's the way I was raised," or, "It's because my mother always rejected me." But these ex-

planations have been replaced by a new narrative. When I asked patients at COPE and the Aware Program about the "cause" of their symptoms, many responded by referring to neurobiological processes: "The hippocampus is firing too much and telling me to be afraid." "It's the adrenaline, the epinephrine, and the norepinephrine; and the amygdala can either heighten the anxiety or diminish it, depending on which direction I take with my thoughts."

Anna, too, found herself scrutinizing the degree of agency she had over the inner workings of her brain. She enrolled in a neurobiology elective in school and tried to determine which pathological neural process was making her thoughts take on their own timbre. "It's the whole efference copy system," she told me. "I'm double-hearing, I think, and my thoughts are coming back to me as external." But the knowledge did little to ease the phenomenon, and sometimes, in the midst of writing a paper, she would become alarmed that she had ever imagined she could come up with an idea and wonder whether her thoughts were outside of her brain, floating. "The more I focus on my thoughts, the more it feels like they don't actually belong to me," she said. "It physically feels like my head is just completely hollow."

For Anna, there was no single moment of "conversion," no sudden break from one state of mind to the next. If there is a boundary between health and insanity, Anna felt herself creeping across it with pained self-awareness. She remembered as a teenager feeling dismayed by her mother's inability to communicate: her thoughts no longer conformed to the "laws that literally allow us to make sense." Now Anna worried that she, too, had somehow been unmoored from the rhythms of everyday life. Occasionally she could read dense academic texts, but other times she couldn't follow more than a few lines. She stopped going to class. Time no longer felt as if it passed: each moment had become disconnected from the next. She would lie in bed for hours, with the lights off,

watching the play of shadows on a wall that she wasn't sure existed.

An elegant and scrupulous writer, Anna was often dismayed to look back at earlier pages of her journal and see notes about futuristic mind experiments involving implanted memories and telepathy, or the physics of a new sphere of reality. In college, she had romanticized madness, but this was insanity as cliché. It offered no revelation. Knowing that these thoughts were just "symptoms"—a word that struck her as overburdened with consonants—didn't diminish their force. She struggled to create some theory that would explain why people seemed so phony and lifeless and small, as if they could be manipulated in her fingers. She considered many possibilities: they were marionettes, robots, drawings, automatons, agents of an omniscient godhead. Eventually, she settled on paper figurines. It was never a conclusion with which she was content, just the one that seemed to border on reasonable. She would walk down the streets talking to herself and didn't care that people were staring at her, because they were only made of paper.

A year after beginning treatment, she was briefly hospitalized after she came to the clinic incapable of uttering a word. She assumed that the hospital billed her insurance for treating schizophrenia, but she has never seen her formal diagnosis. "Schizophrenia" is a term that Dr. Rosen tends to avoid, since it implies (because of its history, and the way the *DSM* constructs the illness) a bleakly fixed outcome, which is often not the case.⁵

Anna went back and forth between feeling as if there was something inevitable about the cascade of symptoms and wondering whether the illness might not have progressed if she had gotten help even earlier, when the only trouble was a low yet constant hum of anxiety—a state of mind that, for most of us, is

⁵ Some psychiatrists now argue that the term "schizophrenia" shouldn't be used at all because it describes not a coherent entity but a collection of symptoms with widely varying outcomes. In Japan, the syndrome was renamed "integration disorder" in 2002; this led to twice as many patients being informed of their diagnosis.

not abnormal. But her current condition now shades everything that came before. Since psychiatric diagnoses are based almost entirely on the patient's self-report—and Anna always felt that her descriptions were inadequate and distorting—she was left with the feeling that she'd somehow constructed the illness herself. By naming these experiences, she worried she had brought them into being.

Anna said she would have been a "lost soul" had she not found Dr. Rosen, who was the only person with whom she could openly share these experiences, but at times she struggled to maintain belief in the reality of her appointments. "Dr. Rosen will try to convince me, through Socratic reasoning, that the appointment is actually happening," Anna told me in March. She kept her thick, cord-like hair tucked behind her ears and wore a small, fitted V-neck sweater that narrowed her body. "She'll say, 'Anna, you are sitting on a chair, why aren't you falling through the chair?' And I'll have to admit, 'Yes, I am sitting on a chair, and I know the chair is solid because I am sitting on it.' She'll say, 'Well, are you talking to me right now?' And I'll say, 'Yes, I'm talking to you right now.'" She dug her fingers into her hair, cupping the back of her head with both hands. "But the thing is, it goes nowhere. She can reason with me like that, and it doesn't in any way change my mind. I'm perfectly aware that I can navigate space and move in time, and at the same time, none of it feels like it's happening. It just doesn't make a difference."

It wasn't as if she had surrendered to the world of particles; she found it dismaying and unbelievable, and yet she couldn't dismiss it as false. "There's a sense in which the law of contradiction—that something can't be X and not X at the same time—has ceased to matter," she said slowly. "What I know and what I believe no longer coincide, and I can't make them."

The last time I spoke with Anna, in June, more than two years after she first became a patient at the clinic, she said her delusions

had become less compelling. Ordinary activities, like lounging on a bed and trusting that it wouldn't sink through the floorboards, no longer felt alien and unnatural. She said that her psychologist and psychiatrist strongly believed the change came from her taking a new antipsychotic drug, asenapine, for the past two months, but she couldn't convince herself of this explanation and was thinking of stopping the medication. It wasn't as if her perceptions had become normal again, she argued. Hard surfaces still felt airy and insubstantial, but now she made conscious decisions every day to rely on them just as she had before. It was a matter of ignoring swaths of her own perceptual experience, of relearning how to construct the world in her mind.

Along with a renewed interest in the mundane chores of living—eating, reading, exercising, cleaning dishes—she felt overcome by academic ambition for the first time in a year. She was preparing to apply to a new school, where she could start fresh, away from the people who had seen her at her most unhinged. She seemed both calmer and more energetic, and I wondered whether she felt as good as she had before her earliest symptoms emerged, before she ever began doubting the solidity of objects. That was impossible, she told me. The illness was about not just the active symptoms but also a more fundamental shift that made them plausible. "The symptom that bothers me the most is the one I can't even begin to describe," she said, leaning back on her white couch, the sun pouring into her living room.

After months spent struggling to articulate what she was going through, she felt her memories of the experience slipping away. "I can resort to bizarre metaphors, but I can't even in the grossest, roughest way communicate that state of mind." She paused, looking away. "The substance of my experience is thrown into doubt. I am left with this incredibly deep sense that none of these things ever happened to me." ■